Section I

2026-2027 Graduate catalog | Fall 2026

Section II

Graduate: Academic Integrity, Rights and Responsibilities

2024-2025 Graduate Catalog

BSU Policy Statement on Academic Integrity

Graduate study at Bemidji State University offers students the opportunity to achieve an advanced state of knowledge based on the philosophy, history, theory, and methodology of a discipline or field of study. The ability to conduct research, to evaluate and apply the research of others, and to present, orally and in writing, the results of study and research to other scholars and to the community at large are among the professional skills obtained through such study. Graduate courses may be applied to graduate degrees and special programs such as licensures, or may be taken for professional and personal enhancement.

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.

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.

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.

BSU Graduate Studies Committee

The BSU Graduate Studies Committee is composed of graduate faculty. The Committee normally consists of members elected by the faculty. One Dean may be invited to participate. A member of the School of Graduate Studies also attends as a non-voting member. The Committee considers graduate curriculum requests, program proposals, and advises the School of Graduate Studies in formulating and discharging administrative responsibilities. Visit the School of Graduate Studies for Committee membership and minutes of past meetings.

Graduate: Academic Progress and Status

Academic Status

ACADEMIC STANDARDS

A high level of scholarship is expected of all students enrolled for graduate credit, whether or not they are pursuing a degree. Students are required to maintain a minimum cumulative GPA of 3.00 ("B") for all course work attempted. No grade below a C will be permitted to apply to any degree, licensure or certificate program.

FULL TIME/PART TIME STUDENT STATUS

Full-time and Part-time Status: A full-time graduate student is defined as one who has enrolled for a minimum of six (6) 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). Status is based on credit load. For enrollment verification purposes, the graduate student course load is defined as follows:

Full time - at least six (6) credits per semester.
Three-quarter time - four to five (4-5) credits per semester.
Half time - at least three (3) credits per semester.

The maximum graduate credit load is sixteen (16) credits per semester. Students wishing to exceed the maximum load must receive approval from the School of Graduate Studies. Additional information applies for graduate students who are participating in a graduate assistantship. Please see Graduate Assistantships located on the School of Graduate Studies website.

RESIDENCE REQUIREMENTS

The master's degree requires a minimum of twenty (20) graduate credits completed through Bemidji State University. Individual programs may have on-campus residence requirements.

FIFTY PERCENT (50%) REQUIREMENT

According to MnSCU Policy 3.36.1.9, "At least one-half of the required credits in a master's degree, exclusive of a thesis, capstone or similar culminating project, shall be credits restricted exclusively to graduate student enrollment." Therefore, the graduate student's course work must include a minimum of 50% of 6000-level credits, excluding those credits associated with a thesis, research paper, capstone, or similar culminating project.

TIME LIMIT

Graduate credits earned within seven (7) years before the conferring of the degree shall apply to the master's program. All course work, including transfer credits, greater than seven (7) years old is considered to be obsolete and may not be included in a student's program of study.

A high level of scholarship is expected of all students enrolled for graduate credit, whether or not they are pursuing a degree. Students are required to maintain a minimum cumulative GPA of 3.00 ("B") for all course work attempted.

The academic progress of each student is reviewed by the School of Graduate Studies, at the conclusion of each semester or summer term. Students who are not making satisfactory progress will be notified as follows:

Students who are provisionally admitted to the graduate studies program will be dismissed if they do not attain a cumulative GPA of 3.00 ("B") for the initial six (6) 6000-level graduate credits attempted. Students may petition the BSUFA Graduate Studies Committee, through the School of Graduate Studies, for readmission (see Reinstated/Appeal Process in this section).

CONTINUOUS ENROLLMENT

Students not enrolled in degree fulfilling courses and wishing to use University resources must be enrolled in UNIV 6000 at zero credits. Additionally, students must be registered in at least one degree fulfilling course or UNIV 6000 during the semester in which the degree or license is conferred. Note that all thesis students complete six credits of thesis prior to degree completion.

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.

PROGRESS

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.

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 met 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 of one calendar year indicated below.

REINSTATEMENT/APPEAL PROCESS

Students suspended from Bemidji State University who wish to return following the period of suspension must submit a petition to the School of Graduate Studies. 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, as stated and designed by the student's advisor and approved by the Dean of the College, 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.

Graduate: 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

Transfer credits are only accepted from colleges and universities that are regionally accredited and from approved international universities that offer a master's degree program.

- A transfer or substitutions of course credit(s) requires approval by petition (Graduate Petition)
- A minimum letter grade of "B" (3.00) must be associated with each course to be transferred as a core requirement or elective.
- A maximum of ten (10) semester credits or equivalent will be considered in transfer, and all transferred course work must have been completed within the seven [7] years before the conferment of a BSU master's degree.
- Course work to be transferred into the guided electives category, in which a non-letter grade was received, will not be considered.
- Transferred courses will apply for credit only; grades of transferred courses will not be included in the computation of the Bemidji State University grade point average.
- All course work to be considered as transfer courses or substitutions must have the approval of the advisor, program director and/or department chair, Dean, and the School of Graduate Studies and is reviewed on a student-by-student basis.
- Requests to register at another institution for the purpose of transferring credit into the program of study should receive advanced petition approval.
- Official transcripts must be on file before transfer credits are posted to student's BSU transcript.

Any student who has cause to request an exception and/or course substitution to existing academic requirements must fill out a Graduate Petition to initiate the request. Students requesting an exception should submit a petition to the appropriate department, Dean and School of Graduate studies. The student's advisor, department chair and Dean must sign the form.

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 contact the Graduate Office or Admissions Office.

CHANGE OF DEGREE OR PROGRAM

A change of degree or program requires approval by petition (Graduate Petition).

DUPLICATION OF COURSE WORK

A course taken at the undergraduate level cannot be retaken for credit at the graduate level. An appropriate course and credit substitution or waiver must be made.

Graduate: Registration Policies

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. Bemidji State University complies with Minnesota Statute 197.775 which exceeds all criteria of Title 38 United States Code Section 3679(e).

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.

Graduate: Registration

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.

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 "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 755-2053 to set up a confidential meeting, or contact your academic advisor.

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.

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 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.

Senior Citizens

https://www.bemidjistate.edu/admissions/graduate/apply/senior-citizens/

Graduate: Grades & Grading

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 the computing the GPA. (See "Common Market Program" under Academic Degees and Programs.)

4. All BSU courses taken toward a graduate program count in the computation of those GPAs and, therefore, must be taken for a letter grade. Exceptions to this include student teaching, internships, and other coursework specifically intended to be graded as S/U.

Grade Types

The work of a student is recorded as follows:

A+ (4.0 quality points)
A (4.0 quality points) | excellent
A- (3.67 quality points)
B+ (3.33 quality points)
B (3.0 quality points) | very good
B- (2.67 quality points)
C+ (2.33 quality points)
C (2.0 quality points) | average
C- (1.67 quality points)
D+ (1.33 quality points)
D (1.0 quality point) | passing
D- (0.67 quality point)
F (0.0 quality points) | failure
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 at Northwest Technical College, Bemidji, MN. Subsequent grade records are stored and backed up on computer disks.

Grade Explanations

I - Incomplete: To be used when prior arrangement is made between the student and the instructor or in the case of a verifiable emergency situation. An incomplete must be resolved by the end of the next regular term; 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 resolved 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.).

Graduate: Graduation

Graduation

Requirements for All Masters Degrees (MA., MS., MBA., MPAC, MSPED., MAT, GC)

Graduate Program Requirements

Bemidji State University offers multiple pathways toward earning a Master's degree. Academic departments through the curricular process and approved by the Vice President of Academic Affairs choose the pathway (credit count and final project) for the graduate degrees they offer. Following the best practices established by the Council of Graduate Schools, Bemidji State University offers a variety of pathways for completing a master's degree as outline below.

Master's Completion Project

Each graduate program has chosen the final project completion route for its master's degree program. A final project can come in a variety of forms: thesis (original research or an original creative project), research paper (comprehensive review and exposition of scholarly works within a disciplinary area), a capstone project (project based or simulations), and/or written comprehensive examinations. A Master of Arts or a Master of Science may utilize any of the final project forms listed above as determined by the department, college Dean and VP for Academic Affairs but typically focuses on a thesis or research paper but can utilize the capstone project. The expectation for the Master of Arts or Master of Science is that the final project will be submitted in written format (utilizing appropriate disciplinary writing format: MLA, APA, etc.) to the School of Graduate Studies have been approved by all required personnel of the university

Admission to Candidacy

Admission to the university and a graduate program signifies that a student has satisfied the entrance requirements that normally will lead to a degree. Advancement to candidacy, formally admits the student into a graduate degree program with the intent of earning a master's degree. Candidacy is granted to a student who has demonstrated, by initial credits and subsequent grades earned in a Bemidji State University graduate program, the ability to produce quality work in accordance with the program, college and university expectations

1. Requirements for Admission to Candidacy: All candidates are required to satisfy any conditions attached to their admission and achieve a cumulative GPA of at least a 3.00 ("B") for course work attempted.
2. Application for Admission to Candidacy: Students must submit the Admission to Candidacy Form upon completion of 9-12 graduate-level credits. It is the student's responsibility to initiate contact with the advisor for the purpose of applying for candidacy, designing a plan of study, and (where/when appropriate) forming an advisory committee.
3. Admission to Candidacy for Dual Degree/Program: Student who are attempting two earn two graduate degrees simultaneously at Bemidji State University must submit an Admission to Candidacy Form for both programs. No more than 10 credits of core and elective courses may count across programs.
4. A Program of Study or Application for Admission to Candidacy: The program of study a) must be determined in consultation with the student's advisor, b) must list all course work completed as well as all anticipated course work to be used to satisfy degree requirements, and c) requires the approval of the advisor, the department/program chair, the Dean, and the School of Graduate Studies.
5. Changes to an Approved Program of Study: A Graduate Petition approved by the advisor, the department/program chair, Dean, and the School of Graduate Studies, is required if the student intends to substitute course work in areas other than the elective category. A revised second set of candidacy plans must be approved if the student requests more than three (3) non-elective courses, or six (6) credits, in substitutions to the approved program.
6. Transfer Credit: All transfer credits should be indicated on the Application for Admission to Candidacy. No more than 10 credits can be transferred from another accredited university towards a graduate program at Bemidji State University.
7. Students must consult with their assigned advisor as to the master's completion project pathway to be utilized and indicated on the Application for Admission to Candidacy.

Thesis Option

1. Coursework Completion: A minimum of 30 credits is required in the thesis option including the credits granted for the thesis. A maximum of 10 graduate semester credits may be considered in transfer from another regionally accredited U.S. or approved international college or university. A cumulative grade point average of 3.0 for all coursework and completion of all program requirements are required prior to the student's final thesis oral defense and submission. 50% of coursework excluding the thesis credits must be at the 6000 level.
2. Submission of the Culminating Project Committee Approval Form. The initial date for convening the committee must be recorded on the form. The student is not permitted to submit the Culminating Project Committee Approval Form during the same semester in which they plan to graduate, it must be submitted at least one semester prior to the graduation semester. All committee members must be approved and hold Graduate Faculty status at Bemidji State University. The committee will be chaired by the principal thesis advisor and will be composed of at least two graduate faculty. A graduate faculty representative will be appointed by the School of Graduate Studies as an outside process monitor.
3. Submit the Application for Graduation during the first week of the final semester.
   The Application for Graduation is valid for one semester only and must be resubmitted if the student wishes to change semesters.
4. Schedule the final defense/oral examination with the committee.
   a. Notification of Final Defense/Oral Examination must be

submitted to the Office of Graduate Studies three weeks prior to the selected date for the final defense/oral examination. At this time, the School of Graduate Studies will appoint the Graduate Faculty Representative

b. Cannot be held during the same semester when the initial Culminating Project Committee Approval Form is submitted.

5. A student in the Thesis Option is required to submit an original manuscript and one copy of the thesis to the School of Graduate Studies in partial fulfillment of the requirements for the degree. All theses must be prepared in accordance with the "Handbook for the Preparation of the Thesis or Research Paper."
6. Department submits "Confirmation of Degree Requirements" Form.

Research Paper Option

1. Coursework Completion: A minimum of 30 credits is required in the research paper option including the credits granted for the research paper. A maximum of 10 graduate semester credits may be considered in transfer from another regionally accredited U.S. or approved international college or university. A cumulative grade point average of 3.0 for all coursework is required and completion of all program requirements are required prior to the student's final oral defense and submission. 50% of coursework excluding the research paper credits must be at the 6000 level.
2. Submission of the Culminating Project Committee Approval Form. The initial date for convening the committee must be recorded on the form. The student is not permitted to submit the Culminating Project Committee Approval Form during the same semester in which they plan to graduate, it must be submitted at least one semester prior to the graduation semester. All committee members must be approved and hold Graduate Faculty status at Bemidji State University. The committee will be chaired by the principal advisor and will be composed of at least two department faculty and one additional Graduate Faculty member. A graduate faculty representative will be appointed by the School of Graduate Studies as an outside process monitor.
3. Submit the Application for Graduation during the first week of the final semester.
   The Application for Graduation is valid for one semester only and must be resubmitted if the student wishes to change semesters.
4. Schedule the final defense/oral examination with the committee.
   a. Notification of Final Defense/Oral Examination must be submitted to the Office of Graduate Studies three weeks prior to the selected date for the final defense/oral examination. At this time, the School of Graduate Studies will appoint the Graduate Faculty Representative.
   b. Cannot be held during the same semester when the initial Culminating Project Committee Approval Form is submitted.
5. Department submits "Confirmation of Degree Requirements" Form.

Capstone Option

1. Coursework Completion: A minimum of 30 credits is required for the Capstone option including the credits granted for the Capstone course and all program requirements must be fulfilled. A maximum of 10 graduate semester credits may be considered in transfer from another regionally accredited U.S. or approved international college or university. A cumulative grade point average of 3.0 for all coursework and completion of all program requirements are required prior to the student's final capstone submission. 50% of coursework excluding the capstone credits must be at the 6000 level.
2. Submission of the Culminating Project Committee Approval Form. All committee members must be approved and hold Graduate Faculty status at Bemidji State University. The committee will be chaired by the advisor and will be composed of at least one other graduate faculty member.
3. Submit the Application for Graduation during the first week of the final semester.
   The Application for Graduation is valid for one semester only and must be resubmitted if the student wishes to change semesters.
4. Schedule the final review of the Capstone project with the committee.
5. Department submits "Confirmation of Degree Requirements" Form.

Written Comprehensive Examination Option

1. Coursework Completion: A minimum of 30 credits is required in the written comprehensive examination. A maximum of 10 graduate semester credits may be considered in transfer from another regionally accredited U.S. or approved international college or university. A cumulative grade point average of 3.0 for all coursework and completion of all program requirements are required prior to the student's submission of the written comprehensive exams. 50% of coursework must be at the 6000 level, no credits are given for the written examination
2. Submission of the Culminating Project Committee Approval Form. Three members of the department, chaired by the primary advisor, will serve as the written examination readers. The student is not permitted to submit the Culminating Project Committee Approval Form during the same semester in which they plan to graduate, it must be submitted at least one semester prior to the graduation semester. All committee members must be approved and hold Graduate Faculty status at Bemidji State University.
3. Submit the Application for Graduation during the first week of the final semester.
   a. The Application for Graduation is valid for one semester only and must be resubmitted if the student wishes to change semesters. The application must contain the dates for the written examinations.
4. Schedule the written examinations with the committee.
   a. Notification of the Examination date must be submitted to the Office of Graduate Studies three weeks prior to the selected date for the written examination.
   b. The committee members will compose five written comprehensive examination questions for the student's schedule examination date and submit the questions to the School of Graduate Studies.
   c. During the examination period, the student will select three out of five questions to answer for the exam. The questions will be submitted electronically to the School of Graduate Studies.
   d. The School of Graduate Studies will send copies of the written examinations to the three committee members, who will independently grade the examination questions as Satisfactory "S" or Unsatisfactory "U". In order to pass the examination, a student must earn at least 2 "S" grades per each question submitted from the three graders on the committee.
   e. If a students does not pass the final examinations on the first round, they are permitted to take the examinations again during the following semester. Only two attempts are permitted for the examination process, if a student does not pass during these two attempts, they will be dismissed from the program.
5. Department submits "Confirmation of Degree Requirements" Form if the student successfully passes the written examinations.

Graduate: Understanding Programs

Graduate Studies

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. International applicants whose first language is other than English must also submit the TOEFL and receive a score of at least 61. Some programs may have higher minimum score requirements and there are other ways the proof of English proficiency can be met. See International Program Center website for details.

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.

Graduate: 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.

Maximum Credit Load

Residence Credit

Fifty Percent (50%) Requirement

According to MnSCU Policy 3.36.1.9, "At least one-half of the required credits in a master's degree, exclusive of a thesis, capstone or similar culminating project, shall be credits restricted exclusively to graduate student enrollment." Therefore, the graduate student's course work must include a minimum of 50% of 6000-level credits, excluding those credits associated with a thesis, research paper, capstone, or similar culminating project.

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

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.

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.

Graduate: 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

5000 Level Courses

Graduate courses offered at the 5000 level may be double numbered with courses at the 3000 or 4000 level. However, all such courses require prior approval through the curriculum process. Courses at the 5000 level concurrently offered with undergraduate courses include additional graduate-level assignments, typically in the form of an advanced paper or project, reading assignments, examinations, and conferences. A differentiated grading system is also required for graduate students in double-numbered courses.

6000 Level Courses

Graduate courses at the 6000 level are available to graduate students only. Undergraduate students may not register or attend 6000-level courses.

All-University Courses

The All-University courses listed below are generally not included in the formal semester or summer term schedules. Registration in such courses requires the approval of the instructor, department/program chair, Dean, and the School of Graduate Studies.

5910, 6910 DIRECTED INDEPENDENT STUDY
Arranged individual study.

5920, 6920 DIRECTED GROUP STUDY
Arranged group study.

5930, 6930 EXPERIMENTAL COURSE
A course proposed for inclusion in the University curriculum; may not be offered more than two times as an experimental course.

5940, 6940 IN-SERVICE COURSE
An in-service course is for practitioners seeking additional training or expertise in their current vocation or profession. The 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.

5960, 6960 SPECIAL PURPOSE INSTRUCTION
A course intended for specific groups or organizations outside the University community.

5970, 6970 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.

5980, 6980 RESEARCH
Research carried out by the student that is based on appropriate methodology and scholarship.

5990, 6990 THESIS
A thesis written by the student that reports extensive original research carried out by the student and demonstrates appropriate methodology and scholarship.

Academic Procedures

READMISSION AFTER DISMISSAL

A graduate who is dismissed based on academic performance or academic irregularities may petition for admission following an absence of one calendar year from the date of formal dismissal. The petition (Graduate Petition) for readmission requires the approval of the department/program chair, Dean, and the School of Graduate Studies.

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.

WRITTEN STUDENT COMPLAINTS

The University maintains a record of written student complaints filed with the offices of the President, the Vice President for Academic Affairs, the Vice President for Student Development & 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.

Section III Other

Graduate Assistantship Policies

Bemidji State University
School of Graduate Studies

Students who need assistance in funding their graduate education should consider the possibility of a graduate assistantship. Students who are awarded an assistantship receive a stipend plus tuition waiver during their appointment. Typical assignments might be teaching introductory classes, working as lab or research assistants, or serving in departments or specific administrative offices of the University.

All graduate students who wish to participate in a graduate assistantship must meet the requirements according to the specified Policies. There may be significant differences between an assistantship during the academic year and a summer assistantship.

Policies

- **The Nature of the Appointment**
  Students appointed to graduate assistantships shall be employed to perform specific professional assignments such as assisting with an educational project, teaching, or research. The maximum number of clock hours for full-time non-teaching graduate assistants is twenty (20) hours per week. Graduate assistants whose primary assignment is instruction shall teach no more than four (4) credit hours per semester. If the graduate assistantship is for a purpose other than those professional assignments listed above, approval must be received before an appointment is made by the Director, School of Graduate Studies.
- **Reappointment**
  All reappointments are contingent upon satisfying all academic progress requirements and the availability of funding. In addition, each department/program/area may have requirements regarding assistantship renewal in addition to the academic requirements contained in the current graduate bulletin.
- **Academic Criteria**
  All graduate students who have been admitted to graduate studies for the purpose of pursuing course work that will normally lead to a master's degree are eligible for consideration. An undergraduate cumulative grade point average (GPA) of at least 2.75, or the equivalent, is required for all programs of study. Individual programs may have higher minimum GPA requirements. Please contact the School of Graduate Studies about program specific requirements. Students who have been "provisionally" admitted to graduate studies may not be eligible for a graduate assistantship until all provisions attached to admission have been satisfied. All provisionally admitted graduate students receiving an assistantship will be reviewed each semester for continuation. A provisionally admitted student may not fall below a 3.00 GPA. Graduate students who have previously been awarded a master's degree are eligible for consideration if readmitted for the purpose of pursuing either a second designation or an additional master's degree.

Compensation

- **Submission of Appointment Form**
  Departments/programs are required to submit the Graduate Assistant Appointment Form, provided by the School of Graduate Studies, **no later than the tenth instructional day of the semester** in which the appointment becomes effective if students are to receive full compensation.
- **Resident Tuition Status**
  Graduate assistants will receive in-state resident tuition status. Students appointed to graduate assistant positions are considered residents of Minnesota for the purpose of determining tuition during the period of the appointment.
- **Stipend**
  The stipend for full-time graduate assistants is $9,500 for the academic year (two [2] semesters). This amount will be equally allocated during each semester (20 pay periods). Assistantships are financed out of the general University budget, department funds, or external grants. Starting in 2022 graduate assistant salaries will be evaluated every four years. In an effort to keep salaries in line with cost-of-living increases, the University will provide a justifiable explanation of the salary adjustment, or lack thereof, to the BSUFA Graduate committee for distribution to current graduate assistants. University justification shall include a comparison of recent graduate assistant salary increases to cost of living and graduate tuition increases over the same timeframe. Some departments may offer additional stipends and tuition waivers based on non-University funding. Contact individual departments for more information.
- **Tuition Award**
  Full-time graduate assistants whose funding is provided by the University will receive a tuition waiver for up to fifteen (15) credits during the academic year. Students can distribute these credits over the Fall and Spring semesters as they choose. Students planning on taking less than six (6) credits in any semester should check with the Financial Aid Office to make sure they meet all requirements related to fulltime status.
  Half-time graduate assistants will receive a total tuition waiver of up to six (6) graduate semester hours over the entire academic year and can distribute these credits as they choose.
  Summer graduate assistants will receive a tuition waiver of up to three (3) graduate credits for the entire summer.

  The tuition awards described above shall apply to graduate course work only. There is no carry-over of a tuition waiver from one academic year to the next. No student can have a graduate assistant that is funded by the BSU allocation for more than 5 semesters. Summer graduate assistantships are not part of the BSU allocation and must be funded by the department or other outside funding.

  Attention: Effective January 1, 1995, universities may need to add the value of all graduate tuition waivers to the employees' **TAXABLE** income. If it is determined that the tuition waiver for a particular Assistantship is taxable, the dollar value of the graduate tuition waiver will need to be added to the student's paycheck. Taxes will be taken on the tuition waiver amount, including Federal, State, and FICA. The value of the waiver will be divided over as many paychecks as possible each semester to lessen the tax burden on each paycheck. The value of the waiver WILL be included in the student's taxable earnings on their W-2 for the year. If there are questions about this process please contact grad@bemidjistate.edu.
- **Additional Credits/Student Fees**
  Graduate students are required to pay tuition for all semester hours beyond the tuition waiver and are responsible for the payment of all student fees. LATE FEES WILL BE ASSESSED and are the responsibility of the student.
- **Graduate Assistantships with Other Forms of Financial Aid**
  While the School of Graduate Studies designates that 6 credit hours per semester is a full-time load for graduate assistants, the Financial Aid office recognizes that **federal loans are based on a load of 9 credit hours per semester**. If graduate students wish to receive financial assistance beyond a graduate assistantship, they will need to complete **nine (9) credit hours per semester for a full-time load** and no less than **(5) credit hours per semester for a half-time load** to remain eligible for additional financial aid. **Please note:** Funding from graduate assistantships can affect student loan

eligibility. Students seeking need-based loans from the University's financial aid office for additional costs may find the total amount they can borrow reduced by the tuition assistance of their graduate assistantship.

- **Health Insurance**
  Graduate assistants are not covered by the University's faculty, staff and administrative insurance policies. Please reference the Insurance section of the Student Center for Health and Counseling website for additional information.
- **Retirement**
  Graduate assistants do not contribute to the Teacher's Retirement Fund.
- **Social Security**
  Graduate Assistants are not covered by Social Security.
- **Other Employment at BSU**
  Students are only allowed to have one graduate assistanship at a time.

Academic Progress Requirements

- **Minimum Semester Hours**
  The minimum course load to be carried by a full-time graduate assistant is six (6) graduate credits. Additional credits taken in any given semester may NOT be carried forward to satisfy minimum requirements in other semesters, except for a graduate assistant who has completed all course work but has not completed the research project or thesis. In all such cases, however, the department chair or program director is required to provide the School of Graduate Studies with the intended period that an assistantship is to be retained. Approval of all such assistantships is subject to approval by the Director, School of Graduate Studies.
- **Cumulative Grade Point Average**
  A 3.00 GPA ("B" average) must be maintained for all course work attempted. Graduate assistants that do not satisfy the minimum requirements will receive one additional semester to satisfy any deficiency.
- **Incomplete and In-progress Courses**
  Graduate assistants are not permitted to carry forward more than three (3) semester credits of incomplete ("I") or in progress ("IP") grade designations from a prior semester or summer, with the exception of thesis, research paper, or internship/practicum credits. Students who have satisfied all course work requirements, with the exception of research paper or thesis credits, should contact the School of Graduate Studies regarding the minimum semester hours and grade point average requirements.
- **Any failure to satisfy these academic requirements, or the falsification of any information, may result in the termination of the GA appointment.**

For more information on Graduate Assistantship positions email grad@bemidjistate.edu.

Bemidji State is an equal opportunity educator and employer.

March 2024

Membership Criteria for BSU Graduate Faculty

Bemidji State University
School of Graduate Studies

1. **The Purpose for Selection and Review of Graduate Faculty**
   The quality of the graduate degrees granted by Bemidji State University depends upon the qualifications and expertise of faculty involved in the entire graduate educational experience. Selection and review of Graduate Faculty is designed to account for quality, expertise, and participation in graduate education. This process is independent of the PDP process.

2. **Procedures for nomination to membership**
   Nominations for appointment/re-appointment as either Graduate Faculty (Full orAssociate) or Emeriti Graduate Faculty (Full or Associate) shall originate within the department.

   Faculty may apply by submitting an application form, a current PDP, a current Vita, and any other documents they consider relevant. Applications may be done concurrently with the PDP reviews. No single qualification beyond the minimum educational criterion (see membership criteria)isbyandof itselfjustificationformembership.GraduateFacultynomineeswhoarenot subject to the PDP process should instead submit a brief document outlining their achievements related to the five eligibility/ appointment criteria.

   The application materials shall be reviewed by the faculty member's department/ program chair. Their advisory recommendations, if any, shall be forwarded to the dean of their respective college. The dean may obtain advisory recommendations on the application from the relevant Graduate Program coordinator (if any) as well as from the BSU Graduate Studies Committee. Subsequently, the dean will forward information to Graduate Studies who will review for completeness and forward all documentation to the Vice President for Academic Affairs. Each preparer of an advisory recommendation shall send a copy to the applicant. The Vice President shall formally grant or deny appointment to Graduate Faculty status.

   Graduate Studies will notify candidates as to the outcome of the nomination and approval process.

3. **Graduate Faculty Status**
   1. **Full Graduate Faculty Status**
      1. Eligibility/Appointment criteria:
         Appointment
         iscontingentonthefollowingcriteria(criteriabthroughea
         and available).
         1. Terminal Degree.
            Membership shall require an appropriate terminal degree from regional accredited orapprovedcollege/university;
            membershipislimitedtofacultywhoholdate
            tenure-track, or full-time fixed term position.
         2. Graduate Teaching Effectiveness and Fulfillment of Professional Responsibilities: Post-secondary instructional experience, preferably at the 5000- and/or 6000-level (or equivalent).
         3. Scholarly and Professional Activity: Recent professional achievements should include evidence of scholarship and/or creativity.
         4. Evidence of Continuing Preparation and Study.
         5. Contributions to Student Growth and Development: Directing of student research,

serving as a member of student research and examinations committees, serving as a graduate advisor.

6. Service to the University and Community: Serving on students' final oral examinations as the graduate representative at-large at least two-times during the appointment period; involvement supportive of graduate education, e.g., involvement in campus and/or departmental graduate committees.

2. Length of Appointment
   Appointment to Full Graduate Faculty lasts until 3 years after retirement.
3. Duties, Responsibilities, Rights, and Privileges:
   Duties, responsibilities, rights, and privileges of the Full Graduate Faculty include (as appropriate and available):
   1. Serve on student's'final oral examinations as the graduate representative at-large at least 2-times during the appointment period;
   2. Provide 5000-and/or 6000-level course instruction;
   3. Direct student graduate research;
   4. Serve as a member of student research and examination committees;
   5. Serve as a graduate adviser.
4. Other Appointments:
   Appointment criteria:The Presidentof the University,theVice President forAcademic Affairs, and College Deans shall be granted the status of ex-officio members of the graduate faculty for the duration of their service in this capacity.

2. **Associate Graduate Faculty Status**
   1. Eligibility/Appointment criteria:
      Appointment and re-appointment is contingent on the following criteria (criteria 2 through 5 as appropriate and available).
      1. Graduate Degree. Associate Graduate Faculty members with appropriate terminal degrees or documented texted experience,may provide 5000-levela nd 6000-level offerings at the discretion of the department as approved by the College Dean and Vice President for Academic Affairs
      2. Graduate Teaching Effectiveness and Fulfillment of Professional Responsibilities. A minimum of 3 years post-secondary instruction, preferably at the 5000-level (or equivalent), and other related professional experience that supports the course work to be offered.
      3. Scholarly and Professional Activity. Recent professional achievement, including evidence of thesis-related scholarship and/or creativity.
      4. Evidence of Continuing Preparation and Study.
      5. Contributions to Student Growth and Development.Participating on student research and/or oral examination committees.
      6. Service to the University and Community. Serving on students' final oral examinations as the graduate representative at-large at least one time during the appointment period; involvement supportive of graduate education, e.g., involvement in campus and/or departmental graduate committees.
   2. Length of Appointment:
      Appointment to Associate Graduate Faculty is for three years. At the end of three years the member must be nominated and reviewed again.
   3. Duties,Responsibilities,Rights, and Privileges:
      Duties,responsibilities, rights,and privileges of the Associate Graduate Faculty include (as appropriate and available):
      1. Serve on a student's final oral examination as the graduate representative at-large at least 1-time during the appointment period;
      2. Provide 5000-level course offerings; Associate Graduate Faculty members with appropriate terminal degrees, may provide 6000-level course offerings at the department's discretion;
      3. Assist with student graduate research;
      4. Serve as a member of student research and examination committees, but they cannot chair such a committee.
   4. Other Appointments:
      For non-teaching library faculty appointment criterion 1.2 "A minimum of 3 years post- secondary instruction" may be waived to be granted the status of member of the Associate Graduate Faculty. These 'Library Graduate Faculty members' may not provide any graduate-level course offerings.
3. **Temporary Graduate Faculty Status**
   Newly hired faculty may be appointed to Temporary Graduate Faculty for one semester by the Dean of the respective college upon request from relevant Department Chair or Graduate Program Coordinator.

Documentation (temporary application and résumé) shall then be forwarded to the Director, School of Graduate Studies for processing. Once approved by the Provost and VP of Academic Affairs, the Director will notify faculty, Dean, and department.

Duties, responsibilities, rights, and privileges (Full vs. Associate) are based on the graduate degree the newly hired faculty holds. Prior to the expiration of the Temporary Graduate Faculty Status, the faculty member would need to apply for the appropriate Graduate Faculty (see above).

4. **Retired Graduate Faculty**
   Newly retired faculty of Bemidji State University can continue to hold their status of Graduate Faculty (full or associate) for the remaining years of their appointment or for 3 years afer retiring, whichever is shorter. Once their appointment as Graduate Faculty expires, the department/program can request an appointment to Retired Graduate Faculty status.
   1. Eligibility/Appointment Criteria:
      Appointment and Re-appointment to Retired Full and Retired Associate Graduate Faculty follows the same criteria as for regular Full and Associate Graduate Faculty, respectively.
   2. Length of Appointment:
      Appointment to Retired Graduate Faculty (Full and Associate) is for three years. At the end of three years the member must be nominated and reviewed again.
   3. Duties, Responsibilities, Rights, and Privileges:
      Duties, responsibilities, rights, and privileges of the Retired Graduate Faculty include (as appropriate and available):
      1. Provide 5000- and/or 6000- (retired full only) level course instruction;
      2. Assist with student graduate research;
      3. Serve as a member of student research and examination committees;

   Retired Graduate Faculty Cannot
   1. Serve as a chair of student research and examination committees;
   2. Serve as a graduate advisor;
   3. Serve on students' final oral examinations as the at-large graduate representative

5. **Community Graduate Faculty Status**
   Qualified community members who are not employed as faculty members by the university may serve as associate graduate faculty only.

Accounting

Accounting Courses

ACCT 5100 Accounting Theory and Research (3 credits)
Selected contemporary and international issues in financial accounting, with an emphasis on reading and interpreting professional accounting literature to prepare financial statements according to generally accepted accounting principles (GAAP). This course is designed as an overview of professional literature on financial accounting for majors in professional accountancy. Also appropriate for controllers and others interested in the application of GAAP. Prerequisite(s): Accounting Bachelor's degree.

ACCT 5150 Advanced Accounting Systems (3 credits)
This course provides an in-depth coverage of advanced accounting information systems topics that will be critical for future accounting professionals. These include the use of data analytics in accounting for management support, auditing engagements, internal control tools, etc., and advanced excel skills like pivot tables and lookups. Prerequisite(s): Acceptance into the Master of Professional Accountancy (MPA) program.

ACCT 5160 Business Communication (3 credits)
This course is intended to provide students with increased knowledge and communication competencies in a business setting. The course is divided into three sections, which allows students to analyze data and present recommendations to a simulated investing business committee. Students will execute higher-level excel functions, produce professional business correspondence based on excel data, and prepare and deliver individual and group presentations applicable to their findings. Overall, this course emphasizes the importance of professional communication used in business settings.

ACCT 5302 Strategic Cost Management (3 credits)
Strategic cost management integrates cost information with strategy. Key cost drivers will be identified for essential activities in organizations (both manufacturing and service) processes. Appropriate strategic cost management framework will be applied to reduce costs in key areas on which organization success depends. Cost management systems and management controls systems are applied to strategy. The application of instruments and models of strategic cost management will result in a more realistic presentation of the amount of costs and achieving more efficient and effective operations.

ACCT 5320 Accounting Analytics (3 credits)
This course provides an understanding of the use of statistical and quantitative models to effectively manage and utilize information for the purpose of auditing, taxation, and business decision-making. Concepts covered include data analysis and visualization, comparison of software for internal controls testing, statistical inference, and estimation. Students will use analytics software such as Access (including SQL), Tableau, Power BI, Teammate, IDEA, or other software for computer-assisted auditing and tax analysis techniques. Altrix, Sas Studio, or other similar software may also be used. Competency in Microsoft Excel is required. Prerequisite(s): Bachelor's Degree in Accounting or admission into the MPA program.

ACCT 5405 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. This course covers the complexity of tax law affecting business entities, gifts, and estates. VITA participation will also be expected.

ACCT 6120 Business Environment and Concepts (BEC) (3 credits)
An in-depth study of business environment and concepts adapted to current business conditions. Prerequisite(s): Accounting Bachelor's Degree or instructor consent.

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

Biology

.

Programs

- Biology, M.S. *master*

Biology, M.S. *master*

Biology, MS

Required Credits: 30
Required GPA: 3.00

I. REQUIRED CORE
Complete the following courses:

- BIOL 6338 Advanced Science Communication (3 credits)
- BIOL 6350 Computer Applications in Statistics (3 credits)
  *or*ENVR 6410 Environmental Data Science and Modeling (3 credits)
- BIOL 6890 Grants and Contracts (3 credits)
  or ENVR 6790 Environmental Project Management (3 credits)

Must be taken 4 times over 4 semesters for 4 credits:

- BIOL 6880 Seminar (1 credit)
  or ENVR 6880 Seminar (1 credit)

II. REQUIRED ELECTIVES
Select, with consent of advisor, a minimum of 11 semester credits of graduate level coursework.

III. REQUIRED RESEARCH THESIS
Complete the following course for 6 credits:

- BIOL 6990 Thesis (1-4 credits)

Pathway 2: Non-Thesis Option

I. REQUIRED CORE
Complete the following courses:

- BIOL 6330 Current Topics in Biology (3 credits)
- BIOL 6338 Advanced Science Communication (3 credits)
- BIOL 6350 Computer Applications in Statistics (3 credits)
  or ENVR 6410 Environmental Data Science and Modeling (3 credits)
- BIOL 6460 Teaching and Learning in College STEM (3 credits)
  or ENVR 6250 Advanced Environmental Studies (3 credits)
- BIOL 6890 Grants and Contracts (3 credits)
  or ENVR 6790 Environmental Project Management (3 credits)

II. REQUIRED ELECTIVES

Select, with consent of advisor, a minimum of 12 semester credits of graduate level coursework.

III. REQUIRED CAPSTONE (Note: Completed in student's final semester.)

- BIOL 6899 Capstone (3 credits)

or ENVR 6899 Capstone (3 credits)

Biology Courses

BIOL 5030 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.

BIOL 5120 Soils (4 credits)
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological significance. Lecture and laboratory.

BIOL 5200 Freshwater Invertebrates (4 credits)
Morphology and functional roles of representative freshwater invertebrates, their ecological and habitat interrelationships. Lecture and laboratory.

BIOL 5210 Parasitology (4 credits)
The biology of animal parasites, their identification, biochemistry, immunology, and epidemiology. Lecture and laboratory.

BIOL 5250 Human Anatomy (4 credits)
Anatomical structure of the human body, from individual organ systems to the integrated whole.

BIOL 5260 Human Physiology (4 credits)
Physiological and pathophysiological principles and control mechanisms of organ systems within humans. Lecture and laboratory.

BIOL 5270 Histology (4 credits)
Microscopic anatomy of vertebrate tissues and organs with functional correlations. Lecture and laboratory. Prerequisites: BIOL 5250, BIOL 5260

BIOL 5280 Pathology of Human Disease (4 credits)
This online course introduces the theories of pathological mechanisms that compromise healthy systems. The content is designed to compare abnormal structure and function of organ systems, discern how cellular function influences disease, and research treatment options for disease. Attention will be paid to how disruption of homeostasis manifests in human disease.

BIOL 5290 Introduction to Medical Imaging (3 credits)
This course compares different medical imaging modalities (X-ray, CT, MRI, ultrasound) based on their physics and medical use. The course also provides students with an introductory overview of human anatomy, viewed in body sections as it relates to imaging, and pathology correlation to imaging appearance.

BIOL 5299 Virology (3 credits)
This course explores virology, which is the study of viruses that infect all manner of life on earth. We will focus on animal viruses and those that impact human health. Important discoveries from viruses that infect microbes, plants, and non-human animals will be included. Prerequisite(s): One year introductory biology or consent of instructor.

BIOL 5310 Entomology (3 credits)
The biology of insects and their importance.

BIOL 5330 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.

BIOL 5337 Science Communication (3 credits)
This online course includes training in the skills, tools, and habits of mind of the practicing scientist. These skills include navigating and understanding the scientific literature, framing evidence-based and model-driven scientific questions, proposing and testing hypotheses, conducting research responsibly and ethically, analyzing and visualizing data, and communicating scientific rationale and results in lab meetings, presentations, research funding applications, and job searches.

BIOL 5339 Bioethics (3 credits)
In this online Bioethics course we will grapple with the many philosophical, ethical, and practical questions created by advances in medicine and biology using a combination of readings, case studies, scientific literature, and popular culture. The course has undergraduate and graduate sections and is intended for students in their Junior year of college or later. Topics include prenatal testing, abortion, assisted suicide, human augmentation/transhumanism, cloning, disability rights, animal rights, genetically modified organisms, and environmental ethics.

BIOL 5360 Developmental and Tumor Biology (3 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.

BIOL 5361 Limnology (4 credits)
Introduction to the biology, chemistry, geology, and physics of lakes and streams. Lecture, field, and laboratory work.

BIOL 5362 Streams and Rivers (4 credits)
An introduction to the physical characteristics, chemistry, and biology of lotic systems such as streams and rivers. Includes information on morphology, hydrology, and alteration of these natural systems. Includes laboratory simulations and field exercises. Lecture and laboratory.

BIOL 5380 Molecular Genetics (3 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.

BIOL 5400 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.

BIOL 5420 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.

BIOL 5447 Genomics (3 credits)
Genomics is the study of the content, structure, organization, evolution, and conservation of whole genomes. Because of its reliance on precision instrumentation and scale, and the unprecedented volume of data produced, genomics is unusual among biological disciplines in its integration of engineering, statistics, and information science. Genomics also requires the biologist to engage in systems thinking by taking a wide view of the dynamic physical and informational network that comprises a single genome. One must further consider the human genome as itself a component of an even larger network of genomes that make up the holobiont¿that¿s us plus our always-changing resident community of microbial pals. After covering these and other topics, and carrying out a substantial genome annotation project for the lab component of the course, we explore personal genomics, or how all this information and understanding affects our lives as 21st century human beings.

BIOL 5460 Stem Cells and Regenerative Medicine (3 credits)
This course is designed as an introduction to stem cell biology and the medical applications of stem cells including in the field of regenerative medicine.

BIOL 5470 Introduction to Vaccinology (4 credits)
This course will introduce students to the field of vaccinology and aspects of the bioscience industry related to vaccine discovery, production, and testing. Students will learn about the history of vaccines; the production of vaccines in a regulated environment; the benefits and concerns with vaccine use. The course will include a discussion of vaccine types, delivery, efficacy, and safety. Students will learn about the mechanism of action of different vaccines; traditional verses modern vaccine production methods, the process of clinical trials and approval for new vaccines; and discuss ethical concerns related to vaccine use.

BIOL 5510 Ornithology (3 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).

BIOL 5520 Mammalogy (3 credits)
Morphology, ecology, behavior, classification, distribution, and evolution of mammals. Lecture and laboratory.

BIOL 5530 Ecology and Management of Large Mammals (3 credits)
Large mammals are socially and ecologically important components of the landscape and are intensively managed by wildlife agencies and private landowners. The primary focus of the course will be on life-histories, investigative techniques, and management of the major large mammals in Minnesota; white-tailed deer, black bear, wolves, moose, and elk. Biology, management, and research of large mammals from the western United States (i.e., mule deer, cougar, bison, pronghorn antelope, bighorn sheep, brown bear, etc.) will also be discussed. Students will be introduced to current issues concerning the political and social aspects of big game management.

BIOL 5534 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.

BIOL 5545 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.

BIOL 5580 Immunology (3 credits)
The study of disease fighting mechanisms of the innate and adaptive immune systems.

BIOL 5590 Cell Biology (3 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.

BIOL 5610 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.

BIOL 5620 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.

BIOL 5623 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.

BIOL 5630 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. Also GEOG 5630

BIOL 5680 Indigenous Ecology & Natural Resource Management (3 credits)
This course examines the similarities and differences in Indigenous and Western ecology knowledge and critically grapples with approaches to natural resource management and conservation of ecosystems. Typical studies in Western ecology place humans at the top of a hierarchy, as the ultimate apex predators. Doing so effectively removes humans from ecosystems and establishes a model of knowing and learning about the natural world that separates us from it. Indigenous practices in ecology, in contrast, foster nature-culture complementarities that place humans within ecosystems and uphold responsibility to the beings in it. This class provides students with opportunities to analyze how Western ecology knowledge is and has been used to perpetuate issues of inequities and power. Students will learn how to respectfully engage with topics in Indigenous research methodologies related to ecology. Focus is on Indigenous homelands of Turtle Island. This class includes lab simulations and field exercises. Prerequisite(s): None

BIOL 5710 Microbiology (4 credits)
Structure, classification, and physiology of bacteria and related microorganisms. Lecture and Laboratory.

BIOL 5720 Plant Form and Function (4 credits)
Structure, function, and development of vascular plants. Interrelation- ships between anatomical structures and physiological processes and how plants cope with environmental challenges. Lecture and laboratory.

BIOL 5723 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.

BIOL 5730 Plant Diversity (4 credits)
Classification, phylogeny, collection, field identification, and uses of wild plants. Lecture and laboratory.

BIOL 5780 Wildlife Management Techniques (5 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.

BIOL 5830 Aquatic Plants and Algae (4 credits)
Survey of the morphology, physiology, taxonomy, systematics, and ecology of algae and aquatic vascular plants. Lecture, laboratory, and field study.

BIOL 5840 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.

BIOL 5844 Wetlands Ecology Lab (1 credit)
Laboratory course to supplement BIOL/ENVR 5840 Wetlands Ecology. Intended to strengthen a basic understanding of the terminology, classification, ecology, values, and conservation of wetlands. Prerequisite or Corequisite: BIOL/ENVR 5840 or consent of instructor.

BIOL 5850 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.).

BIOL 6330 Current Topics in Biology (3 credits)
A critical analysis of scientific information distributed in social, popular, and traditional media.

BIOL 6338 Advanced Science Communication (3 credits)
This course is designed to prepare graduate students with practical analytical and communications skills for research and professional environments, whether that¿s a research lab, a classroom, a parks system, a fish hatchery, or anything in between. The goal is to help students develop skills that will facilitate achievement of their professional and intellectual goals.

BIOL 6340 Controversies in Biology (3 credits)
In this online graduate course, students will examine the responsible conduct and the social, economic, legal, and environmental impact of research across a wide range of the biological sciences, including the consequences of biological knowledge on humans, other animals, and the planet. Using a combination of readings, case studies, scholarly literature, and popular culture we will focus on practical decision-making frameworks in research, education, natural resources, and policy professions. Because controversial topics touch on deeply held personal beliefs and excite passionate disagreement, the course will also focus on communication, standards of evidence, and curiosity as tools to find common ground between differing positions. Topics will include genetic counseling and prenatal genetic testing, CRISPR and other gene editing and gene therapy technologies, cloning, biodiversity, hunting and fishing, invasive species, and the impact of climate change on organisms.

BIOL 6350 Computer Applications in Statistics (3 credits)
An examination of several computer-based packages for statistical analysis, focusing on selection of appropriate statistical procedures, processing by computer, and interpretation of results.

BIOL 6450 Trajectories in Biology: Past, Present, and Future (3 credits)
Trajectories in Biology is an expansive, wholistic view of how the history of biology laid the groundwork to the explosion of knowledge in the 19th and 20th century. As we grapple with technological, ethical, and biological possibilities we will imagine and explore how the vast field of biology might evolve in, and beyond, our lifetimes.

BIOL 6460 Teaching and Learning in College STEM (3 credits)
This course is designed to give students the theoretical and methodological grounding used in discipline-based education research. Discipline-based education research (DBER) focuses on the teaching and learning of STEM classes in college settings, and answers questions about how curriculum and pedagogy impact learners. In this course, students will be introduced to the historic and current trends in DBER, learn and apply DBER methodologies to analyze data, and translate DBER findings to effective pedagogical strategies.

BIOL 6880 Seminar (1 credit)
This course is designed to guide biology graduate students in completion of their M.S. in Biology/Environmental Studies. Each semester students will have specific requirements for completing the course, which will move them towards completion of their degree. (Also offered under ENVR 6880.)

BIOL 6890 Grants and Contracts (3 credits)
A practical investigation of grantsmanship with emphases on funding sources, creative writing, effective conduct of project and reporting results. Gives students first-hand practice in all phases of grantsmanship. Review and critique both qualitative and quantitative model proposals.

BIOL 6894 Advanced Graduate Project (3 credits)
Students learn laboratory or field techniques and carry out research under the supervision of a faculty advisor.

BIOL 6899 Capstone (3 credits)
In this final course, students work closely with the professor of record and 2 additional professionals to design and implement a capstone project. Capstone projects involve scholarly and/or research-based pursuit of knowledge and content development. Though projects may vary based on individual interests, each will reflect a significant level of scholarship and creativity and build upon existing knowledge to create new learning experiences and an enhances level of expertise. (Also offered under ENVR 6899.)

BIOL 6990 Thesis (1-4 credits)
Thesis

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

.

Programs

- Business Administration, M.B.A. *mba*

Business Administration, M.B.A. *mba*

Business Administration, M.B.A.

The Master of Business Administration (MBA) is the graduate degree offered by Bemidji State University's Business Administration Department. It is intended to provide graduates with advanced-level skills and understanding required to function effectively in the dynamic, technologically complex, and rapidly changing business environment of today. Successful graduates of the program will be able to apply analytic thinking methods to business scenarios using multidisciplinary concepts and tools, to communicate effectively in writing and orally in a variety of business environments, to bring required global perspectives to bear when seeking solutions to problems encountered in today's business environments, and to clearly define the role of corporate social responsibility in seeking these solutions.

Accelerated MBA Option (4 + 1 Program)
The accelerated MBA (4+1) program option enables undergraduate students of Accounting and Business Administration (major or minor) to be accepted, and potentially start the MBA Program while pursuing their bachelor's degree. Students admitted into the Accelerated MBA (4+1) Program may have a limited number of graduate level courses counted toward both the undergraduate and graduate degree taken during their senior year. Before enrolling in a course to be counted as both undergraduate and graduate credit (mixed credit), an undergraduate student must be accepted into the program and receive prior approval from the graduate program advisor/director and the respective college dean. A maximum of 12 credit hours may be taken as Mixed Credit. Students who are interested in the program apply for admission during the fall/spring of their junior undergraduate year, allowing the option of taking MBA courses during their senior year that can be counted as elective courses for the undergraduate degree. Full Time students take 3 to 4 classes per semester, while Part Time students take 1 to 2 classes per semester.

Regular MBA Option
This program option is for students who already have a bachelor's degree. The program can be completed either full-time or part-time. Full Time students take 3 to 4 classes per semester, while Part Time students take 1 to 2 classes per semester.

Program Learning Outcomes

Successful Graduates of Bemidji State University's MBA program will be able to:

- Recognize problems
- Integrate theory and practice for the purpose of strategic analysis
- Apply quantitative techniques and methods to analyze and solve real-world business problems
- Generate sustainable business options
- Analyze ethical responsibilities
- Produce effective written and oral business presentations and other forms of business communications
- Work effectively within a team

Program Admission Requirements for 4 + 1 program option: Accounting, Business Administration
Applicants for admission to the program will be evaluated on the following criteria:

1. An undergraduate grade point average with minimum of 80 credit hours that is at least 2.75 at Bemidji State
University OR a bachelor's degree from a regionally-accredited university or its equivalent with an undergraduate
grade point average that is at least 2.75. Lower GPA's may be accepted with approval by the BUAD Department

2. A letter of recommendation from a professional is optional.

3. A one to two page letter of intent that states why the applicant is seeking this degree with a resume

4. TOEFL or IELTS scores for international applicants

In addition, applicants to the program will need to fulfill demonstrated competencies with a C or better in the areas of accounting, economics, management, marketing, finance, and statistics. This competency can be demonstrated by the completion of the following undergraduate courses at Bemidji State University, their equivalents: ACCT 2101, ACCT 2102, MATH 1170, ECON 2000, ECON 2100, BUAD 2231, BUAD 3351, BUAD 3361, BUAD 3771.

Program Admission Requirements for Regular MBA
Applicants for admission to the program will be evaluated on the following criteria:

1. A bachelor's degree from a regionally-accredited university or its equivalent

2. An undergraduate grade point average that is at least 2.75, or its equivalent OR approval by BUAD Department

3. Professional licensure in the United States as a Certified Public Accountant,

Certified Financial Analyst, or Certified
Financial Planner. An earned terminal graduate degree (Ph.D., DBA, MD, JD, etc.) from an accredited institution.

4. A letter of recommendation from a professional is optional.

5. A one to two page letter of intent that states why the applicant is seeking this degree

6. TOEFL or IELTS scores for international applicants

In addition, applicants to the program will need to fulfill demonstrated competencies with a C or better in the areas of accounting, economics, management, marketing, finance, and statistics. This competency can be demonstrated by the completion of the following undergraduate courses at Bemidji State University, their equivalents: ACCT 2101, ACCT 2102, MATH 1170, ECON 2000, ECON 2100, BUAD 2231, BUAD 3351, BUAD 3361, BUAD 3771.

Required Credits: 30
Required GPA: 3.00

I. CORE COURSES

- MBA 5110 Business Analytics (3 credits)
- MBA 5120 Managerial Finance (3 credits)
- MBA 5130 Corporate Social Responsibility (3 credits)
- MBA 6100 Managerial Accounting (3 credits)
- MBA 6105 Organizational Behavior (3 credits)
- MBA 6125 Marketing Management (3 credits)
- MBA 6135 Information Systems Management (3 credits)

II. REQUIRED ELECTIVE COURSES

Complete the following courses:

- MBA 5140 Global Business (3 credits)
- MBA 6400 Managing Human Resources (3 credits)

III. CAPSTONE EXPERIENCE

Student pursuing the MBA degree must fulfill the degree's Capstone Experience Requirement. This is completed by successfully completing MBA 6145: Strategy and Management. Course includes all required program assessments for the MBA program. Assessment results allow the Business Administration Department to compare student outcomes with performance goals and implement subsequent curriculum improvements. This course is required of all Masters of Business Administation majors. Pre-requisites: REQUIRES INSTRUCTOR PERMISSION. This course must be taken during the student's last term of enrollment in the MBA program and graduation must follow at the end of that term per our IACBE accreditation requirements. Details are provided with the course description and course syllabus.

- MBA 6145 Strategy and Management (3 credits)

COMPETENCY REQUIREMENT

A working knowledge of applied statistics. This requirement may be satisfied by successfully completing MBA 5110, Business Analytics.

Master of Business Administration Courses

MBA 5100 Survey of Accounting and Finance Concepts (3 credits)
This course provides a survey of relevant financial accounting, managerial accounting, and managerial economic and finance concepts and processes. The course includes the application and use of financial statements in decision making, with the analysis of internal controls concepts, and evaluation of cash flows. Business ethics will be applied to cost concepts, cost systems, and budgetary planning and controls. Evaluation of relevant cost, opportunity cost, and sunk cost as related to short-run financial decisions. Evaluation of long-run financial decisions, which incorporate the concepts of the cost of capital and the time value of money. The application and evaluation of discounted cash flow methods. The various concepts and processes will be combined to create shareholder value.

MBA 5105 Quantitative Analysis for Business (3 credits)
This course reviews and develops the mathematical tools to get ready for the MBA courses. This course provides many applications of finite mathematics including linear mathematics, probability and statistics and the mathematics of finance to demonstrate how to solve quantitative problems and how to relate the basic mathematical tools to business decision making.

MBA 5110 Business Analytics (3 credits)
This course provides an understanding of the use of statistical and quantitative models to effectively manage and utilize information for the purpose of business decision making. Concepts covered include data analysis, probability theory, decision making models, statistical inference and estimation, hypothesis testing, analysis of variance, regression analysis, time series analysis, optimization models, and simulation. Competency in Microsoft Excel is required.

MBA 5120 Managerial Finance (3 credits)
This course covers the major concepts in corporate finance, including the analysis of financial statements, securities and options, project valuation and budgeting, corporate governance, and the financial management of global operations.

MBA 5130 Corporate Social Responsibility (3 credits)
This course focuses on the importance of business ethics, sustainability and stakeholder management in the current business environment. It illustrates how decision makers in business need to balance and protect the interests of various stakeholders, including investors, employees, the community, and the environment. Topics include the social, legal, political, and ethical responsibilities of a business to both external and internal stakeholder groups.

MBA 5140 Global Business (3 credits)
This course provides an overview of the global business environment, including geographic, economic and political perspectives, cultural factors, international trade and investment, technology transfer, human resource capabilities, global supply chains, and global strategies.

MBA 6100 Managerial Accounting (3 credits)
The course provides an in-depth coverage of relevant managerial accounting concepts and processes, including cost functions, cost-volume-profit analysis, planning and control systems, performance measurement and evaluation, and capital budgeting. It also provides a review of current managerial systems and issues.

MBA 6105 Organizational Behavior (3 credits)
This course examines individual and group behavior, the structure and dynamics of groups, and the concepts of leadership, all within the framework of business organizations.

MBA 6125 Marketing Management (3 credits)
This course covers the management of the marketing function within an organization. Topics covered include marketing strategy, product positioning, marketing analysis and planning in the areas of price, place and promotion, customer relationship management, and the role of marketing in strategic planning.

MBA 6135 Information Systems Management (3 credits)
This course focuses on the effective management of Information Technology (IT) to create competitive advantage and bring about organizational change. Topics include trends in technology and industry, the changing business process, using IT to add value to products and processes, managing applications and systems, and creating sustainable systems.

MBA 6145 Strategy and Management (3 credits)
This is a capstone class that is intended to provide coalescence for all the material that has been covered in preceding classes. Students will be required to demonstrate their ability to effectively synthesize the knowledge, theories, and skills that they have learned within the MBA program and to effectively apply them in management settings. Real world case studies will be used as vehicles for evaluation and students will be expected to work in groups in order to demonstrate effective teamwork. Case presentations will involve both written and oral communication, with oral communication being provided through video feeds. It involves several group cases as well as the submission of a final real-world case study, created under the supervision of the capstone instructor. The oral presentation of this final case study will be evaluated by your MBA Committee. This committee will include the candidate's academic advisor and the Capstone instructor. If your advisor and the Capstone instructor are one in the same, please ask another MBA faculty member to be on your MBA Committee. Full details of this case study will be provided in a separate document by the instructor. Prerequisites: This course must be taken during the student's last term of enrollment in the MBA program and graduation must follow at the end of that term per our IACBE accreditation requirements. Instructor Permission Required.

MBA 6400 Managing Human Resources (3 credits)
This course focuses on strategic management of human resources within organizations. It examines employment relations; theories of selecting, developing, and motivating human resources. Topics include job analysis, hiring, performance appraisal, training and development, compensation, and labor relations.

MBA 6600 Promotion Management (3 credits)
This course focuses on organizational promotion policies and practices that are used in the planning of a campaign. Topics include media selection, client-agency relationships, research and testing and the overall creation of a promotional campaign. Along with MBA 6605, this is one of the pair of courses that is required for the Marketing Concentration in the MBA.

MBA 6605 Services Marketing (3 credits)
This course examines the marketing of services in both the profit and not-for-profit sectors. The differences between the marketing of services versus physical goods are examined in the context of both internal and external marketing environments. Along with MBA 6600, this is one of the pair of courses that is required for the Marketing Concentration in the MBA.

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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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

Chemistry

.

Chemistry Courses

CHEM 5110 Lab Management and Safety (2 credits)
Laboratory management concepts, safety information concerning chemical substances.

CHEM 5140 Chemical Toxicology (3 credits)
Chemical principles in toxicology. Design of environmentally safer chemicals; quantitative analysis of the toxicity of various molecules.

CHEM 5210 Interpretation of Spectral Data (2 credits)
Systematic identification of chemical structures utilizing data from mass spectrometry, infrared spectroscopy, and nuclear magnetic resonance spectroscopy.

CHEM 5320 Special Topics in Organic Chemistry (1-3 credits)
Selected topics such as advanced synthesis, advanced reaction mechanisms, polymers, and natural products. May be repeated when topic is changed.

CHEM 5411 Biochemistry I (3 credits)
General biochemistry with an introduction to the chemical principles governing proteins and nucleic acids. Emphasis on the conformation, dynamics, and function of proteins.

CHEM 5412 Biochemistry II (3 credits)
General biochemistry with an emphasis on the chemical aspects of metabolism, biosynthesis, and the replication and expression of genes. Continuation of CHEM 5411.

CHEM 5420 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 5411.

CHEM 5471 Biochemistry Laboratory I (1 credit)
Laboratory techniques pertaining to biochemistry. Corequisite: CHEM 5411.

CHEM 5472 Biochemistry Lab II (1 credit)
Laboratory techniques pertaining to biochemistry. Corequisite: CHEM 5412.

CHEM 5476 Techniques in Biotechnology and Biochemistry (2 credits)
This course is one of two options for completion of the techniques core requirement for the BCMB major. The structure of the course consists of a combined lecture and lab. The course provides students with opportunities to learn advanced laboratory techniques in biotechnology and biochemistry. Prerequisite(s): CHEM 4471 or BCMB 3074 or BIOL 3074.

CHEM 5510 Instrumental Methods of Analysis (3 credits)
Theory and applications of instrumental methods of chemical analysis. Prerequisite: CHEM 5712.

CHEM 5520 Special Topics in Analytical Chemistry (1-3 credits)
Selected topics such as mass spectrometry, NMR, electrochemistry, chemical separations, and computerized instrument interfaces.

CHEM 5571 Instrumental Analysis I Laboratory (0 credit)
Experimental applications of instrumental methods of chemical analysis.

CHEM 5572 Instrumental Analysis Laboratory II (1 credit)
Experimental applications of instrumental methods of chemical analysis. Continuation of CHEM 5571. Prerequisite: CHEM 5571.

CHEM 5614 Medicinal Chemistry: Drug Design (3 credits)
This course focuses on drug design and development, as well as the absorption, distribution, metabolism and excretion of drug molecules. Organic chemistry principles vital to drug synthesis and case studies of clinically relevant drugs will be incorporated. Prerequisite(s): Degree in Biology, Chemistry, or related field.

CHEM 5615 Medicinal Chemistry: Drug Action (3 credits)
This course focuses on drug targets such as enzymes, receptors, and nucleic acids and the mechanisms by which pharmaceuticals alter the normal cellular activity. Common classes of pharmaceuticals (antibacterial, antiviral, anticancer, opioids, etc) will be explored. Progress in pharmaceutical development will be highlighted through the incorporation of current literature article and drugs undergoing clinical trials. Prerequisite(s): Degree in Biology, Chemistry, or related field.

CHEM 5711 Physical Chemistry I (3 credits)
Fundamental understanding of chemical and physical properties of atoms and molecules through quantum mechanical and classical approaches.

CHEM 5712 Physical Chemistry II (3 credits)
Fundamental understanding of chemical and physical properties of atoms and molecules through quantum mechanical and classical approaches. Prerequisite: CHEM 5711.

CHEM 5720 Special Topics in Physical Chemistry (1-3 credits)
Selected topics such as kinetics, thermodynamics, quantum chemistry, and molecular modeling.

CHEM 5771 Physical Chemistry Laboratory I (1 credit)
Physical chemistry laboratory applications. Corequisite: CHEM 5711.

CHEM 5772 Physical Chemistry Laboratory II (1 credit)
Physical chemistry laboratory applications. Continuation of 5771.

CHEM 5811 Intermediate Inorganic Chemistry (3 credits)
Theoretical approach to the principles of inorganic chemistry. Integration of theory and descriptive chemistry.

CHEM 5812 Advanced Inorganic Chemistry II (3 credits)
Continuation of the study of the theoretical approaches to the principles of inorganic chemistry.

CHEM 5820 Special Topics in Inorganic Chemistry (1-3 credits)
Selected topics such as organometallics, catalysis, bioinorganic chemistry, and materials chemistry.

CHEM 5871 Inorganic Chemistry Laboratory I (1 credit)
Laboratory oriented approach emphasizing techniques of preparative inorganic chemistry. Prerequisite or corequisite: CHEM 5711.

CHEM 5872 Inorganic Chemistry Laboratory II (1 credit)
Laboratory oriented approach emphasizing techniques of preparative inorganic chemistry. Continuation of CHEM 5871. Prerequisite or corequisite: CHEM 5871.

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

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Computer Science Courses

CS 5360 Software Engineering (3 credits)
A project-based course that focuses on software design issues. Prerequisite: Consent of instructor.

CS 5390 Social, Ethical, and Professional Issues in Computing (3 credits)
Features strategies for analyzing the social, ethical, and professional implications of issues and decisions that computing professionals might encounter. Those strategies are practiced and refined in a variety of areas of concern for computing. Prerequisites: At least one 5000- or 6000-level CS course.

CS 5507 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.

CS 5528 Data Structures and Algorithms (4 credits)
information storage structures, including priority queues, binary trees, generalized trees, and graphs. Particular emphasis will be placed on algorithm development techniques, including divide and conquer, greedy algorithms, and dynamic programming.

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

Economics

Economics Courses

ECON 5040 Environmental Economics (3 credits)
Examines environmental problems as consequences 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. (Also offered under ENVR 5040.)

ECON 5500 Forestry and Natural Resource Economics (3 credits)
This course is a companion to Environmental Economics, focused less on theory and more on application of the principles of Microeconomics (e.g., the Cost-Benefit Principle) to specific natural resources. We will apply the tools of microeconomics to economic and natural resource management decisions. Students will learn the basics of sustainability and how to apply it in a variety of settings with the goal of maintaining economic viability across time, often with multiple uses in mind, to gain an understanding of optimal management. For example, students will calculate timber harvest rotations, apply knowledge of various certification systems used to assess the sustainability of forest management practices and explore how these systems impact forestry practices and output availability, as well as how to sustainably maximize fish harvests. Prerequisite(s): None.

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

Education

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Programs

- Elementary and Middle Level Mathematics Education, M.S. *master*
- Mathematics Education, M.S. *master*
- Education, M.A.T. *mat*
- Music Education, M.M.E. *mme*
- Special Education, M.Sped *msped*
- Special Education *cert*

Elementary and Middle Level Mathematics Education, M.S. *master*

Required Credits: 34
Required GPA: 3.00

I. REQUIRED EDUCATION CORE

Complete the following courses:

- ED 6107 Advanced Educational Psychology (3 credits)
- MATH 6050 Assessment in the Mathematics Classroom (3 credits)
- MATH 6069 Mathematics and Culture (3 credits)

II. REQUIRED MATHEMATICS ELECTIVE COURSES

Complete the following courses:

- MATH 6061 Number Sense for Teachers (3 credits)
- MATH 6062 Number Theory for Teachers (3 credits)

Select at least 5 courses from the following:

- MATH 5065 Mathematical Foundations of Algebra (4 credits)
- MATH 5066 Geometry and Technology (4 credits)
- MATH 5067 Data, Probability, and Statistics (4 credits)
- MATH 6200 Structures of Discrete Mathematics (3 credits)
- MATH 6500 Geometry in the Classroom for Teachers (3 credits)
- MATH 6600 Probability for Teachers (3 credits)

III. REQUIRED PORTFOLIO AND RESEARCH

Note: MATH 6050 should be taken prior to the collection of evidence for the pedagogical portfolio.

Note: Consult with advisor before registering for MATH 6055.

Complete the following courses:

- MATH 6055 Pedagogical Portfolio and Action Research (2 credits)

Program Learning Outcomes | Elementary and Middle Level Mathematics Education, M.S.

1. Knowledge: Students will gain an in depth understanding of mathematics content appropriate for elementary and middle level teachers.

2. Pedagogy: Students will develop an understanding of the uses and limitations of a variety of instructional methodologies.

3. Curricular Design: Student will design lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

4. Research: Students will gain a understanding of the literature and use that understanding to answer research questions in a specialized area of mathematics education.

5. Professional Advancement: Students will apply what they have learned to improve the learning of their students and enhance the mathematics curriculum at their schools.

Mathematics Education, M.S. *master*

Required Credits: 32
Required GPA: 3.00

I. REQUIRED EDUCATION CORE

Complete the following courses:

- ED 6107 Advanced Educational Psychology (3 credits)
- MATH 6050 Assessment in the Mathematics Classroom (3 credits)
- MATH 6069 Mathematics and Culture (3 credits)

II. REQUIRED MATHEMATICS ELECTIVE COURSES

Select at least 12 credits from the following:

Note: Some courses listed have prerequisites not required in this program.

Other math content courses may be used with consent of advisor.

- MATH 5240 Number Theory (3 credits)
- MATH 5260 Mathematical Problem Solving (3 credits)
- MATH 5310 Linear Algebra (4 credits)
- MATH 5371 Modern Algebra (3 credits)
- MATH 5410 Introduction to Analysis (3 credits)
- MATH 5440 Introduction to Fractals & Chaos (3 credits)
- MATH 5560 Classical and Modern Geometry (3 credits)
- MATH 5710 Mathematical Modeling (3 credits)
- MATH 5720 Numerical Methods (3 credits)
- MATH 5760 Topics in Applied Mathematics (3 credits)

- MATH 5820 History of Mathematics (3 credits)
- MATH 6350 Advanced Abstract Algebra (3 credits)
- MATH 6550 Advanced Geometry (3 credits)
- STAT 5610 Time Series Analysis (3 credits)
- STAT 5631 Probability and Statistics I (4 credits)
- STAT 5632 Probability and Statistics II (3 credits)
- STAT 5660 Statistics for the Health Sciences (3 credits)

III. REQUIRED MATHEMATICS PEDAGOGY ELECTIVE COURSES

Select at least 9 credits from the following (or other pedagogy courses approved by an advisor):

- MATH 5065 Mathematical Foundations of Algebra (4 credits)
- MATH 5066 Geometry and Technology (4 credits)
- MATH 5067 Data, Probability, and Statistics (4 credits)
- MATH 6061 Number Sense for Teachers (3 credits)
- MATH 6062 Number Theory for Teachers (3 credits)
- MATH 6200 Structures of Discrete Mathematics (3 credits)
- MATH 6500 Geometry in the Classroom for Teachers (3 credits)
- MATH 6600 Probability for Teachers (3 credits)

IV. REQUIRED PORTFOLIO EVALUATION AND RESEARCH

Note: Consult with an advisor before registering for MATH 6055:

- MATH 6055 Pedagogical Portfolio and Action Research (2 credits)

COMPETENCY REQUIREMENT

Completion of MATH 6050, Assessment in the Mathematics Classroom, with a grade of 'B' or better, or the equivalent as approved by the department.

Program Learning Outcomes | Mathematics Education, M.S.

1. Knowledge: Students will gain an in depth understanding of mathematics content appropriate for secondary school teachers.

2. Pedagogy: Students will develop an understanding of the uses and limitations of a variety of instructional methodologies.

3. Curricular Design: Student will design lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

4. Research: Students will gain a understanding of the literature and use that understanding to answer research questions in a specialized area of mathematics education.

5. Professional Advancement: Students will apply what they have learned to improve the learning of their students and enhance the mathematics curriculum at their schools.

Education, M.A.T. *mat*

The Master of Arts in Teaching (MAT) program prepares students to obtain a master's degree and a Minnesota teaching license in a specialized content area. The MAT program is designed for students who have already earned a bachelor's degree and are now seeking a specialized 5-12, 9-12, or K-12 MN teacher license. The required coursework is offered online including both synchronous and asynchronous online components and some in-person components. Students will work collaboratively with an advisor to develop an individual program of study that includes meeting the MN licensure and also the MAT degree requirements. The MAT includes state required K-12 field hours and a final student teaching experience. The MAT consists of 30 total credits that include 19 credits in core courses, 3 credits of content electives, 6 credits of student teaching/field-based experience, and 2 credits of a final reflection course. Additional courses may be needed to meet licensure requirements. A content expert will review student transcripts to determine any gaps in coursework. For more information, contact the Program Coordinator or Department Chair.

Students will develop a 30-credit plan of study with their advisor that includes courses from the education core, one content licensure area, student teaching, and final reflection and exam cumulative course.

Program may require additional courses and credit hours to meet teacher licensure requirements for their licensure area. Additional course needs depend on previous courses and degree and meeting the MN licensure requirements. All students must have their previous transcripts reviewed by a content expert during the New Student Orientation before starting the Master of Teaching coursework.

Required Credits: 30
Required GPA: 3.00

I. Required Core

Complete the following courses:

- ED 5737 Content Area Reading (3 credits)
- ED 5799 The Professional Teacher (1 credit)
- ED 6101 Educational Foundations (3 credits)
- ED 6107 Advanced Educational Psychology (3 credits)
- ED 6108 Equitable and Inclusive Learning Communities (3 credits)
- ED 6140 Human Diversity in Education (3 credits)
- ED 6334 Curriculum and Instructional Design (3 credits)

II. Elective Options

Select one specialized methods course that reflects student's desired licensure. Take a methods course in one of the following teacher licensure areas: communication arts and literature, social studies 5-12, math 5-12, science 5-12 or 9-12, health 5-12, physical education k-12, or music k-12

III. Final Experience and Reflection

Final Student Teaching Experience - 6 credits
(varies depending on desired licensure)

- ED 5820 Student Teaching - Elementary (1-16 credits)
- ED 5830 Student Teaching - Secondary (1-12 credits)
- ED 5840 Student Teaching - Special Fields (1-12 credits)

Final Reflection Course
Includes information on effective teaching and learning, final cumulative project, and reflection. This final course is completed the final semester with student teaching.

- ED 6407 The Reflective Educator (2 credits)

Music Education, M.M.E. *mme*

This 33 credit Master of Music Education program prepares K-12 teachers in choral, instrumental, and general music specializations. All students will study general music methods and will select a choral or instrumental conducting track. This cohort based program can be completed over three years in month-long summer intensives. Studies focus on Kodály pedagogy, conducting, musicianship, and private music study, culminating in a capstone recital, project, or research.

Required Credits: 33
Required GPA: 3.00

I. Required Foundation Courses

A. Musicianship
Complete the following courses:

- MUS 5111 Graduate Musicianship I (1 credit)
- MUS 6112 Graduate Musicianship II (1 credit)
- MUS 6113 Graduate Musicianship III (1 credit)

B. Performance Studies
Complete the following course (take 3 semesters):

- MUS 5210 Graduate Music Ensemble (1 credit)

Complete the following course (take 2 semesters)
Enroll in Fall and Spring between Summers II and III

- MUS 6804 Graduate Lesson (1 credit)

C. Teaching Pedagogy
Complete the following courses:

- MUS 5301 Models of Music Learning I (2 credits)
- MUS 6302 Models of Music Learning II (2 credits)
- MUS 6303 Models of Music Learning III (2 credits)

D. Contemporary Topics
Complete the following courses:

- MUS 5401 Topics in Music Education I (2 credits)
- MUS 6402 Topics in Music Education II (2 credits)
- MUS 6403 Topics in Music Education III (2 credits)

E. Curriculum
Complete the following courses:

- MUS 5601 Music Materials, Literature, and Analysis I (2 credits)
- MUS 6602 Music Materials, Literature, and Analysis II (2 credits)
- MUS 6603 Music Materials, Literature, and Analysis III (2 credits)

II. Required Electives

Select one specialization:

1. Choral and General Music
MUS 5640 must take 3 semesters

- MUS 5640 Choral Conducting and Pedagogy (2 credits)

2. Instrumental and General Music
MUS 5740 must take 3 semesters

- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

III. Professional Application

Complete the following course:

- MUS 6853 Capstone (1 credit)

Music Education, MME (33 credits)
Sample Course Sequence / Suggested semester schedule

Summer I (10 credits)

- MUS 5111 Graduate Musicianship I (1 credit)
- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 5301 Models of Music Learning I (2 credits)
- MUS 5401 Topics in Music Education I (2 credits)
- MUS 5601 Music Materials, Literature, and Analysis I (2 credits)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Summer II (10 credits)

- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 6112 Graduate Musicianship II (1 credit)
- MUS 6302 Models of Music Learning II (2 credits)
- MUS 6402 Topics in Music Education II (2 credits)
- MUS 6602 Music Materials, Literature, and Analysis II (2 credits)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Fall Semester after Summer II (1 credit)

- MUS 6804 Graduate Lesson (1 credit)

Spring Semester after Summer II (1 credit)

- MUS 6804 Graduate Lesson (1 credit)

Summer III (11 credits)

- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 6113 Graduate Musicianship III (1 credit)
- MUS 6303 Models of Music Learning III (2 credits)
- MUS 6403 Topics in Music Education III (2 credits)
- MUS 6603 Music Materials, Literature, and Analysis III (2 credits)
- MUS 6853 Capstone (1 credit)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Special Education, M.Sped *msped*

The Master of Special Education program prepares individuals to work directly with students, families, and other professionals to provide individualized, evidence-based, and socially valid services for students with disabilities in school-based settings. Focus areas include Autism Spectrum Disorders, Emotional Behavior Disorders, Specific Learning Disabilities, and Cross-Categorical Special Education. Additional coursework, school-based practicum hours, and student teaching may be required to obtain a Minnesota teacher license in the areas of Emotional Behavioral Disorders, Specific Learning Disabilities, Autism Spectrum Disorders, or Academic and Behavioral Strategist.

Required Credits: 30
Required GPA: 3.00

I Special Education Required Courses

Complete the following courses:

- SPED 6610 Applying Special Education Research (3 credits)
- SPED 6800 Special Education Comprehensive Examination (0 credit)

II 6000 Level Content Courses

In consultation with your advisor, select 12 credits from the following:

- ED 6113 Culturally Responsive and Sustaining Pedagogy (3 credits)
- ED 6120 Critical Issues in Education (3 credits)
- SPED 6180 Graduate Student Teaching Seminar (2 credits)
- SPED 6530 Emotional Behavioral Disorders Methods (3 credits)
- SPED 6560 Autism Spectrum Disorders Methods (3 credits)
- SPED 6603 Math Difficulties: Assessment and Intervention (3 credits)
- SPED 6605 Advanced Due Process (3 credits)
- SPED 6608 Reading Difficulties: Assessment and Intervention (3 credits)
- SPED 6620 Advanced Specific Learning Disabilities Methods (3 credits)
- SPED 6630 Advanced Emotional Behavioral Disorders Methods (3 credits)
- SPED 6650 Practicum Strategies with Special Populations (2 credits)
- SPED 6660 Advanced Autism Spectrum Disorders Methods (3 credits)
- SPED 6680 Single Subject Research in Special Education (3 credits)
- SPED 6910 Directed Independent Study (3 credits)

Special Education Program Approval Required to take the following course (1-3 credits):

- SPED 6910 Directed Independent Study (3 credits)

III 5000 Level Electives

In consultation with your advisor, select 12 credits from the following:

- SPED 5400 Instructional Decision Making (3 credits)
- SPED 5450 ABS Educational Psychology (3 credits)
- SPED 5570 Autism Spectrum Disorder and Developmental Cognitive Disability Methods (3 credits)
- SPED 5600 Foundations of Special Education (3 credits)
- SPED 5620 Specific Learning Disabilities Methods (3 credits)
- SPED 5650 Collaboration: Practitioners, Professional Partnerships, and Parents (3 credits)
- SPED 5655 Due Process Foundations (3 credits)
- SPED 5715 Foundations of Instruction for Special Educators (3 credits)
- SPED 5750 Applied Behavior Analysis for Teachers (3 credits)

Master's Sequence

Complete the following:

Note: At the end of their program, all Master's students must take the following course and comprehensive examination.

- SPED 6610 Applying Special Education Research (3 credits)
- SPED 6800 Special Education Comprehensive Examination (0 credit)

Special Education *cert*

Required Credits: 12
Required GPA: 3.00

Admission requirement: Bachelor's degree in any area Note: This certificate does not provide a licensure through the Minnesota teacher licensing board, PELSB.

I REQUIRED COURSES

Complete the following courses:

- SPED 5600 Foundations of Special Education (3 credits)
- SPED 5650 Collaboration: Practitioners, Professional Partnerships, and Parents (3 credits)
- SPED 5655 Due Process Foundations (3 credits)
- SPED 5715 Foundations of Instruction for Special Educators (3 credits)

Education Courses

ED 5100 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 PPST, 2.50 GPA, and 30 credits, or completion of a baccalaureate degree in a licensure field and consent of department chair.

ED 5110 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. Prerequisite: 2.50 overall GPA; Corequisite: ED 5100.

ED 5140 Human Diversity and Educational Equity (3 credits)
This course equips future teachers with the knowledge and skills to create equitable learning environments. Through a critical examination of race, ethnicity, and culture, we explore the complex interplay of identity formation, intersectionality, and power dynamics in educational settings. Using culturally responsive and sustaining pedagogies will serve as a foundation for creating opportunities for students to learn about power and oppression and to empower students to challenge biases, discrimination, prejudices and structural inequalities. Learners will practice selecting and using diverse curriculum resources, collaborating with families, and creating supportive, responsive classrooms. Prerequisites or Corequisites: ED 5100 and 5110.

ED 5201 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.

ED 5202 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.

ED 5203 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. Prerequisite: ED 5202.

ED 5208 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(s): Admitted to the Professional Education Program or consent of instructor.

ED 5212 Curriculum Instruction using Response to Intervention (RTI) (3 credits)
This course is designed to provide students with opportunities to apply learning in an authentic setting. Students will demonstrate-through fieldwork, online discussion, and course assessments-their knowledge of curriculum using Response to Intervention (RTI) and how to supervise a reading program. Prerequisites: ED 5201 (Elementary Students) or ED 5737 (Secondary Students).

ED 5221 Elementary Math Methods (3 credits)
Objectives, materials and methods of teaching modern mathematics. Requires visits to elementary schools.

ED 5305 Literature Based Differentiated Instruction (3 credits)
This course emphasizes theory and practice in understanding, diagnosing and correcting problems in reading through differentiated literature-based instruction. Sims strategies as well instructional differentiated instruction will be introduced and implemented in a 20-hour clinical experience. (3 credits) Prerequisites: ED 5201 (Elementary Students) or ED 5737 (Secondary Students).

ED 5350 Principles and Strategies of Teaching (3 credits)
This course carefully examines the teaching and learning process using an equity lens. Planning culturally responsive, interdisciplinary instruction that incorporates real-world, project-based approaches utilizing community resources is explored. Anti-racist and culturally responsive pedagogies are practiced. Motivation for learning and student engagement are connected to instructional and assessment strategies and learning environments. Students develop resources and strategy banks for making equity

ED 5410 Secondary Science Methods (4 credits)
Introduces strategies and materials for teaching science grades 5-12. 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 5417 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 structures; content, instruction, and assessment at the middle school level; and community engagement and the middle school.

ED 5440 Mathematics Methods in the Secondary School (4 credits)
This course will familiarize students with NCTM Standards, lesson planning, Minnesota Frameworks and Standards, Graduation Rule, objectives, methods, and materials. 25 hour practicum required.

ED 5500 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 having special needs to developing an educational philosophy.

ED 5580 Teaching of Middle and Secondary School Social Studies (3 credits)
Objectives, activities, methods, and materials in teaching social studies in grades 5-12. A total of 25 hours of field experience in a middle or secondary social studies classroom is required. Prerequisite(s): ED 5110.

ED 5670 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 is geared toward teaching at either the kindergarten or prekindergarten levels. Requirements: Practicum at level of professional interest.

ED 5677 Relations and Management in Early Childhood Education (3 credits)
Study and develop 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. Practicum in prekindergarten or school settings is part of the class.

ED 5737 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.

ED 5740 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 5780 Inclusive Teaching and Classrooms (3 credits)
This course equips educators with the skills to create equitable and inclusive learning environments that support all students, including those with exceptional needs. Key topics include effective classroom management, differentiated instruction, inclusive assessments, collaboration with students, families and professionals, as well as legal considerations and mental health awareness. Prerequisite(s): ED 5100, ED 5110, ED 5140, and ED 5350.

ED 5790 Teaching PK-12 Multilingual Learners (3 credits)
This course is an intensive study to develop instructional competencies that support the literacy development of students from culturally and linguistically diverse backgrounds. Pedagogical approaches and methods, curriculum planning, assessment, differentiated instruction, materials adaptation, and collaborative teaching will be presented. The course will examine cross-disciplinary literacy instruction and approaches to develop students¿ reading, writing, speaking, and listening skills in all content areas. This course is designed for teacher candidates, experienced teachers, and those who want to develop their knowledge and understanding of fundamental principles, practices, and policies for working with multilingual leaners.

ED 5799 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 5100, ED 5110, ED 5140, ED 5350, and ED 5780.

ED 5811 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 5670 and ED 5677.

ED 5820 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 5100, ED 5110, ED 5140, ED 5350, ED 5780, and ED 5799; Corequisite: ED 5800.

ED 5830 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 5110 and ED 5799; Corequisite: ED 5800.

ED 5840 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 5100, ED 5110, ED 5140, ED 5350, ED 5780, and ED 5799; Corequisite: ED 5800.

ED 5860 Practicum: Special Fields (3 credits)
This is an 80-hour practicum course for students to demonstrate competency in teacher-student interactions, instructional delivery and design, and classroom organization and management in a classroom in the student¿s add-on licensure/endorsement focus. This course requires two observations by both the cooperating teacher and the university supervisor, one triad meeting, and submission of a recommendation from the university supervisor. Completed practicum hours must be submitted and approved. Prerequisite(s): Completion of initial MN Teaching License and co-enrollment in or completion of required endorsement courses.

ED 5917 DIS Tchg Assoc | (1-2 credits)
Directed Independent Study | Teaching Associate

ED 6100 Educational Research I (3 credits)
Critically informed educators begin with investigating their own practice. Students will explore principles of research design through analysis of qualitative, quantitative data from one's own setting. Students will then begin to develop a hypothesis of areas for improvement over the course of one's graduate degree. In this course students will develop efficacy in academic writing skills including formatting of documents in alignment with the Americans with Disabilities Act (ADA) and American Psychological Association (APA) citation practices. Introduction to the fundamental principles of educational research, the analysis and critique of quantitative, qualitative, and emerging research designs, data collection methods, and statistical approaches. This will provide the foundation for students completing their capstone project at the end of the program. This course should be taken early in a student's program of study to provide a sound basis for subsequent graduate-level coursework. Prerequisites: Admission to any BSU graduate program or consent of instructor.

ED 6101 Educational Foundations (3 credits)
This course is a critical study of the historical, social, philosophical, cultural, and political foundations of American Education. Students will reflect on their beliefs and values of teaching and the purpose of the education. Students will also examine components of effective instruction and explore current educational issues. This course requires K-12 field experience.

ED 6102 Making Education Data Meaningful (3 credits)
Teachers will learn how to analyze data gathered through classroom and institutional practices and accurately interpret these for various audiences and purposes. Teachers will demonstrate basic statistical concepts applied in the educational context and be able to recognize when data is being appropriately and effectively to inform instruction. An expansive repertoire of formative assessment practices for instructional purposes will be considered. Teachers will use data from student artifacts to design appropriate instructional remediation, extension, or adaptation for future curriculum iterations. Data disaggregated by race, gender, first language, and special education status will be used to consider current levels of instructional efficacy with the goal of equity and high achievement for all learners. Prerequisite(s): ED 6100.

ED 6107 Advanced Educational Psychology (3 credits)
This course investigates the neurological, psychological, and socio-cultural elements of human development as these relate to teacher practices. The course examines the teaching and learning process: teaching with emphasis on planning effective instruction, management, and assessment. It also explores effective ways to respond to student behaviors and learning needs from a trauma-based perspective. This course includes K-12 Teacher Licensure Standards of Effective Practice.

ED 6108 Equitable and Inclusive Learning Communities (3 credits)
Examination of how to create equitable, inclusive, empathic, and humanistic K-12 learning environments. Students will explore classroom management practices, inclusive teaching strategies, and equitable assessment practices. The course provides guidance to preservice teachers seeking effective adaptations, accommodations, and modifications to support all students¿ academic and social success in their classrooms. This course also reviews info on specific disabilities; and identifies equitable strategies to meet the needs of exceptional learners. Prerequisite(s): ED 6107.

ED 6113 Culturally Responsive and Sustaining Pedagogy (3 credits)
Students will build on existing experiences in education to review and analyze current curriculum and standards. They will develop curriculum and/or adapt existing curriculum rooted in sound learning theory. brain research, is culturally responsive and sustainable, and inclusive to all learners. Students will develop the pedagogical skills enabling them to facilitate student-centered instruction emphasizing authentic inquiry. Prerequisite(s): ED 6102.

ED 6115 Psychology of Learning (3 credits)
A comprehensive study of the process of learning as it relates to behavior, cognition/intelligence, life-span development, motivation, and instructional practices. For practicing teachers in various educational settings, pre-K through post-secondary.

ED 6117 Critical and Creative Thinking (3 credits)
Analysis of learner capacities that are prerequisites for intellectual growth, including the ability to take multiple perspectives, be creative and take risks, and adopt an experimental and problem-solving orientation. Through an understanding of developmental and learning theories, accomplished teachers critically examine their teaching practices, seek to expand their repertoire, deepen their knowledge, and adapt their teaching to new ideas.

ED 6120 Critical Issues in Education (3 credits)
Analyzes issues confronting American education. Students will first explore enduring critical issues in education and then participate in an emergent curriculum model as they conduct specific and detailed study is given to selected issues of their choice culminating completion of a literature review on that topic. Prerequisite(s): ED 6113.

ED 6140 Human Diversity in Education (3 credits)
This course explores anti-bias and culturally responsive teaching. It examines social, political, and cultural issues that contribute to inequities in education. It includes a study of the causes and psychological dynamics of racism, sexism and other forms of human oppression and the effects these have on learning spaces. Throughout the course, students will consider their own positionality and what that means for their teaching practice. Focus will be on examining and implementing practices that support diversity, equity, and inclusion.

ED 6150 History of American Education (2 credits)
Study of the development of public education in the United States with attention to the European background as it has influenced the expansion of education facilities in the United States, Canada, and Latin America.

ED 6230 Curriculum and Instruction in Developmental Reading in Elementary School (2 credits)
The skills, methods and materials basic to the teaching of reading at the elementary level are studied.

ED 6232 Children's Literature in the Classroom (2 credits)
For in-service elementary and middle-level teachers. Expands teachers' background in the field of children's literature. Emphasis on methods and techniques to integrate children's literature into the language arts program as well as the use of literature across disciplines in school curriculums. Current research, relevant Internet resources, and recent publications in children's literature. Prerequisite: Undergraduate teaching degree or consent of instructor. Offered through Extended Learning.

ED 6238 Administration and Supervision of the Reading Program in the Field (3 credits)
This course is designed to provide students with opportunities to apply learning about reading best practices in an authentic setting. Students will demonstrate¿through field work, online discussion, and course assessments¿their knowledge of reading assessment and evaluation, state and federal reading legislation, leadership and coaching approaches, current research on best practice in reading instruction, strategies for working effectively with parents and community, and ability to plan reflectively for high-quality reading instruction. Prerequisites: ED 5201, ED 5740.

ED 6240 Topics in Mathematics Education (2 credits)
This course explores topics in mathematics education. Topics covered may include instructional, curricular, or programmatic practices. It is repeatable when the topic differs.

ED 6250 Topics in Social Studies Education (2 credits)
This course explores topics in social studies education. Topics covered may include instructional, curricular, or programmatic practices. It is repeatable when the topic differs.

ED 6334 Curriculum and Instructional Design (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. Prerequisite(s): ED 6101 and ED 6107.

ED 6336 Instructional Design (3 credits)
Examines a range of effective instructional techniques for elementary, middle-level, secondary, and post-secondary teachers. Reviews instructional design models that focus on selecting content knowledge, transforming content knowledge into instructional standards, selecting appropriate teaching strategies and media, managing the classroom environment, assessing learning, and reflecting on the effectiveness of instructional decisions.

ED 6407 The Reflective Educator (2 credits)
This is a culminating reflection course that includes a final performance assessment and/or oral exam. Students will explore critical aspects of teaching and examine what it means to be a reflective teacher who will continue to learn and develop with experience. This course is taken during the final term of the Master of Teaching program. Prerequisite(s): ED 6334 and ED 6108.

ED 6446 Distance Education: History and Development (3 credits)
Students learn about trends, issues, and theories in the field, as well as designing for distance delivery with different types of methods, media, and delivery tools. The course is offered only online. Students will participate in online discussion, including an exploration of their own experiences as distance learners. Other goals are individually defined and based on the needs and interests of students taking the course.

ED 6447 Seminar in Online Teaching (2 credits)
Specifically for in-service P-12 and post-secondary teachers seeking advanced preparation in online teaching. Shaped by participants in terms of critical needs, specific content areas and specialties, or changes in state and federal policies. Every effort is made to include expert guest discussants from the Minnesota Department of Education, other universities, teachers' unions, and other relevant leaders in online education.

ED 6750 Educational Research II (3 credits)
Students are guided to developing meaningful, authentic, projects, often including action research projects that will improve their own practice in the field and contribute new ideas to the profession. Students will complete the proposal for their capstone project. The instructor will facilitate the student's completion of the capstone proposal process, resulting in advisor/committee chair approval capstone proposal and requisite BSU graduate school office paperwork. Students proposing an action research capstone will most likely complete data collection prior to enrolling in ED 6850 where they will analyze the data and present their results. Prerequisite(s): ED 6100 and ED 6120.

ED 6850 Capstone (3 credits)
In this final course in the BSU Education Department's MAT and M SPED degree programs, students complete their final project and present their findings. Students work closely with the course instructor and their advisor to complete the last requirements of their degree. Prerequisite(s): ED 6100, ED 6120, and ED 6750.

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
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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

Special Education Courses

SPED 5105 Professional Practice in Special Education I (1 credit)
This one-credit course is designed to augment the clinical experiences required throughout the Special Education Licensure Program and facilitate interaction with teacher coaches/mentors. This course is taken during the candidate's first semester in the program. Signature Assessment 1 is completed in this course. Prerequisites: Current teacher license or completion of a teaching degree or completion of ED 5100, ED 5110, enrolled in or completed ED 5350 or consent of instructor. Corequisite: SPED 5600.

SPED 5400 Instructional Decision Making (3 credits)
This course is designed to provide an overview of and practical application with curriculum-based procedures for assessment and evaluation. The emphasis will be on classroom-based measures that can be used to make educational decisions to plan instruction for students¿particularly those who are experiencing academic difficulty. Prerequisite(s): SPED 5600

SPED 5450 ABS Educational Psychology (3 credits)
A study of the teaching and learning process with a focus on students with special education needs and how to ensure effective planning 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 attributed to the students' unique needs.

SPED 5566 Survey of Mild Disabilities (3 credits)
This is an introductory level survey course that studies the strategies, methods and materials for educational programming necessary when teaching students with mild disabilities. This course focuses on history, etiology, characteristics, and instructional needs for individuals with mild disabilities including Specific Learning Disabilities and Emotional Behavior Disorders. This course addresses learner traits relevant to specific intervention methods and instructional strategies across content areas as well as the roles of educators in inclusive settings to successfully collaborate to meet the needs of individuals with exceptionalities. Prerequisite(s): SPED 5600, SPED 5650.

SPED 5570 Autism Spectrum Disorder and Developmental Cognitive Disability Methods (3 credits)
This is an introductory level course that studies the strategies, methods and materials for educational programming necessary when teaching students with mild disabilities. This course focuses on history, etiology, characteristics, and instructional needs for individuals with mild disabilities including Autism Spectrum Disorder and Developmental Cognitive Disability. This course addresses learner traits relevant to specific intervention methods and instructional strategies across content areas as well as the roles of educators in inclusive settings to successfully collaborate to meet the needs of individuals with exceptionalities. Prerequisite(s) SPED 5600.

SPED 5600 Foundations of Special Education (3 credits)
This course provides future educators with a foundational understanding of special education. Students will learn about the history of special education and disabilities in American schools, characteristics of students with disabilities, special education processes, and evidence-based practices. Prerequisite(s): none

SPED 5620 Specific Learning Disabilities Methods (3 credits)
This course prepares students to apply the historical foundations, current educational definitions, federal and Minnesota eligibility criteria for services, etiology, comorbidity, impacts of information processing deficits, and social or emotional aspects of specific learning disabilities to their work with students with specific learning disabilities. Students will apply, analyze, and evaluate evidence-based practices to improve outcomes for students with specific learning disabilities. Prerequisite(s): SPED 5600

SPED 5650 Collaboration: Practitioners, Professional Partnerships, and Parents (3 credits)
This course prepares special educators for effective collaboration with practitioners, professionals, and parents to improve academic, behavioral, and post-secondary outcomes for students with disabilities in school, home, and community settings. Prerequisite(s): none.

SPED 5655 Due Process Foundations (3 credits)
This course provides students with practical knowledge of due process procedures for special education teachers including managing referrals, interpreting evaluations, developing IEP¿s, utilizing special education documents, following timelines, and conducting IEP meetings to improve outcomes for students with disabilities in schools. Prerequisite(s): SPED 5600

SPED 5665 Positive Behavior Interventions and Supports (3 credits)
This course prepares educators to apply the principles of PBIS to improve student outcomes through the use of evidence-based practices including functional assessment, social skills instruction, and classroom management techniques.

SPED 5715 Foundations of Instruction for Special Educators (3 credits)
This course prepares students to apply the concepts of learning theory, evidence-based instructional design, and curricular interventions and techniques for the inclusive classroom. Prerequisite(s): SPED 5600.

SPED 5750 Applied Behavior Analysis for Teachers (3 credits)
This course is designed to teach pre-service special education teachers the basics of Applied Behavior Analysis as well as classroom management skills that foster positive interactions among students in pre-K through 12th grade. Students will learn to conduct behavioral assessments, and report results through professional writing. Prerequisite(s): SPED 5600

SPED 5840 Student Teaching - Special Education (6 credits)
Full-time teaching with guidance and supervision by university supervisors and assigned school personnel. Graded Satisfactory/Unsatisfactory only. Prerequisites: Completion of special education, foundations, core, and methods courses.

SPED 5917 DIS Tchg Assoc | (1-2 credits)
Directed Independent Study | Teaching Associate

SPED 6170 Student Teaching Workshop (1 credit)
The Graduate Student Teaching Workshop (8-week) is one of the final courses in the SPED licensure program and is taken 1 semester before student teaching. This course will outline the major tasks and responsibilities of student teaching as well as discuss the agencies, laws, and resources candidates will need prior to and during student teaching.

SPED 6180 Graduate Student Teaching Seminar (2 credits)
This course, taken concurrently with student teaching, supports students as they progress through student teaching and completion of the edTPA. The course discusses application of content and skills learned in coursework as well as current issues and trends in special education. Additionally, students will identify and examine resources used in student teaching and into their careers as special educators.

SPED 6530 Emotional Behavioral Disorders Methods (3 credits)
The course is an introduction to the characteristics and assessment of students with emotional and behavioral disorders within the context of school, family, and community settings. Prerequisite(s): SPED 5600

SPED 6560 Autism Spectrum Disorders Methods (3 credits)
This course prepares students to apply the historical foundations, current educational definitions, eligibility criteria, etiology, comorbidity, and social or emotional characteristics of students with Autism Spectrum Disorders. Students will apply, analyze, and evaluate evidence-based practices to improve outcomes for students with Autism. Prerequisite(s): SPED 5600

SPED 6603 Math Difficulties: Assessment and Intervention (3 credits)
This course prepares special education teachers to address student needs related to mathematics through the development, implementation, and assessment of evidence-based math interventions. Prerequisite(s): SPED 5600.

SPED 6605 Advanced Due Process (3 credits)
This course prepares special educators to responsibly conduct special education evaluations for the purposes of developing sound and legally correct IEPs. Prerequisite(s): SPED 5600 and SPED 5655.

SPED 6608 Reading Difficulties: Assessment and Intervention (3 credits)
This course prepares special education teachers to assess the needs of and develop evidence-based interventions for students who exhibit reading deficits. Prerequisite(s): SPED 5600.

SPED 6610 Applying Special Education Research (3 credits)
This course provides special education practitioners with a practical understanding of special education research including the basics of experimental, single-case, and qualitative research designs. Additionally, students will learn how to identify, access, and utilize quality evidence-based practices using both research and practitioner-oriented peer reviewed publications from the field of special education. Prerequisite(s): Prerequisite(s): Admission to the MSPED program

SPED 6620 Advanced Specific Learning Disabilities Methods (3 credits)
This course prepares special education teachers to plan, identify, design, implement, and evaluate evidence-based specialized instruction and intervention techniques to improve outcomes for students with Specific Learning Disabilities. Prerequisite(s): SPED 5600, SPED 5620.

SPED 6630 Advanced Emotional Behavioral Disorders Methods (3 credits)
This course prepares special education teachers to plan, identify, design, implement, and evaluate evidence-based specialized instruction and intervention techniques to improve outcomes for students with Emotional and Behavioral Disorders. Prerequisite(s): SPED 5600, SPED 6530.

SPED 6640 Advanced Strategies with Special Populations (3 credits)
This course uses scientifically based research strategies to identify the characteristics of teacher-student interactions and design curricular interventions that address socio-emotional interactions, classroom organization and management, as well as instructional support to accommodate diverse learners in reading, writing, mathematics, and social skills. This course requires a 20-hour approved field experience that includes developing an individual application project in collaboration with a supervising teacher licensed in the area the student is seeking licensure in. Prerequisite(s): Initial Special Education license already completed or instructor consent.

SPED 6650 Practicum Strategies with Special Populations (2 credits)
This is a 2-credit graduate practicum course where students, using scientifically based research strategies, learn to identify the characteristics of teacher-student interactions and design curricular interventions that address socio-emotional interactions, classroom organization and management, as well as instructional support to accommodate diverse learners in reading, writing, mathematics, and social skills... This course requires an 80-hour practicum approved that includes developing an individual focus project. This course is for Conventional and Add-on Licensure students (those who take 3 classes for an ASD, EBD, or SLD license after they have completed the requirements for their first license). Prerequisite(s): Completion of initial SPED license: SPED 3/5600, 3/5650, 3/5655, 4/5715,6605,6608,6603

SPED 6660 Advanced Autism Spectrum Disorders Methods (3 credits)
This course prepares special education teachers to plan, identify, design, implement, and evaluate evidence-based specialized instruction and intervention techniques to improve outcomes for students with Autism Spectrum Disorders. Prerequisite(s): SPED 5600 and SPED 6560.

SPED 6680 Single Subject Research in Special Education (3 credits)
Study of single subject research analysis as used in special education. Includes strategic issues for conducting single subject research design, methodology, and interpretation of data. Students complete the proposal for the Master in Special Education project. Prerequisites: SPED 6610 or consent of instructor.

SPED 6800 Special Education Comprehensive Examination (0 credit)
This course houses the comprehensive exam as the final piece for our Master of Special Education degree. Students will be given 4 questions from the 25 identified. They will be given 28 days to write on the topics and will be evaluated based on the rubric.

SPED 6910 Directed Independent Study (3 credits)
DIS

SPED 6920 Directed Group Study (3 credits)
Arranged group study

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

English

.

Programs

- English, M.A. *master*
- English, M.S. *master*

English, M.A. *master*

Required Credits: 30
Required GPA: 3.00

I. Required Core

Complete the following courses:

- ENGL 6110 Research and Bibliography (3 credits)
- ENGL 6277 Problems of Literary Criticism (3 credits)
- ENGL 6337 Language and Linguistics Topics (3 credits)

Select one course in American Literature:

- ENGL 6317 Seminar in American Literature (3 credits)
- ENGL 6680 Interdisciplinary Seminar (3 credits)

Select one course in English Literature:

- ENGL 6260 Shakespeare (3 credits)
- ENGL 6318 Seminar in British Literature (3 credits)
- ENGL 6680 Interdisciplinary Seminar (3 credits)

II. Required Electives in English

Select with consent of advisor sufficient courses to bring credit total, including thesis,
to at least 30. Note that 50% of graduate programs must be 6000-level courses, excluding thesis and research paper credits.

Note: Graduate Assistants with teaching assignments are required to take
ENGL 6328 Seminar in Composition Theory (3 credits) as one of their Required
Electives in English.

- ENGL5***
- ENGL6***

III. Research Paper or Thesis

A. Research Paper or Thesis
An extensive and detailed analysis of an approved topic in the area of English literature, American literature, literary criticism, composition, rhetoric, or other appropriate subject presented in a form suitable for publication. The subject of the thesis must be approved by the thesis advisor and the English graduate committee before the student may begin research.

B. The thesis may be a creative project requiring the same approvals as a scholarly thesis, outlined above in

- ENGL 6990 Thesis (3 credits)

WRITTEN EXAMINATION
All major programs require satisfactory completion of a final written examination which
needs to be successfully completed prior to scheduling the oral examination. Please
consult with your academic advisor for requirements specific to your area of study.

Program Learning Outcomes | English, M.A.

1. Critical Thinking, Reading, and Writing: Students will demonstrate skills in criticial thinking, reading, and writing at the graduate level.

2. Literary Conventions and Criticism: Students will demonstrate understanding of literary conventions and criticism at the graduate level.

3. Research; Identify the research tools and rhetorical methods necessary for literary criticism at the graduate level and beyond.

4. Texts and Contexts: Students will understand diverse texts in diverse contexts at the graduate level.

English, M.S. *master*

Required Credits: 32
Required GPA: 3.00

I. Professional Education Core Requirements

Complete the following courses:

- ED 6100 Educational Research I (3 credits)
- ED 6107 Advanced Educational Psychology (3 credits)
  or ED 6108 Equitable and Inclusive Learning Communities (3 credits)

II. Required English Core

Complete the following courses:

- ENGL 6110 Research and Bibliography (3 credits)
- ENGL 6277 Problems of Literary Criticism (3 credits)
- ENGL 6337 Language and Linguistics Topics (3 credits)

Select one course in American Literature:

- ENGL 6317 Seminar in American Literature (3 credits)
- ENGL 6680 Interdisciplinary Seminar (3 credits)

Select one course in English Literature:

- ENGL 6260 Shakespeare (3 credits)
- ENGL 6318 Seminar in British Literature (3 credits)
- ENGL 6680 Interdisciplinary Seminar (3 credits)

III. Required Electives in English

Select with consent of advisor sufficient courses,
including thesis or research paper, to bring credit
total for degree to at least 32.

Note: Graduate Assistants with teaching assignments
are required to take ENGL 6328 Seminar in Composition Theory (3 credits) as one
of their Required Electives

IV. Research Paper or Thesis

Note: The subject of the thesis must be
approved by the thesis advisor and the graduate
committee before the student may begin research.

- ENGL 6980 Research (3 credits)
- ENGL 6990 Thesis (3 credits)

WRITTEN EXAMINATION
All major programs require satisfactory completion of a final written examination which
needs to be successfully completed prior to scheduling the oral examination. Please
consult with your academic advisor for requirements specific to your area of study.

Program Learning Outcomes | English, M.S.

1. Critical Thinking, Reading, and Writing: Students will demonstrate skills in criticial thinking, reading, and writing at the graduate level.

2. Literary Conventions and Criticism: Students will demonstrate understanding of literary conventions and criticism at the graduate level.

3. Research; Identify the research tools and rhetorical methods necessary for literary criticism at the graduate level and beyond.

4. Texts and Contexts: Students will understand diverse texts in diverse contexts at the graduate level.

English Courses

ENGL 5115 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.

ENGL 5116 Writing Fiction II (3 credits)
A workshop course designed to offer the student further practice, analysis, and theoretical study in the writing of original fiction. May be repeated one time.

ENGL 5125 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.

ENGL 5126 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.

ENGL 5135 Scriptwriting/Playwriting I (3 credits)
Introduction to the study of the form and style of scriptwriting and playwriting, with practice, study, and writing in a workshop format.

ENGL 5145 Writing Creative Nonfiction I (3 credits)
Introduction to the study of the form and style of creative nonfiction, with practice in a workshop format.

ENGL 5146 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.

ENGL 5155 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 5157 Topics in Writing, Editing and Publishing (3 credits)
Advanced study of and practice in a literary genre or subgenre, editing or publishing. May be retaken multiple times with different topic subtitles.

ENGL 5177 Rhetoric of Social Media (3 credits)
This course, which is theory-grounded, gives students the opportunity to explore new forms of online publishing, study, and written expression, including social media. Computer-intensive.

ENGL 5179 Elements of Digital Rhetoric (3 credits)
Introduction to the principles of applied rhetoric integrated with continued digital writing experience. Also introduces fundamentals of hypertext. Students investigate email, Web page and site design, social media, wikis, and weblogs, and create and analyze online texts and exchanges. Computer-intensive.

ENGL 5180 Digital Writing and Rhetoric Capstone Project (3 credits)
A teacher- and student-designed capstone project building on learning in prerequisite courses in the Digital Writing minor. In consultation with a qualified faculty member, students design and complete a capstone project in digital rhetoric or digital writing that is professional and publishable in nature and quality, or that can serve as documentary evidence appropriate to the field.

ENGL 5183 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 5420 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.

ENGL 5429 Shakespeare for Teachers (3 credits)
A study of Shakespeare's plays and poems in contexts appropriate for high school and community college teachers.

ENGL 5510 Writing Center Practicum (1-3 credits)
In-class instruction on writing center-specific theoretical and practical applications and supervised field experience by consulting in the Writing Resource Center. Prerequisite(s): consent of instructor.

ENGL 5520 Writing for the Secondary School Teacher (3 credits)
A study of the multi-modal composition and presentation; designed to provide theory and applications for teaching English language arts in secondary schools. Includes research component in composition pedagogy.

ENGL 5540 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 5550 Methods of Teaching English and Communication (4 credits)
This course explores and analyzes secondary English Language Arts teaching methods. Key themes include inclusivity in education, teaching diverse students, social justice literacies, and developing units and lesson plans that align with current research. Requires 25 hours of field experience and case study based on field experience that applies ELA education methods, theory, and research.

ENGL 5709 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.

ENGL 5860 Internship in Writing, Editing or Publishing (3 credits)
Introduction to the practices of creative and/or professional writing, editing, and/or publishing. Students work on specific projects or internships to gain experience in editing, writing, submitting work for publication, gain an understanding of standard practices and issues in creative and professional writing markets and gain knowledge of careers in creative and professional editing and publishing. Course may be taken as an arranged course for university and off-campus internships.

ENGL 6110 Research and Bibliography (3 credits)
Introduction to graduate-level research and methodologies of literary criticism and bibliography.

ENGL 6260 Shakespeare (3 credits)
A study of selected works of Shakespeare, with emphasis on a particular genre, such as tragedy.

ENGL 6265 Advanced Studies in Shakespeare (3 credits)
Graduate study of Shakespeare's plays, applying critical, historical, and pedagogical readings to write analytically about texts, contexts, and performances. Not for students enrolled in the on-campus MA in English program.

ENGL 6270 Seminar In Literature (3 credits)
Specialized study in comparative literature.

ENGL 6277 Problems of Literary Criticism (3 credits)
A descriptive course in criticism which attempts to get at the basic problem of methodology and make applications of the various critical literary problems. Considers aspects of the philosophic inquiry in criticism as well as methods of analysis and their limitations.

ENGL 6317 Seminar in American Literature (3 credits)
Specialized study in American Literature

ENGL 6318 Seminar in British Literature (3 credits)
Dividing our one-size fits all 6270 Seminar in Literature (American, British or comparative literature) course into three stand-alone courses is intended to reduce confusion for students and on their transcripts by differentiating whether the course focuses on American, British, or other literatures.

ENGL 6328 Seminar in Composition Theory (3 credits)
A seminar in contemporary rhetorical and composition theory and practice from 1863 to the present, including the study of current theory and practice in writing in digital media.

ENGL 6337 Language and Linguistics Topics (3 credits)
Introduction to elementary linguistics and basic linguistic theory which builds on this introduction to study the development of the English language for 1500 years, focusing on lexis, semantics, morphology and phonology.

ENGL 6680 Interdisciplinary Seminar (3 credits)
An interdisciplinary study of specifically chosen literature and cultural relationships of England and America.

ENGL 6700 Seminar in Rhetorical Theory (3 credits)
A study of trends in composition theory with special emphasis on academic writing. This course is designed primarily to prepare students to teach university level composition courses.

ENGL 6980 Research (3 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

ENGL 6990 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.

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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

Environmental Studies

Center for Sustainability Studies

The Center for Sustainability Studies (CSS) provides a focus for (1) applied environmental work by faculty and students and (2) the interdisciplinary Environmental Studies program. Applied environmental research in the Center focuses on global and regional environmental problems. CSS has the instrumentation and faculty specialization to work on a variety of natural science and sustainability-oriented projects. Graduate students in CSS have both thesis and non-thesis options in pursuing a masters degree. The thesis pathway is geared towards students who want to demonstrate empirical skills through development and completion of a master's thesis. Students who have completed the thesis track have gone on to Ph.D. programs or employment in industry, government, or academia. The non-thesis track is geared towards students wanting to pursue a professional path and they work on projects in conjunction between the student, faculty, and community partners. To identify which pathway is right for you, we recommend that prospective students contact a faculty member who works in an area of interest to you.

Programs

- Environmental Studies, M.S. *master*
- Outdoor Leadership *cert*

Environmental Studies, M.S. *master*

The Master of Science program accommodates individual student needs and backgrounds and provides students with several curricular and research opportunities. The interdisciplinary curriculum focuses on the natural and social sciences as they relate to environmental problem solving. Each student should contact a faculty member in the Center for Sustainability Studies to identify potential projects. Once accepted into the program students will complete course work requirements and either a thesis (for the thesis option) or internship (for the non-thesis option).

Environmental Studies, MS

Required Credits: 30
Required GPA: 3.0

Pathway 1: Thesis Option

I. Required Core
Complete the following courses:

- BIOL 6338 Advanced Science Communication (3 credits)
- ENVR 6410 Environmental Data Science and Modeling (3 credits)
  or BIOL 6350 Computer Applications in Statistics (3 credits)
- ENVR 6790 Environmental Project Management (3 credits)
  or BIOL 6890 Grants and Contracts (3 credits)

Must be taken 3 times over 3 semesters for 3 credits:

- BIOL 6880 Seminar (1 credit)
  or ENVR 6880 Seminar (1 credit)

II. Required Elective Courses
Select, with the consent of thesis advisor, at least 12 credits of graduate level coursework.

III. Required Research Thesis
Complete the following course for 6 credits:

- ENVR 6990 Thesis (1-6 credits)

Pathway 2: Non-Thesis Option

I. REQUIRED CORE
Complete the following courses:

- ENVR 6250 Advanced Environmental Studies (3 credits)
  or BIOL 6460 Teaching and Learning in College STEM (3 credits)
- ENVR 6410 Environmental Data Science and Modeling (3 credits)
  or BIOL 6350 Computer Applications in Statistics (3 credits)
- ENVR 6790 Environmental Project Management (3 credits)
  or BIOL 6890 Grants and Contracts (3 credits)
- ENVR 6970 Internship (3 credits)
  or BIOL 6338 Advanced Science Communication (3 credits)
- BIOL 6880 Seminar (1 credit)
  or ENVR 6880 Seminar (1 credit)

II. REQUIRED ELECTIVES

Select at least 12 credits of graduate level coursework.

III. REQUIRED CAPSTONE
Complete the following:

- BIOL 6899 Capstone (3 credits)
  or ENVR 6899 Capstone (3 credits)

Outdoor Leadership *cert*

Required Credits: 14
Required GPA: 3.00

I REQUIRED COURSES

Complete the following courses:

- ENVR 5150 Outdoor Field Skills (2 credits)
- ENVR 5710 Indigenous Environmental Knowledge: Global Perspective (3 credits)
- GEOG 5220 Field Map Skills (3 credits)
- GEOG 5360 Adventure Programming (3 credits)
- GEOG 5700 Wilderness First Aid (1 credit)
- GEOG 5750 Wilderness First Responder (2 credits)

Program Learning Outcomes | Outdoor Leadership

1. complete the Wilderness First Responder certification.

2. acquire the fundamental skills needed for different outdoor recreation disciplines, including proper equipment use and basic techniques.

3. develop essential camping skills, including campsite selection, tent setup, fire building, cooking outdoors, and Leave No Trace principles. They will demonstrate the ability to plan and execute safe and environmentally responsible camping trips.

4. learn and practice safety procedures, risk assessment, and emergency response protocols for all covered activities. They will be capable of planning and executing outdoor adventures with a focus on safety and preparedness, including navigation and first aid skills.

5. develop a deep understanding of Leave No Trace (LNT) principles and ethics. They will be able to apply these principles to minimize their environmental impact while camping, hiking, and engaging in other outdoor activities.

Environmental Studies Courses

ENVR 5040 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. (Also offered under ECON 5040.)

ENVR 5050 Geochemistry (3 credits)
Study of processes in the lithosphere, hydrosphere, and atmosphere; cycling of the elements; weathering; microbe-mineral interactions; nanoparticles; microscopic imaging. Prerequisite: Consent of instructor.

ENVR 5110 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. Prerequisite: Consent of instructor.

ENVR 5150 Outdoor Field Skills (2 credits)
This hands-on, place-based course is designed to get students out in the field learning practical skills that will serve them in any number of professions and hobbies. We will take advantage of our surroundings and learn a variety of outdoor skills including but not limited to snowshoeing, cross-country skiing, camping, rock climbing, and mountain biking. Building these skills as well as safety procedures, risk assessment, and emergency preparedness will serve anyone looking for an outdoor career or hobby. We will also apply Leave No Trace principles to all we do and discuss the importance of minimizing environmental impacts while engaging in outdoor activities. Prerequisite(s): None.

ENVR 5200 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. Prerequisite: Consent of instructor.

ENVR 5210 Environmental Law and Policy (3 credits)
Overview of environmental laws, regulations, and policies. Prerequisite: Consent of instructor.

ENVR 5220 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. Lecture and laboratory. Prerequisites: CHEM 1112 or CHEM 2212 or ENVR 2000 or GEOL 1110 or consent of instructor.

ENVR 5230 Air Pollution Technology (4 credits)
In-depth overview of sources and types of air pollution, major environmental impacts, regulations, and technologies for control and cleanup. Prerequisite: ENVR 5210 and ENVR 5300 or consent of instructor.

ENVR 5240 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, control, and remediation of wastes. Prerequisite: ENVR 5300 or consent of instructor.

ENVR 5260 Risk, Resilience and Sustainable Community Development (3 credits)
We are experiencing dramatic, rapid, unexpected environmental changes due to human caused global climate change, stresses on natural resources as well as our ability to manage our waste generation. In this course, we will explore risk and resilience from a community development perspective. How can we work together in community to survive disruption and anticipate, adapt, and flourish in the face of change. Using Bemidji State University and the greater Bemidji area as a case study we will explore key quantitative as well as qualitative indicators of resilience such as energy, housing, transportation, water, materials & waste, health & wellness, and economic opportunity. Students will be asked to produce quantitative and qualitative assessments of the resilience in our BSU-Bemidji community and actively engage with citizens and working professionals to advance suggestions on how to strengthen our campus and community¿s resilience.

ENVR 5300 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. Prerequisite: Consent of instructor.

ENVR 5400 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. Prerequisite: Consent of instructor.

ENVR 5500 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. Prerequisite: Consent of instructor.

ENVR 5600 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: Consent of instructor.

ENVR 5610 Sustainability: Theory and Practice (4 credits)
Becoming agents of positive change in our communities requires building many different skill sets. This course will build core competencies of community leadership and focus on sustainability issues in our community. We will integrates theories, principles and practices of sustainability throughout the course and explore how various entities such as the University, the City of Bemidji, local tribes, companies, non-profits and individuals approach sustainability actions and choices. We will explore issues such as energy, water, waste, food and transportation as well as diversity, equity and inclusion in decision making. Students will be asked to identify a specific problem facing our community and utilize Problem and Project Based Learning (PBL) techniques to directly engage with these local issues, connect with the stakeholders involved and work together to propose potential solutions. Prerequisite(s): ENVR 2000 or consent of instructor.

ENVR 5700 Natural Resource Management (3 credits)
This class offers an interdisciplinary introduction to the principles of natural resource management highlighting the biological and physical science aspects of natural resource management at local, national, and global scales. Topics covered may include resource management of soil, water, forests, rangelands, wetlands, waterways, and wildlife. This is an intermediate-level course designed to introduce key concepts and topical areas in natural resource management. A specific focus for the course will be the application of adaptive natural resource management to key Minnesota resources at multiple levels of government (local, county, state, federal, and tribal) over time. Prerequisite(s): consent of instructor.

ENVR 5710 Indigenous Environmental Knowledge: Global Perspective (3 credits)
Indigenous cultures refer to pre-colonial societies who today represent a minority, non-dominant group in the societies presently residing in territories these cultures once developed. Throughout their history, Indigenous people have developed their own body of environmental knowledge that they have passed on, generation to generation. This course will provide students with a global perspective of Indigenous environmental knowledge and how this knowledge has affected the relationship of the Indigenous peoples with the natural world and its resources. Students will also investigate present-day political, economic, social, and technological issues related to incorporating Indigenous environmental knowledge into sustainability efforts.

ENVR 5720 Food Sovereignty, Health & Indigenous Environments (3 credits)
This course is designed to help students understand the interconnections of food sovereignty, health and environmental sustainability. Students will explore why it is not only important for people to control the way their food is produced, distributed, and consumed but why the food should be appropriate to the cultural background of the people consuming it. Students will learn the critical connections between food and health with an exploration of those influences within the context of Indigenous worldviews and ways of knowing. This is an experiential learning course -- learning through interaction, projects, and reflection. This course may be suitable as an elective in Indigenous Studies and Environmental Studies, Health and Nursing degree programs.

ENVR 5730 Sustainable Communities: Local Indigenous Perspective (3 credits)
Human societies all across the globe have developed rich sets of experiences and explanations relating to the sustainable communities they live, work and play in. This course is designed to introduce students to the basic concepts of these sustainable communities. Students will learn how these communities function, their challenges, and the critical networks that exist with the environment. This class will explore the role of Indigenous knowledge and traditional ways of learning, as well as scientific knowledge in maintaining the sustainability of a community. This is an experiential learning course -- learning through interaction, projects, and reflection.

ENVR 5740 Environment, Wellness & the Sacred Connection to Place (3 credits)
In Indigenous communities, there is a deep and lasting connection to place. Today, there exists overwhelming evidence that connection to place offers important elements for overall individual wellness. However, many communities face challenges in their environments that are detrimental to their health and well-being. To support these communities, there is a need to reconnect them with ways to restore the sustainability of their environment and connection to place. In this course, students will learn the critical connections between the environment and health and will explore the influences of connection to place within the context of Indigenous worldviews and ways of knowing. This is an experiential learning course -- learning through interaction, projects, and reflection.

ENVR 5750 Sustainable Communities: Global Indigenous Perspective (3 credits)
Throughout their history, Indigenous people have developed their own body of knowledge on global sustainability that they have passed on, generation to generation. This course will provide students with a large picture perspective of global Indigenous sustainability knowledge and viewpoints and how this perspective continues to affect the relationship of the Indigenous peoples with the natural world and its resources. Students will also investigate present-day global political, economic, social, and technological issues related to incorporating Indigenous views into sustainability efforts across the continents.

ENVR 5800 Sustainability Analytics & Modeling (3 credits)
The aim of this course is to expose students to both introductory and advanced analytical methods for environmental applications. The class will provide a primer on introductory inferential statistics (sampling, probability, central tendencies, spread, t- tests and ANOVA) and work towards more advanced analytical applications which are geared towards research questions in Economics, Environmental Studies, Geology, and Geography. These techniques include multiple regression, logistic regression, multi-dimensional scaling, regression trees, cluster analysis, survival analysis and basic time series analysis. This class will focus on learning both the theoretical background and application of these methods and discuss the ethical and contextual issues that surround the use of statistical analysis in environmental research.

ENVR 5840 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.

ENVR 6250 Advanced Environmental Studies (3 credits)
The social causes, ecological impacts, and human health effects of environmental degradation. Students provide in-depth analyses of environmental problems through laboratory research and field studies, library research, oral presentation, and written communication.

ENVR 6400 Research and Project Design (3 credits)
Advanced learning in research and project design as it applies to qualitative and quantitative research, sampling and data collection methods, experimental vs. non-experimental procedures, and various statistical methods for data analysis.

ENVR 6410 Environmental Data Science and Modeling (3 credits)
This graduate-level course develops analytical reasoning and quantitative skills for environmental and biological sciences. It provides a foundation in inferential statistics, extends into regression and generalized linear modeling, and introduces multivariate and machine-learning techniques commonly used in research across ecology, fisheries, environmental monitoring, field toxicology, and bench biology. Emphasis is placed on experimental design, reproducibility, visualization, and interpretation of complex datasets. Students will learn to implement analyses using R and produce fully reproducible reports. The course concludes with an introduction to Bayesian reasoning and Monte Carlo simulation as tools for uncertainty analysis.

ENVR 6500 Advanced Graduate Project I (2 credits)
Students learn a combination of literature, laboratory, or field techniques and carry out research under the supervision of a faculty advisor. Students will work together to critique and improve course projects during the semester.

ENVR 6600 Capstone Report (2 credits)
In this final course, students work closely with the professor of record and up to 2 additional professionals to design and implement a capstone project. Capstone projects involve scholarly and/or research-based pursuit of knowledge and content development. Though projects may vary based on individual interests, each will reflect a significant level of scholarship and creativity and build upon existing knowledge to create new learning experiences and an enhances level of expertise.

ENVR 6700 Graduate Sustainability Seminar (1-3 credits)
This course exposes graduate students to a range of topics within environmental studies from a sustainability perspective. In a seminar format, students will discuss environmental problems in a deeper context and present progress reports on their thesis research and projects. Faculty and guests will make presentations for students to discuss. Students may enroll for up to 6 credits.

ENVR 6790 Environmental Project Management (3 credits)
Students will learn the fundamentals of the management of environmental projects, including stakeholder engagement, planning and achieving realistic project milestones, and modifications needed to ensure project success. A practical investigation of grantsmanship with emphases on funding sources, creative writing, effective conduct of project and reporting results. Gives students first-hand practice in all phases of grantsmanship. Review and critique both qualitative and quantitative model proposals.

ENVR 6880 Seminar (1 credit)
This course is designed to guide biology graduate students in completion of their M.S. in Biology/Environmental Studies. Each semester students will have specific requirements for completing the course, which will move them towards completion of their degree. (Also offered under BIOL 6880.)

ENVR 6899 Capstone (3 credits)
In this final course, students work closely with the professor of record and 2 additional professionals to design and implement a capstone project. Capstone projects involve scholarly and/or research-based pursuit of knowledge and content development. Though projects may vary based on individual interests, each will reflect a significant level of scholarship and creativity and build upon existing knowledge to create new learning experiences and an enhances level of expertise. (Also offered under ENVR 6899.)

ENVR 6910 Directed Independent Study (1-9 credits)
Directed Independent Study

ENVR 6920 Directed Group Study: Seminar (2 credits)
When taken as Graduate Seminar the following description applies: Interdisciplinary study and detailed discussion of major areas of environmental controversy with emphasis on individual investigation of the available literature and effective oral presentation. Prerequisite: Consent of instructor.

ENVR 6970 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 6990 Thesis (1-6 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

Forestry

Forestry Courses

FOR 5110 Forest Mensuration (3 credits)
This course builds on descriptive statistics introduced in Forest Biometry to explore claims made through inferential statistical tests, specifically understanding the scope and limits of statistical evidence. We will explore and evaluate different models used in forest management: growth and yield projections, log rules for standing timber, stocking charts, and emerging technologies relying on satellite imagery. Prerequisite(s): None.

FOR 5120 Forest Hydrology (3 credits)
This course will explore applications of adaptive silviculture, a forest management approach that applies an understanding of the structure, function, and dynamics of natural forest ecosystems to achieve integrated environmental, economic, and social outcomes. Prerequisite: FOR 5210 or consent of instructor.

FOR 5130 Dendroecology (3 credits)
This course introduces students to dendrochronology¿the science of dating and interpreting annual growth rings in trees¿with a focus on dendro-ecology. Students will explore how tree rings reveal forest dynamics, disturbance history, and management implications. Through lectures, labs, and hands-on fieldwork at Hobson Memorial Forest, students will learn how to collect and analyze tree-ring data to answer ecological and applied forest management questions. Prerequisite(s): None.

FOR 5140 Forest Health (4 credits)
This course will introduce students to the concepts of forest health and illustrate how forested ecosystems are influenced by the interaction of diseases, insects, and fire, as well as other biotic and abiotic disturbance agents. Emphasis will center on forests of the Great Lakes region. Students will learn the biology and ecology of common forest insects and diseases while also evaluating management strategies to prevent and mitigate their adverse effects. Prerequisite(s): None.

FOR 5150 Forest Issues and Policy (3 credits)
This course will review the socio-cultural movements and events as well as major pieces of legislation that have helped shape the profession of forestry over the past 150 years. Contemporary treatment of issues such as below cost timber sales, managing for endangered species, climate change, and professional certifications will inform some of the conversations on current forest policy. Prerequisite(s): None

FOR 5210 Regional and International Silviculture (3 credits)
This course will examine the varied silvicultural approaches and practices across different regions in the US. Differences in species, growing conditions, and market forces will inform the discussions. Additionally, we will review a range of international forestry issues taking place in southeast Asia, equatorial Africa, and the rainforests of South America. Prerequisite(s): None.

FOR 5220 Adaptive Silviculture (3 credits)
This course will explore applications of adaptive silviculture, a forest management approach that applies an understanding of the structure, function, and dynamics of natural forest ecosystems to achieve integrated environmental, economic, and social outcomes. Prerequisite: FOR 5210 or consent of instructor.

FOR 5230 Integrated Forest Management (3 credits)
This course will focus on negotiating the competing priorities often encountered when managing forests for multiple objectives. Case studies will be examined to provide examples of strategic planning, coordination frameworks, and the analytical concepts, techniques, and skills used in conflict resolution. Students will engage in group discussions to practice communication skills in advocating for various forest management practices from different points of view representing different stakeholder interests. The production of a Forest Management Plan is the primary piece of student work in this course. Prerequisite(s): None.

FOR 5310 Tribal and Community Forestry (3 credits)
With over 40% of Minnesota's forested landscape being privately owned, tribal, community, and individual forest management plays an important role in conserving forested ecosystems, supporting local livelihoods, and maintaining cultural values. This course is designed to develop and refine your understanding of tribal and non-government natural resource management practices. Prerequisite(s): None

FOR 5510 Forest Biometry (4 credits)
Forest Biometry will examine the forest measurement and sampling methods as well as the sampling designs and statistical approaches commonly implemented in forest management. Measurement and sampling methods topics will focus on the techniques used in determining the volume and quality of logs, trees, and stands of trees. Sampling designs and statistical approaches topics will focus on methods of collecting and analyzing forest data for resources management, including specialty forest products, fuels management, and conservation of rare populations. Prerequisite(s) None.

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

Gender and Women's Studies

Gender and Women's Studies Courses

GWS 5100 Topics in Women's Studies Gender Studies (subtitled) (3 credits)
Diverse topics encompass an international range of gendered experiences and may include sources from literature, law, history, myth/religion, psychology, sociology, philosophy, theology, and the visual arts. Topics may include: myths and spirituality; mother, daughter, self; writing women's lives; art, erotica, and pornography in American Culture; reproductive freedom; Indigenous women's issues; sexualities and difference in America. May be taken for credit under different subtitles.

GWS 5850 Feminist Theories and Practice (3 credits)
A critical examination of the main currents in contemporary feminist thought. Explores systems of ideas which explain the nature and causes of the position of women and men in society. The course includes a capstone experience involving student production of an original piece of work linking the student's discipline to a gender issue through the use of feminist theory and research.

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

Dr. Richard Koch (richard.koch@bemidjistate.edu) chair

Programs

- Geographic Information Science *cert*
- Outdoor Leadership *cert*

Geographic Information Science *cert*

Required Credits: 12
Required GPA: 3.00

I REQUIRED COURSES

Note: It is advised that students not having previously taken a GIS course include GEOG 5231, Introduction to Geographic Information Systems, as one of their courses

Select 4 courses from the following list:

- GEOG 5150 Applications of Machine Learning (3 credits)
- GEOG 5226 Cartography (3 credits)
- GEOG 5231 Introduction to Geographic Information Systems (3 credits)
- GEOG 5232 Intermediate Geographic Information Systems (3 credits)
- GEOG 5255 Introduction to Remote Sensing (3 credits)
- GEOG 5265 Spatial Analysis (3 credits)
- GEOG 5275 Advanced Geographic Information Systems (3 credits)
- GEOG 5285 Drone Applications (3 credits)
- GEOG 5910 Directed Independent Study (3 credits)
  *or*GEOG 5970 Internship (3 credits)
  *or*GEOG 5980 Research (3 credits)

Program Learning Outcomes | Geographic Information Science

1. Comprehend the fundamental concepts and practices of Geographic Information Systems (GIS).

2. Collect, manage, analyze, and visualize geospatial data using GIS software.

3. Employ cartographic and map design principles to produce maps and visualizations.

4. Select and apply appropriate geoprocessing tools and spatial analysis techniques to solve real-world problems.

5. Effectively communicate spatial information through maps and visualizations.

Outdoor Leadership *cert*

Required Credits: 14
Required GPA: 3.00

I REQUIRED COURSES

Complete the following courses:

- ENVR 5150 Outdoor Field Skills (2 credits)
- ENVR 5710 Indigenous Environmental Knowledge: Global Perspective (3 credits)
- GEOG 5220 Field Map Skills (3 credits)
- GEOG 5360 Adventure Programming (3 credits)
- GEOG 5700 Wilderness First Aid (1 credit)
- GEOG 5750 Wilderness First Responder (2 credits)

Program Learning Outcomes | Outdoor Leadership

1. complete the Wilderness First Responder certification.

2. acquire the fundamental skills needed for different outdoor recreation disciplines, including proper equipment use and basic techniques.

3. develop essential camping skills, including campsite selection, tent setup, fire building, cooking outdoors, and Leave No Trace principles. They will demonstrate the ability to plan and execute safe and environmentally responsible camping trips.

4. learn and practice safety procedures, risk assessment, and emergency response protocols for all covered activities. They will be capable of planning and executing outdoor adventures with a focus on safety and preparedness, including navigation and first aid skills.

5. develop a deep understanding of Leave No Trace (LNT) principles and ethics. They will be able to apply these principles to minimize their environmental impact while camping, hiking, and engaging in other outdoor activities.

Geography Courses

GEOG 5125 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.

GEOG 5130 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.

GEOG 5140 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.

GEOG 5150 Applications of Machine Learning (3 credits)
The uses of machine learning, data science and artificial intelligence are everywhere today. Much of the data we create through our daily activities gets processed and used to customize services, offer better health care, or target you for specific advertising. Although there are many benefits of using data in these ways, there can be pitfalls and caution is always warranted when employing these tools. As such this class attempts to teach you the basic foundations of machine learning with particular emphasis to its application in environmental and spatial analysis. To this end, we will use the python development environment and we will emphasize the most commonly used tools including supervised learning algorithms (logistic regression, linear regression, neural networks), unsupervised learning algorithms (k- means, principal component analysis). In addition, we also cover anomaly detection, natural language processing and building recommender systems. A central focus will be building this foundation so students can successfully participate in a Kaggle competition which is a premier venue for testing your machine learning skillset.

GEOG 5190 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. Prerequisites: GEOG 2200. While not required, it is highly recommended that GEOG 4265/5265 and GEOG 4210/5210 be taken previously or concurrently.

GEOG 5220 Field Map Skills (3 credits)
In this course, you will experience using industry standard GIS technology utilized in the field for data collection and analysis. You will practice techniques and best practices for sampling and collection of spatial data. Prerequisite: GEOG 5231.

GEOG 5226 Cartography (3 credits)
Construction and production of maps with an emphasis on computer-generated thematic maps and graphs. Lecture 3 hours, laboratory 2 hours. Prerequisite: Consent of instructor.

GEOG 5231 Introduction to Geographic Information Systems (3 credits)
This course develops a proficiency in basic GIS skills for those new to GIS. The premise of the course revolves around analytical problem solving using spatial data and techniques. The course also focuses on graphic communication of quantitative data including cartographic mapping concepts and data classification. This course concentrates on learning to navigate the current version of ArcGIS software at a beginner's level and developing and creating maps as communication tools.

GEOG 5232 Intermediate Geographic Information Systems (3 credits)
This course covers the theories and application of GIS for spatial data management, thematic mapping, and environmental data analysis and modeling. Intermediate GIS expands on the concepts and methods presented in the Introduction to GIS course and guides students through a more comprehensive overview of the geospatial analysis principles and techniques used in GIS. Course objectives include (1) enhance and build knowledge of GIS as a system and science, (2) improve geospatial reasoning and analysis skills, and (3) develop and enhance problem solving skills. Prerequisite: GEOG 5231 or consent of instructor.

GEOG 5255 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 5231 or consent of instructor.

GEOG 5265 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.

GEOG 5275 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 5231 and GEOG 5232.

GEOG 5285 Drone Applications (3 credits)
This course explores the use of Unmanned Aircraft Systems (UAS, aka ¿drones¿) in natural resources management and environmental sciences with an emphasis on forestry. Students will engage in hands-on experience with planning drone mapping operations, collecting data using drone systems, and the subsequent processing and analysis of the data acquired from drone flights. Prerequisite(s): None.

GEOG 5360 Adventure Programming (3 credits)
Nuts and bolts of planning educational outdoor adventure experiences. Also reviews theory, literature, and program types. Prerequisite(s): None

GEOG 5410 Geography of North America (3 credits)
A regional analysis of the physical, demographic, economic and cultural characteristics of the nations in North America.

GEOG 5531 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 5532 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. GEOG 3531/5531 or consent of instructor.

GEOG 5550 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. Prerequisites: GEOG 2400 or consent of instructor

GEOG 5560 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.

GEOG 5570 Recreational Lands Management for Sustainable Tourism (3 credits)
This course investigates the planning processes involved with management of natural resources on public recreational lands. More specifically, it covers topics such as planning efforts and approaches to bolster local economies by increasing recreation opportunities for both residents and tourists alike, while balancing sustainability to ensure the vitality of the tourism sector and quality resources for generations to come. Prerequisite(s): none.

GEOG 5580 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.

GEOG 5630 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. Also BIOL 5630

GEOG 5700 Wilderness First Aid (1 credit)
Wilderness Advanced First Aid is an initial course for outdoor adventurers and outdoor professionals who may need to provide patient care when help is delayed for hours to days. The course focuses on basic lifesaving skills, patient assessment, field care for common injuries and illnesses, environmental illnesses, and proper reporting for rescue assistance. Prerequisite(s): None.

GEOG 5750 Wilderness First Responder (2 credits)
Following the Wilderness Medical Associates Wilderness First Responder curriculum, this course is ideally suited to professionals or other individuals who may find themselves as the primary medical caregivers for a long time. The program¿s goal is to help learners develop the critical thinking skills necessary to develop appropriate diagnoses and treatment plans for patients being managed in remote, low-resource areas. Students who finish this course and complete the WFR tests will receive the Wildness Medical Associates Wilderness First Responder Certificate. Prerequisite(s): GEOG 5700.

GEOG 5810 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.

GEOG 5820 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. Prerequisite: GEOG 5820

GEOG 5840 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 5860 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.

GEOG 5870 Planning for Sustainable Cities (3 credits)
Using a World Regional Geography approach, this course examines the dynamics of urban development across the globe, with particular reference to sustainable urban design and urban biodiversity. Political, cultural, environmental and economic influences on the city are examined in both the developed and the developing world.

GEOG 5910 Directed Independent Study (3 credits)
Arranged individual study

GEOG 5931 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.

GEOG 5932 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.

GEOG 5933 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.

GEOG 5934 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.

GEOG 5935 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.

GEOG 5936 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.

GEOG 5937 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.

GEOG 5938 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.

GEOG 5939 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.

GEOG 5970 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.

GEOG 5980 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

Geology

Graduate Faculty

Dr. Miriam Rios-Sanchez

Geology Courses

GEOL 5120 Soils (4 credits)
Introduction to principles of soil genesis, classification, physical and chemical properties, and biological significance. Lecture and laboratory. Prerequisites: (BIOL 1211 or BIOL 1120) and (GEOL 1110 or BIOL 1212) or consent of instructor. May not be offered every year.

GEOL 5211 Environmental Hydrology (3 credits)
The course provides a basic understanding of the principles and processes governing the movement of water through the hydrologic cycle, including atmospheric moisture flow, surface runoff, infiltration, and groundwater flow. Environmentally relevant applications based on case studies will be studied. The course include coverage of contemporary global issues related to water resources, sustainable development, and climate change.

GEOL 5212 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. Prerequisite: GEOL 5211.

GEOL 5300 Global Environmental Change (3 credits)
This class offers an interdisciplinary introduction to the principles of climate, ecosystems, and biogeochemistry needed to understand human impacts on the natural environment. We will also discuss global change prediction and the scientific bases for global change assessments and policy measures. Key topics are the physical climate system and its variability, the carbon cycle and related biogeochemistry and ecosystem processes, land use issues, the interactions among climate, ecosystems, and biogeochemistry, and the impact of global change on societally relevant parameters. Common threads in all of these topics will pervade the whole semester; these include the use of observations and models, the consideration of multiple scales of change (temporal and spatial), the interaction of human behaviors and choices with natural systems, and the linkages among aspects of global change science (may not be offered every year). Prerequisites: Consent of Instructor

GEOL 5400 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.

GEOL 5500 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.

GEOL 5600 Stratigraphy and Sedimentation (3 credits)
Study of sedimentary rocks. Recognition of the physical and biological factors affecting deposition. Introduction to stratigraphic principles. Lecture and laboratory.

GEOL 5700 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.

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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1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

Health

Health Courses

HLTH 5100 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.

HLTH 5150 Principles of Public Health and Health Promotion (3 credits)
This course is designed to provide entry-level health education and community health students with the historical and ethical foundations, concepts, models, theories, strategies, and applications to promote individual, family, and community well-being. Prerequisite(s): None.

HLTH 5200 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.

HLTH 5206 Teaching Secondary School Health (3 credits)
This course prepares health educators to design, deliver, and assess effective secondary school health instruction aligned with state and national standards. Students will develop developmentally appropriate units and lessons, apply skills-based health education practices and design equitable and engaging learning experiences that supports the needs of the learners. Emphasis is on curriculum planning, instruction, assessment and creating physically and emotionally safe learning environments. Recommendation: This course should be taken with HLTH 5870.

HLTH 5300 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, aging, athletes and teenagers, and cultural differences in dietary practices.

HLTH 5400 Drug Education, Stress and the Mind (2 credits)
This course examines the physiological, psychological, social, and cultural dimensions of drug use, abuse, and dependency in relation to personal and community health. Emphasis is placed on the interconnectedness between substance use, stress, mental health, and overall well-being. Students explore prevention and intervention strategies that promote resilience, positive decision-making, and healthy coping behaviors. The course integrates national and Minnesota laws, policies, and school-based approaches to substance use prevention, stress management, and mental health promotion.

HLTH 5410 Health Programming (3 credits)
This course offers a comprehensive study of the process of identifying health problems, establishing health programming, promoting, implementing and evaluating the program. Vision and mission statements along with goals, objectives, timetables, interpretation of results will also be examined. The course parallels CHES criteria and utilizes a local community health organization to integrate student involvement. Recommendations include completion of: HLTH 3150, 3500, 3710, and 4206 for health majors. Non-majors may select this course at any time. NOTE: Health Education Majors, refer to the syllabus for the Professional Educator Licensing and Standards Board (PELSB) requirements.

HLTH 5500 Personal and Community Health (3 credits)
This course provides a comprehensive study of personal and community health with an emphasis on the knowledge, skills, and dispositions expected of community and health education professionals. Students will examine the factors that influence individual health behaviors, explore consumer health issues, and evaluate strategies for improving personal well-being through prevention, decision-making, and behavior change. At the community level, students will analyze public health data, identify determinants of health, examine the role of government and organizations in promoting wellness, and evaluate programs that address health disparities. Students will develop skills in accessing valid information, advocating for health, and creating environments that support healthy behaviors in schools, families, and communities. Prerequisite(s): None.

HLTH 5710 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.

HLTH 5870 Field Experience in Health Teaching (1 credit)
A supervised experience in 5-12 Health Education settings designed to prepare teacher candidates for professional practice. Student candidates will observe, assist and teach under the guidance of a licensed Health Education teacher while demonstrating competencies aligned with Minnesota Professional Educator Licensing and Standards Board (PELSB) and National/State Health standards. Emphasis is placed on lesson planning, classroom management, inclusion, professional collaboration, and reflective practice. Required: A minimum of 30 field experience hours per credit for undergraduates; 40 hours for Health add-on licensure candidates.

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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1990, 2990, 3990, 4990 THESIS

History

History Courses

HST 5650 Environmental History (3 credits)
Environmental History is a relatively new historical discipline dedicated to understanding how our surroundings have influenced our choices and how we have affected our surroundings. Until very recently, history has treated the physical environment of continents, rivers, soils, and climates as a backdrop for political, social, or cultural action. Sometimes a colorful background, but not often a factor in the action taking place in the foreground. At its most basic, Environmental History makes three claims. First, we are influenced by our environments. Second, we change our environments. Third, our knowledge of and attitudes toward our environment change. In this course we'll look at American History using each of these ideas and see things we wouldn't have seen otherwise.

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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Mathematics

Programs

- Elementary and Middle Level Mathematics Education, M.S. *master*
- Mathematics Education, M.S. *master*

Elementary and Middle Level Mathematics Education, M.S. *master*

Required Credits: 34
Required GPA: 3.00

I. REQUIRED EDUCATION CORE

Complete the following courses:

- ED 6107 Advanced Educational Psychology (3 credits)
- MATH 6050 Assessment in the Mathematics Classroom (3 credits)
- MATH 6069 Mathematics and Culture (3 credits)

II. REQUIRED MATHEMATICS ELECTIVE COURSES

Complete the following courses:

- MATH 6061 Number Sense for Teachers (3 credits)
- MATH 6062 Number Theory for Teachers (3 credits)

Select at least 5 courses from the following:

- MATH 5065 Mathematical Foundations of Algebra (4 credits)
- MATH 5066 Geometry and Technology (4 credits)
- MATH 5067 Data, Probability, and Statistics (4 credits)
- MATH 6200 Structures of Discrete Mathematics (3 credits)
- MATH 6500 Geometry in the Classroom for Teachers (3 credits)
- MATH 6600 Probability for Teachers (3 credits)

III. REQUIRED PORTFOLIO AND RESEARCH

Note: MATH 6050 should be taken prior to the collection of evidence for the pedagogical portfolio.

Note: Consult with advisor before registering for MATH 6055.

Complete the following courses:

- MATH 6055 Pedagogical Portfolio and Action Research (2 credits)

Program Learning Outcomes | Elementary and Middle Level Mathematics Education, M.S.

1. Knowledge: Students will gain an in depth understanding of mathematics content appropriate for elementary and middle level teachers.

2. Pedagogy: Students will develop an understanding of the uses and limitations of a variety of instructional methodologies.

3. Curricular Design: Student will design lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

4. Research: Students will gain a understanding of the literature and use that understanding to answer research questions in a specialized area of mathematics education.

5. Professional Advancement: Students will apply what they have learned to improve the learning of their students and enhance the mathematics curriculum at their schools.

Mathematics Education, M.S. *master*

Required Credits: 32
Required GPA: 3.00

I. REQUIRED EDUCATION CORE

Complete the following courses:

- ED 6107 Advanced Educational Psychology (3 credits)
- MATH 6050 Assessment in the Mathematics Classroom (3 credits)
- MATH 6069 Mathematics and Culture (3 credits)

II. REQUIRED MATHEMATICS ELECTIVE COURSES

Select at least 12 credits from the following:

Note: Some courses listed have prerequisites not required in this program.

Other math content courses may be used with consent of advisor.

- MATH 5240 Number Theory (3 credits)
- MATH 5260 Mathematical Problem Solving (3 credits)
- MATH 5310 Linear Algebra (4 credits)
- MATH 5371 Modern Algebra (3 credits)
- MATH 5410 Introduction to Analysis (3 credits)
- MATH 5440 Introduction to Fractals & Chaos (3 credits)
- MATH 5560 Classical and Modern Geometry (3 credits)
- MATH 5710 Mathematical Modeling (3 credits)
- MATH 5720 Numerical Methods (3 credits)
- MATH 5760 Topics in Applied Mathematics (3 credits)
- MATH 5820 History of Mathematics (3 credits)

- MATH 6350 Advanced Abstract Algebra (3 credits)
- MATH 6550 Advanced Geometry (3 credits)
- STAT 5610 Time Series Analysis (3 credits)
- STAT 5631 Probability and Statistics I (4 credits)
- STAT 5632 Probability and Statistics II (3 credits)
- STAT 5660 Statistics for the Health Sciences (3 credits)

III. REQUIRED MATHEMATICS PEDAGOGY ELECTIVE COURSES

Select at least 9 credits from the following (or other pedagogy courses approved by an advisor):

- MATH 5065 Mathematical Foundations of Algebra (4 credits)
- MATH 5066 Geometry and Technology (4 credits)
- MATH 5067 Data, Probability, and Statistics (4 credits)
- MATH 6061 Number Sense for Teachers (3 credits)
- MATH 6062 Number Theory for Teachers (3 credits)
- MATH 6200 Structures of Discrete Mathematics (3 credits)
- MATH 6500 Geometry in the Classroom for Teachers (3 credits)
- MATH 6600 Probability for Teachers (3 credits)

IV. REQUIRED PORTFOLIO EVALUATION AND RESEARCH

Note: Consult with an advisor before registering for MATH 6055:

- MATH 6055 Pedagogical Portfolio and Action Research (2 credits)

COMPETENCY REQUIREMENT

Completion of MATH 6050, Assessment in the Mathematics Classroom, with a grade of 'B' or better, or the equivalent as approved by the department.

Program Learning Outcomes | Mathematics Education, M.S.

1. Knowledge: Students will gain an in depth understanding of mathematics content appropriate for secondary school teachers.

2. Pedagogy: Students will develop an understanding of the uses and limitations of a variety of instructional methodologies.

3. Curricular Design: Student will design lessons and curriculum that communicate mathematical concepts to learners with diverse learning styles and ability levels.

4. Research: Students will gain a understanding of the literature and use that understanding to answer research questions in a specialized area of mathematics education.

5. Professional Advancement: Students will apply what they have learned to improve the learning of their students and enhance the mathematics curriculum at their schools.

Mathematics Courses

MATH 5065 Mathematical Foundations of Algebra (4 credits)
This course investigates concepts of patterns, relations, and functions.

MATH 5066 Geometry and Technology (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 for Geometry. Prerequisites: MATH 1011 or equivalent or consent of instructor; (Might not be offered every year.)

MATH 5067 Data, Probability, and Statistics (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.

MATH 5240 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.

MATH 5260 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.

MATH 5310 Linear Algebra (4 credits)
Systems of linear equations, linear transformations, matrix operations, vector spaces, eigenvalues and eigenvectors, orthogonality, and applications.

MATH 5350 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. Prerequisite(s): MATH 5310 or equivalent.

MATH 5371 Modern Algebra (3 credits)
A study of abstract algebraic systems with an emphasis on groups and an introduction to rings. Prerequisite: MATH 5310 or equivalent.

MATH 5410 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.

MATH 5440 Introduction to Fractals & Chaos (3 credits)
An introduction into 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.

MATH 5560 Classical and Modern Geometry (3 credits)
Euclidean and non-Euclidean geometry, axiomatic systems, the geometry of solids, transformations, measurement, and fractal geometry.

MATH 5710 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 physical sciences, economics, the social sciences, or other areas of interest. A graphing calculator is required.

MATH 5720 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: Programming competency or consent of instructor.

MATH 5760 Topics in Applied Mathematics (3 credits)
This course focuses on an advanced topic from applied mathematics. Possible topics include game theory, operations research, and cryptography. May be repeated for up to 6 credits with different topics. (Might not be offered every year.)

MATH 5820 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. Prerequisite: Consent of instructor.

MATH 5961 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5962 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5963 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5964 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5965 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5966 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5967 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5968 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 5969 Special Purpose Instruction (3 credits)
A course intended for specific groups or organizations outside the University community.

MATH 6050 Assessment in the Mathematics Classroom (3 credits)
Examination of two important parts of assessment. First is the assessment of students: changes in assessment, new tools for assessment, implementing new assessments, and using the results of assessment. Second, teachers need to understand and know how to assess their teaching or changes in their teaching practices. Teachers learn to pose measurable questions, collect data, statistically analyze the data, interpret the data, and present conclusions. Teachers are given assistance in transferring this process to analyzing their teaching practices or programs in their school. Prerequisite: Teaching license or consent of the instructor.

MATH 6055 Pedagogical Portfolio and Action Research (2 credits)
This course is the culmination of the student's coursework, analysis, and study. In MATH 6050, Assessment in the Mathematics Classroom, students examine the current practices in individual and classroom assessment and study the fundamentals of applying statistical methods for instructional analysis. Students implement those skills in this course. Students construct instructional units in some of the courses needed for their program. Students complete one instructional unit change in their classroom and analyze the unit as per the outline from MATH 6050. Students also conduct a literature review that directly relates to their instructional unit changes. The portfolio consists of the literature review, instructional unit changes, and analysis and is evaluated by the student's graduate committee. The student cannot proceed with the oral defense until the portfolio has been approved by the committee. This course is graded Satisfactory/Unsatisfactory only. Prerequisite: Teaching license or consent of the instructor.

MATH 6061 Number Sense for Teachers (3 credits)
Number sense is the ability to understand numbers, ways of representing numbers, relationships among numbers, and number systems, according to the National Council of Teachers of Mathematics. This course focuses on these issues by examining problems with quantitative information and exploring reasonable solutions. Prerequisite: Teaching license or teaching position or consent of instructor.

MATH 6062 Number Theory for Teachers (3 credits)
Analysis of activities and mathematical games to understand the underlying mathematics. Students also study the division algorithm, prime and composite numbers, greatest common divisor, least common multiple, the Euclidean algorithm, mathematical induction, linear Diophantine equations, famous number theory conjectures, and additional elementary number theory topics. Prerequisite: Teaching license or teaching position.

MATH 6069 Mathematics and Culture (3 credits)
This course will introduce students to the relationships between mathematics and cultures and how an understanding of these relationships can increase learning and success in the mathematics classroom. The main focus of this course is on current cultures and their mathematics although some history of cultural mathematics will be covered. Cultures from around the world will be examined and students will also be given the opportunity to study cultures of particular interest to them or of particular relevance to their career as an educator. This course is designed for students studying to become and students who already are mathematics educators. During their course capstone project students will explore principles of research design. Students will develop a hypothesis of areas for improvement over the course of one's graduate degree. In this course students will develop efficacy in academic writing skills including formatting of documents in alignment with the Americans with Disabilities Act (ADA) and American Psychological Association (APA) citation practices. Students will learn basic principles of educational research, analysis, and critique. This will provide the foundation for students completing their capstone project at the end of the program. This course should be taken early in a student's program of study to provide a sound basis for subsequent graduate-level coursework. Prerequisite(s): graduate status, or consent of instructor.

MATH 6200 Structures of Discrete Mathematics (3 credits)
Topics include problem solving, the counting principle, combinations, permutations, graphs, Euler circuits, Hamiltonian paths, Pascal's triangle, Venn diagrams, scheduling, and voting theory. Students are expected to use the concepts and methods of discrete mathematics to model and solve problems. Emphasizes instructional strategies to help all students learn. Prerequisite: MATH 6061.

MATH 6350 Advanced Abstract Algebra (3 credits)
Designed to deepen the algebraic background of students through the study of elementary number theory and modular arithmetic; the development of the rational, real and complex number systems; and an introduction to rings, integral domains and fields. Prerequisites: MATH 5310 or equivalent.

MATH 6500 Geometry in the Classroom for Teachers (3 credits)
This course uses typical classroom materials to examine the Van Hiele model, 3-dimensional and 2-dimensional geometric shapes, and measurement concepts. Emphasizes instructional strategies, manipulatives, and tools to enhance student learning. Prerequisite: Teaching experience or consent of the instructor.

MATH 6550 Advanced Geometry (3 credits)
Historical development and theorems of Euclidean and non-Euclidean geometry, properties of polygons and polyhedra, tessellations of the plane, measurement and strategies for teaching geometry.

MATH 6600 Probability for Teachers (3 credits)
Introduction to the terms and models of elementary probability. Emphasizes instructional strategies to help all students learn. Topics include definition of terms, the counting principle, event modeling, event analysis, probability determinations, empirical and theoretical probabilities, and use of simulations to analyze real world problems. Prerequisite: Teaching experience or consent of the instructor.

MATH 6980 Research (2 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

Modern Languages

Modern Languages Courses

ML 5430 Introduction to Linguistics (3 credits)
This course is an introduction to the study of language and linguistics. In this course, we will analyze the characteristics of language as well as its structure and organization. Besides that, we will study issues of language use including how languages vary, how pidgins and creoles are created, how language is learned, what motivate language users to choose specific vocabulary or language structures, and how language, culture and society are interconnected. Students in this course will acquire tools and knowledge to become conscious language users and to better communicate. This class is conducted in English.

ML 5450 Second Language Acquisition (3-4 credits)
This class will provide a general overview of the main theories of second language acquisition and how they are relevant for second language teaching. We will compare the different models of second language acquisition under the light of linguistic theory. Through the study of language and language acquisition, students will become aware of issues regarding social and cultural diversity, among others, socio-economic factors, ethnic backgrounds, gender, sexual orientation, age, and functional diversity. Students will practice their oral and written communication skills in the three modes: interpersonal (negotiation of meaning among individuals), interpretive (interpretation of the message produced), and presentational (creation of messages). Learning practices include lecture, individual and group projects, class discussions, student led discussions, writing reports and research projects.

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

Music

Programs

- Music Education, M.M.E. *mme*
- Arts Management *cert*

Music Education, M.M.E. *mme*

This 33 credit Master of Music Education program prepares K-12 teachers in choral, instrumental, and general music specializations. All students will study general music methods and will select a choral or instrumental conducting track. This cohort based program can be completed over three years in month-long summer intensives. Studies focus on Kodály pedagogy, conducting, musicianship, and private music study, culminating in a capstone recital, project, or research.

Required Credits: 33
Required GPA: 3.00

I. Required Foundation Courses

A. Musicianship
Complete the following courses:

- MUS 5111 Graduate Musicianship I (1 credit)
- MUS 6112 Graduate Musicianship II (1 credit)
- MUS 6113 Graduate Musicianship III (1 credit)

B. Performance Studies
Complete the following course (take 3 semesters):

- MUS 5210 Graduate Music Ensemble (1 credit)

Complete the following course (take 2 semesters)
Enroll in Fall and Spring between Summers II and III

- MUS 6804 Graduate Lesson (1 credit)

C. Teaching Pedagogy
Complete the following courses:

- MUS 5301 Models of Music Learning I (2 credits)
- MUS 6302 Models of Music Learning II (2 credits)
- MUS 6303 Models of Music Learning III (2 credits)

D. Contemporary Topics
Complete the following courses:

- MUS 5401 Topics in Music Education I (2 credits)
- MUS 6402 Topics in Music Education II (2 credits)
- MUS 6403 Topics in Music Education III (2 credits)

E. Curriculum
Complete the following courses:

- MUS 5601 Music Materials, Literature, and Analysis I (2 credits)
- MUS 6602 Music Materials, Literature, and Analysis II (2 credits)
- MUS 6603 Music Materials, Literature, and Analysis III (2 credits)

II. Required Electives

Select one specialization:

1. Choral and General Music
MUS 5640 must take 3 semesters

- MUS 5640 Choral Conducting and Pedagogy (2 credits)

2. Instrumental and General Music
MUS 5740 must take 3 semesters

- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

III. Professional Application

Complete the following course:

- MUS 6853 Capstone (1 credit)

Music Education, MME (33 credits) Sample Course Sequence / Suggested semester schedule

Summer I (10 credits)

- MUS 5111 Graduate Musicianship I (1 credit)
- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 5301 Models of Music Learning I (2 credits)
- MUS 5401 Topics in Music Education I (2 credits)
- MUS 5601 Music Materials, Literature, and Analysis I (2 credits)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Summer II (10 credits)

- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 6112 Graduate Musicianship II (1 credit)
- MUS 6302 Models of Music Learning II (2 credits)
- MUS 6402 Topics in Music Education II (2 credits)
- MUS 6602 Music Materials, Literature, and Analysis II (2 credits)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Fall Semester after Summer II (1 credit)

- MUS 6804 Graduate Lesson (1 credit)

Spring Semester after Summer II (1 credit)

- MUS 6804 Graduate Lesson (1 credit)

Summer III (11 credits)

- MUS 5210 Graduate Music Ensemble (1 credit)
- MUS 6113 Graduate Musicianship III (1 credit)
- MUS 6303 Models of Music Learning III (2 credits)
- MUS 6403 Topics in Music Education III (2 credits)
- MUS 6603 Music Materials, Literature, and Analysis III (2 credits)
- MUS 6853 Capstone (1 credit)

Choose Choral or Instrumental Track (select one)

- MUS 5640 Choral Conducting and Pedagogy (2 credits)
- MUS 5740 Instrumental Conducting and Pedagogy (2 credits)

Arts Management *cert*

Required Credits: 18
Required GPA: 3.00

I REQUIRED COURSES

Complete the following courses:

- MUS 5150 Arts Organization Management (3 credits)
- MUS 5170 Arts Organization Fundraising and Grant Writing (3 credits)
- MUS 5190 Arts Organization Innovation (3 credits)
- POL 5320 Non-Profit Management (3 credits)
- POL 5330 Non-Profit Financial Management (3 credits)

Complete the following course for 3 credits:

- MUS 5970 Internship (3 credits)

Music Courses

MUS 5000 Musicianship Review (1 credit)
Designed to satisfy deficiencies indicated by the Graduate Musicianship Placement Test. Develop preliminary audiation skills through sightsinging, dictation, musical memory, transposition, part-work, analysis, listening, improvisation, keyboard, music theory, and ear training. Use relative solmization, rhythm syllables, hand signs, conducting, stick notation, staff notation, and absolute letter names in a Kodály-inspired teaching sequence. Analyze and perform repertoire from Western and non-Western traditions. (Does not count toward the Master of Music Education degree. Should be completed prior to enrollment in MUS 5111 Graduate Musicianship I.)

MUS 5111 Graduate Musicianship I (1 credit)
Develop graduate level audiation skills through sightsinging, dictation, musical memory, transposition, part-work, analysis, listening, improvisation, keyboard harmony, and ear training. Use relative solmization, rhythm syllables, hand signs, conducting, stick notation, staff notation, and absolute pitch names in a Kodály-inspired teaching sequence. Analyze and perform pentatonic and diatonic repertoire from Western and non-Western traditions. Prerequisite(s): Pass the Graduate Musicianship Placement Test or complete MUS 5000 with a "B" or better or instructor permission.

MUS 5150 Arts Organization Management (3 credits)
This course will deepen students' understanding of managing an Arts Organizations. Topics covered include: the roles of the artistic leader, recruiting/retaining a Board of Directors, differentiating your arts organization, and building/maintaining a successful Arts Organization.

MUS 5170 Arts Organization Fundraising and Grant Writing (3 credits)
This course deepens students' understanding of fundraising and grant writing for Arts Organizations. Topics covered include grant writing, funding sources, engaging with donors, donor development, and financial sustainability.

MUS 5190 Arts Organization Innovation (3 credits)
This course deepens students' understanding of the roles of Arts Organization innovation. Topics covered include: innovating in arts organizations, assessing and analyzing innovation initiatives in Arts Organizations, and developing ways to leverage innovation for the arts.

MUS 5210 Graduate Music Ensemble (1 credit)
Develop musicianship skills, including audiation, musicality, intonation, music literacy, and technique, in an ensemble context. Perform works from a multiplicity of style periods and genres from Western and non-Western traditions. Culminates in a public performance. (Must be taken three times.)

MUS 5301 Models of Music Learning I (2 credits)
Articulate the philosophy, historical development, and teaching practices of major music education pedagogies suitable for children in early elementary grades. Create and teach general music lessons that demonstrate an understanding of short-range and long-range planning, learning objectives, learning outcomes, differentiated instruction, lesson design and delivery, and assessment. Develop a curriculum with Scope and Sequence. Special emphasis given to Kodály-inspired teaching and learning.

MUS 5401 Topics in Music Education I (2 credits)
Investigation of specialized topics in music education practice and research, including instructional methods; historical, philosophical, and social foundations; and contemporary issues in music education.

MUS 5601 Music Materials, Literature, and Analysis I (2 credits)
Begin to assemble a personal repertoire collection in the form of an Archive and Retrieval System for the purpose of extracting, sequencing, and teaching the elements of music. Develop techniques for researching, collecting, analyzing, classifying, retrieving, and notating musical selections. Music literature should be representative of a multiplicity of style periods and genres including folk, art, and vernacular music from Western and non-Western traditions and should fit within a Scope and Sequence. Such repertoire should be suitable for the beginning music learner.

MUS 5640 Choral Conducting and Pedagogy (2 credits)
Select, analyze, prepare, rehearse, and conduct choral music. Sequence musical materials as part of short- and long-term rehearsal planning. Fundamentals of vocal pedagogy will be included. Develop a portfolio of content related to ensemble administration and management. (May be repeated for credit.)

MUS 5740 Instrumental Conducting and Pedagogy (2 credits)
Select, analyze, prepare, rehearse, and conduct instrumental music. Sequence musical materials as part of short- and long-term rehearsal planning. Fundamentals of instrumental pedagogy will be included. Develop a portfolio of content related to ensemble administration and management. (May be repeated for credit.)

MUS 5970 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.

MUS 6112 Graduate Musicianship II (1 credit)
Continuation of MUS 5111 Graduate Musicianship I. Develop graduate level audiation skills through sightsinging, dictation, musical memory, transposition, part-work, analysis, listening, improvisation, keyboard harmony, and ear training in a Kodály-inspired teaching sequence. Use relative solmization, rhythm syllables, hand signs, conducting, stick notation, staff notation, and absolute pitch names. Analyze and perform diatonic and modal repertoire from Western and non-Western traditions. Prerequisite(s) MUS 5111 with a "B" or better or instructor permission.

MUS 6113 Graduate Musicianship III (1 credit)
Continuation of MUS 6112 Graduate Musicianship II. Develop graduate level audiation skills through sightsinging, dictation, musical memory, transposition, part-work, analysis, listening, improvisation, keyboard harmony, and ear training in a Kodály-inspired teaching sequence. Use relative solmization, rhythm syllables, hand signs, conducting, stick notation, staff notation, and absolute pitch names. Analyze and perform chromatic and contemporary repertoire from Western and non-Western traditions. Prerequisite(s): MUS 6112 with a "B" or better or instructor permission.

MUS 6302 Models of Music Learning II (2 credits)
Continuation of MUS 5301 Models of Music Learning I. Articulate the philosophy, historical development, and teaching practices of major music education pedagogies suitable for children in intermediate elementary grades. Create and teach general music lessons that demonstrate an understanding of short-range and long-range planning, learning objectives, learning outcomes, differentiated instruction, lesson design and delivery, and assessment. Develop a curriculum with Scope and Sequence. Special emphasis given to Kodály-inspired teaching and learning. Prerequisite(s): MUS 5301 with a "B" or better or instructor permission.

MUS 6303 Models of Music Learning III (2 credits)
Continuation of MUS 6302 Models of Music Learning II. Articulate the philosophy, historical development, and teaching practices of major music education pedagogies suitable for children in late elementary grades and beyond. Create and teach general music lessons that demonstrate an understanding of short-range and long-range planning, learning objectives, learning outcomes, differentiated instruction, lesson design and delivery, and assessment. Develop a curriculum with Scope and sequence. Special emphasis given to Kodály-inspired teaching and learning. Prerequisite(s): MUS 6302 with a "B" or better or instructor permission.

MUS 6402 Topics in Music Education II (2 credits)
Continuation of MUS 5401 Topics in Music Education I. Investigation of specialized topics in music education practice and research, including instructional methods; historical, philosophical, and social foundations; and contemporary issues in music education. Prerequisite(s): MUS 5401 with a "B" or better or instructor permission.

MUS 6403 Topics in Music Education III (2 credits)
Continuation of MUS 6402 Topics in Music Education II. Investigation of specialized topics in music education practice and research, including instructional methods; historical, philosophical, and social foundations; and contemporary issues in music education. Prerequisite(s): MUS 6402 with a "B" or better or instructor permission.

MUS 6602 Music Materials, Literature, and Analysis II (2 credits)
Continuation of MUS 5601 Music Materials, Literature, and Analysis I. Continue to assemble a personal repertoire collection in the form of an Archive and Retrieval System for the purpose of extracting, sequencing, and teaching the elements of music. Develop techniques for researching, collecting, analyzing, classifying, retrieving, and notating musical selections. Music literature should be representative of a multiplicity of style periods and genres including folk, art, and vernacular music from Western and non-Western traditions. Such repertoire should be suitable for the intermediate music learner. Prerequisite(s): MUS 5601 with a "B" or better or instructor permission.

MUS 6603 Music Materials, Literature, and Analysis III (2 credits)
Continuation of MUS 6602 Music Materials, Literature, and Analysis II. Complete the assemblance of a personal repertoire collection in the form of an Archive and Retrieval System for the purpose of extracting, sequencing, and teaching the elements of music. Develop techniques for researching, collecting, analyzing, classifying, retrieving, and notating musical selections. Music literature should be representative of a multiplicity of style periods and genres including folk, art, and vernacular music from Western and non-Western traditions. Such repertoire should be suitable for the advanced music learner. Prerequisite(s): MUS 6602 with a "B" or better or instructor permission.

MUS 6804 Graduate Lesson (1 credit)
Instrumental, vocal, arranging, conducting, composition, or other one-on-one lessons. (May be repeated for credit.)

MUS 6853 Capstone (1 credit)
In cooperation with a faculty advisor, present a recital, thesis, or final 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
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Nursing

Nursing Courses

Physical Education

Physical Education Courses

PHED 5100 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 5110 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 5120 Psychology of Sport and Exercise (2 credits)
This course explores the psychological principles that influence participation, performance, motivation and well-being in sport and exercise contexts. Students examine the cognitive, emotional, and social factors that shape behavior in athletes, exercisers, and teams. Emphasis is placed on applying psychological theories and evidence-based strategies to enhance motivation, performance, group dynamics, and lifelong engagement in physical activity. Practical application is made to teaching, coaching, and exercise leadership in educational, athletic and exercise settings. Prerequisite(s): None.

PHED 5160 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 5300 or consent of instructor.

PHED 5170 Advanced Principles for Strength and Speed Training (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 5300 or consent of instructor.

PHED 5190 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 5200 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.

PHED 5209 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 incldude ethical concerns, decision making, principles of budgeting, budget development, financial statements, spread sheet utilization, and sources of revenue for financing sport.

PHED 5219 Sport Economics (2 credits)
This course will provide the student an understanding of theories and concepts related to economics of sport. Topics covered: 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.

PHED 5250 Teaching Secondary Physical Education (3 credits)
An online methods course designed specifically for physical education teacher licensure candidates in the FasTrack/MAT program. Students utilize national physical education standards, appropriate management protocols and pedagogical best practice to design and deliver physical education lessons for students in grades 6-12. Students design learning and assessment activities that align with current national/state standards and learning outcomes. Prerequisite(s): None

PHED 5300 Physiology of Exercise (3 credits)
This course introduces the physiological principles underlying human movement and physical activity. Students will explore how the body's systems respond and adapt to acute and chronic exercise, with an emphasis on energy systems, cardiovascular and respiratory function, neuromuscular adaptation, and metabolic processes. The course will also examine the role of physical activity in health and disease prevention, and methods of physiological testing, including weekly labs. This course will provide a basic overview of nutrition for both active and sedentary populations and examine Federal physical activity and dietary guidelines. This course aims to prepare students for practical application knowledge, skills and abilities learned in educational, fitness, wellness, or clinical settings. Prerequisite(s): BIOL 1111 or BIOL 3250 or consent of instructor.

PHED 5309 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.

PHED 5400 Curriculum Design and Assessment in Physical Education (3 credits)
This course prepares teacher candidates to design, implement, and evaluate PreK-12 Physical Education curricula that meet the needs of diverse learners and align with standards and various curricular models. Emphasis is placed on developing progressive units, selection and implementation of assessments, analyzing student performance data, and using reflection to guide instructional decisions. Candidates will also explore program organization, administration, advocacy and professional growth opportunities within the field of physical education. Prerequisite(s): None.

PHED 5409 Sport Business Management (3 credits)
Study of the structures and processes of sport organizations, as well as examine principles and concepts as they apply to sport businesses. Topics include definitions; and internal processes such as social responsibility and ethics, organizational behavior and structure, organizational philosophy, mission statements, goals and objectives, chain of command, strategic plans, adapting to change, and so on.

PHED 5449 Socio-Culture and Ethical Issues in Sport (3 credits)
Study of the general relationship between individuals and sport, and sport and society. Examine 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 5500 Inclusive Physical Education (3 credits)
An introduction to the study and practice of teaching physical education to children with disabilities in the public schools. Prerequisite(s): None.

PHED 5501 Orientation to the Online DAPE Program (0 credit)
This course will prepare candidates to begin the online Developmental Adapted Physical Education as a pathway to an add-on licensure. Prerequisite(s): Admittance to DAPE program and MN K-12 Physical Education License.

PHED 5504 Fundamentals of Rhythms and Dance (2 credits)
This course will include fundamentals and materials for teaching various forms of rhythms and dance. Components include effective individual and group instruction, cultural and historical implications, dance steps, foundations, and a variety of traditional, creative and contemporary rhythm and dance forms applicable to the PK-12 setting. Prerequisite(s): None.

PHED 5505 Teaching Elementary Physical Education (2 credits)
This course prepares students to plan, teach, and assess developmentally appropriate physical education programming for students in grades PreK¿5. Emphasis is placed on understanding learner characteristics, fostering fundamental motor skill development (locomotor, nonlocomotor, and manipulative), and creating engaging, inclusive, and safe learning environments. Students will develop and implement elementary-level lessons that incorporate effective instructional strategies, skill progressions, demonstrations, feedback, and class management techniques. Through peer teaching and reflective practice, students will demonstrate competency in movement fundamentals and instructional methods aligned with state and national physical education standards. Prerequisite(s): None.

PHED 5509 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.

PHED 5510 DAPE Introduction to Professional Communities of Practice (3 credits)
DAPE Introduction to Professional Communities of Practice provides candidates with experiences exploring and researching historical laws and professional organizations related to developmental adapted physical education while developing collaborative relationships with other professionals through presentations, research articles, and conference session content materials. Prerequisite(s): PHED 5501.

PHED 5519 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.

PHED 5520 DAPE Foundations of Due Process, Assessment, and Evaluation (3 credits)
DAPE Foundations of Due Process, Assessment, and Evaluation provides candidates with the knowledge necessary to develop, organize, and administer DAPE programs. The candidates will demonstrate competency in referral, assessment, and evaluation supported by DAPE's historical and philosophical foundations, legal bases, the IEP process, technology resources, and an understanding of health-related physical and motor fitness, assistive technology, and adapted equipment. The theoretical research is grounded in Minnesota's K-12 Academic Standards in Physical Education and the Developmental Adapted Physical Education (DAPE) Core Skills and Standards. Students will gain knowledge to assess the fitness, motor, social and behavioral skills of three students, ages 3-22-year-old, with identified disabilities in a school setting to create a team evaluation plan and report. Students develop DAPE programs for elementary, middle, and secondary school levels using assessment information. Programs reflect individual student goals and objectives, as the MNDAPE Operational Guide (2023) outlines. Prerequisite(s): PHED 5510.

PHED 5530 DAPE Community Transition (3 credits)
DAPE Community Transition provides candidates with opportunities to combine content, theory, and research with practical experience in DAPE programming and teaching strategies in a community setting. This course allows students to cultivate and maintain positive, collaborative relationships with students, families, other professionals, and community partners to support student development and the educational process focused on students 18-22 years of age. Prerequisite(s): PHED 5501.

PHED 5540 DAPE Teaching Strategies I (3 credits)
DAPE Teaching Strategies I provide candidates with the knowledge and practical experiences necessary for future teachers to develop individual Education Plans based on typical and atypical motor development patterns and deliver lesson plan content using best-practice instructional strategies, behavioral interventions, safe learning environments, and communication methods with nonverbal students. Candidates will create an Individual Education (IEP) for two students ages 3 to 12th grade DAPE service settings. Prerequisite(s) PHED 5520.

PHED 5550 DAPE Teaching Strategies II (3 credits)
DAPE Teaching Strategies II provide candidates with the knowledge and practical experiences necessary for future teachers to develop individual DAPE lessons based on typical and atypical motor development patterns and deliver lesson plan content using best-practice instructional strategies, behavioral interventions, safe learning environments, and communication methods with nonverbal students. Candidates will create year, unit, and daily lesson plans and teach the lesson plans to students ages 3 to 12th grade in various DAPE service settings. Prerequisite(s): PHED 5540.

PHED 5600 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, target markets, consumer behavior, sponsorship, endorsement, merchandising, fundraising, and mass communication.

PHED 5604 Teaching Games, Sports and Skills-Based Activities (2 credits)
This course prepares students to design, implement, and assess developmentally appropriate instruction in games, sports, and skill-based activities for grades 6¿12. Emphasis is placed on effective planning, management, and instructional strategies that foster skill development, tactical understanding, and positive engagement in physical activity. Students will learn to integrate movement concepts, skill progressions, demonstrations, instructional cues, feedback, and strategies for promoting safe, inclusive, and supportive learning environments. Through micro-teaching, peer feedback, and observation experiences, candidates apply physical education standards in planning, teaching, and assessing student learning in team and skill-based activities. Prerequisite(s): None.

PHED 5605 Teaching Individual Sports and Dual Activities (2 credits)
Methods of teaching and the practice of the skills such as tennis, golf, pickleball, archery, badminton, bowling, and racquetball are the focus. Development of lesson plans, unit plans and application of the teaching methods is emphasized. Prerequisite: Entrance into teacher education program or consent of instructor.

PHED 5607 Teaching Fitness (2 credits)
Methods of teaching and practice in the development of physical fitness, including the development of the health-related fitness components of strength, cardiovascular endurance, muscular endurance, and flexibility through activities such as cross-country skiing, exercise walking, orienteering, geo-caching, cycling, Frisbee golf, Ultimate Frisbee, rock climbing, yoga, and weight training. Prerequisite(s): None.

PHED 5870 Field Experience in Physical Education (1 credit)
A supervised experience in PreK-12 Physical Education settings designed to prepare teacher candidates for professional practice. Student candidates will observe, assist and teach under the guidance of a licensed Physical Education teacher while demonstrating competencies aligned with Minnesota Professional Educator Licensing and Standards Board (PELSB) and National/State PE standards. Emphasis is placed on lesson planning, classroom management, inclusion, professional collaboration, and reflective practice. Required: A minimum of 30 field experience hours per credit.

PHED 6109 Sociology of Sport (3 credits)
Study of the general relationship between sport and society including: (1) the ways sport is linked to other spheres of social life; (2) the organization and behavior patterns that exist within sport settings; (3) the cultural, structural, and situational factors affecting sport and sport experiences; and (4) the social processes related to democratization, collective behavior, and social change.

PHED 6200 Applied Physiology and Nutrition (3 credits)
An examination of current conditioning and nutritional practices in sport. Emphasis will be on reading research related to these practices, as well as developing skills and methods for assessing performance and the effects of conditioning.

PHED 6300 Advanced Principles of Coaching and Administration (3 credits)
A study of advanced principles and administrative duties of coaching. Practical applications of these will include the use of technology and problem solving in case studies.

PHED 6400 Advanced Movement Analysis (3 credits)
A study of the mechanical principles applied to the analysis of human movement including data gathering techniques and interpretations of selected research studies. Lecture and laboratory experiences provided.

PHED 6991 Thesis Topic (1 credit)
Students develop a research question(s) to be used for their thesis proposal. Course content includes methods and practice in literature searches.

PHED 6992 Thesis Proposal Seminar (1 credit)
An extension of PHED 6991, this course has the objective of taking the advisor-approved topic and problem statement and developing a thesis proposal worthy of acceptance by the PEHS graduate faculty. This includes the completion of the first three chapters of the student's thesis.

All-University Courses

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1970, 2970, 3970, 4970 INTERNSHIP
1980, 2980, 3980, 4980 RESEARCH
1990, 2990, 3990, 4990 THESIS

Physics

Physics Courses

PHYS 5300 Thermal and Statistical Physics (3 credits)
Principles of thermodynamics and statistical mechanics. Topics include temperature, the laws of thermodynamics, entropy, heat engines and refrigerators, free energy, and Boltzmann and quantum statistics. Prerequisites: Licensed Physics Teacher or B.S. Degree in Physics.

PHYS 6030 Survey of Electronics (3 credits)
A broad survey of the principles of electronics. Topics include series and parallel circuits, Kirchhoff's rules, capacitors and inductors, and digital ICs. Prerequisites: Licensed Physics Teacher or B.S. Degree in Physics.

PHYS 6040 Survey of Optics (3 credits)
An introduction to modern optics, with emphasis on geometric optics. Wave optics will be introduced sufficiently to enable interpretation of diffraction, interference, and laser effects. Prerequisites: Licensed Physics Teacher or B.S. Degree in Physics.

PHYS 6050 Modern Physics (3 credits)
A qualitative and quantitative overview of physics developments in the 20th century, with an emphasis on special relativity and quantum mechanics. Topics include Lorentz transformations, space-time intervals, relativistic energy and momentum, the Heisenberg uncertainty principle, and solutions to Schrödinger's wave equation involving free particles, quantum harmonic oscillators, and the hydrogen atom. Prerequisites: Licensed Physics Teacher or B.S. Degree in Physics.

All-University Courses

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Political Science

Programs

- Public and Non-Profit Management *cert*

Public and Non-Profit Management *cert*

Required Credits: 18
Required GPA: 3.00

I REQUIRED COURSES

Complete the following courses:

- POL 5200 Minnesota Politics (3 credits)
- POL 5210 Public Administration (3 credits)
- POL 5310 Intersection of Public and Non-Profit Sectors (3 credits)
- POL 5320 Non-Profit Management (3 credits)
- POL 5330 Non-Profit Financial Management (3 credits)

Complete the following course for 3 credits:

- POL 5970 Internship (3 credits)

Political Science Courses

POL 5180 International Law and Organizations (3 credits)
Explores the role of international organizations such as the United Nations, economic alliances, international law, and regional consolidation in international politics.

POL 5200 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.

POL 5210 Public Administration (3 credits)
An introduction to the field of public administration. Emphasis is on the political dimensions of management in the public sector. (Might not be offered every year.)

POL 5310 Intersection of Public and Non-Profit Sectors (3 credits)
Studies federal, state and local agency policy domains and interactions; government agency grant making policies and procedures, ideological and partisan views of the public and non-profit sectors.

POL 5320 Non-Profit Management (3 credits)
This course deepens students' understanding of the role of management and leadership in today's nonprofit sector. Topics covered include: the responsibilities and challenges facing today's non-profit managers, the role of the board of directors, planning, funding and staffing programs, financial accountability, and ethical decision making.

POL 5330 Non-Profit Financial Management (3 credits)
This course examines the critical financial considerations of nonprofit organization, including sources of funds and fundraising, grant writing and management and financial accountability. The students will consider the key financial measures and strategies required to ensure the effectiveness and sustainability of the organization. The course will also consider nonprofit financial statements as indicators of financial health and sound management.

POL 5970 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.

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Psychology

Psychology Courses

PSY 5328 Behavioral and Cognitive Intervention (4 credits)
This course examines cognitive and behavioral theories including applied behavioral analysis. Therapeutic application of behavioral and cognitive/behavioral principles to human problems in various settings is practiced. Prerequisite(s): PSY 1100 and PSY 2227.

PSY 5332 Multicultural Counseling Skills (4 credits)
This course is a practical, skills-based introduction to the development of interpersonal awareness, beginning counseling techniques, and crisis intervention techniques. The purpose of this course is to learn and foster basic counseling and crisis intervention skills. You will learn basic listening skills in the first half of the course, followed by advanced listening and influencing skills in the second half. Prerequisite(s): PSY 1100.

PSY 5337 Group Processes (4 credits)
This course focuses on the examination and practical application of principles and dynamics underlying group behavior from a psychological perspective. By participating as a member of a group, you will gain firsthand knowledge of the group processes that are at play in everyday situations. Group meetings and presentations are aimed toward raising individual consciousness about issues related to collective functioning (e.g., group development, cohesion). Prerequisite(s): PSY 1100 and PSY 3401, or consent of instructor.

PSY 5347 Psychological Measurement (4 credits)
This course is an examination of the theoretical and practical considerations involved in the construction, administration, and interpretation of psychological tests to measure such factors as personality, ability, and pathology. Prerequisite(s): PSY 1100, PSY 3401, PSY 3402.

PSY 5401 Basic Statistics for Research (4 credits)
This is an introductory course into statistics for the behavioral sciences. Students will learn how to collect, organize, analyze, interpret, and present data. The theoretical background behind statistical methods will be provided along with opportunities for practical application. The statistical procedures covered within the course will include measures of central tendency, variability, and shape; t-tests; correlation; linear regression; chi-square tests; and one-way analysis of variance. The use of statistical software to facilitate these procedures will also be covered. Instructional emphasis for the course will be on which statistical procedure is appropriate for given circumstances. Prerequisite(s): Completion of Core Curriculum Goal Area 4.

PSY 5403 Advanced Statistics and Research Design (4 credits)
This is an advanced course on behavioral statistics and research design. Students will have an opportunity to apply what they learned in PSY 3401 Basic Stats and PSY 3402 Research Methods as well as to explore the material in more depth. Topics will include measurement, central tendency, variance, probability, inferential statistics (z-test, t-test, and ANOVA), correlation, regression, chi-square and hypothesis testing. Prerequisite(s): PSY 3401 and PSY 3402, or consent of instructor.

PSY 5408 Human Services Program Management (3 credits)
Theories and techniques of managing human service agencies including planning, administration, evaluation, and grant writing.

PSY 5450 Behavioral Neuroscience (4 credits)
A neurological study of behavior focusing on the neurons, neurotransmitters, neuronal circuits, and basic biology of the nervous system. The beginning of the course will focus on building an understanding of the structure and function of nerve cells, and neuro and hormonal chemical transmission within the nervous system. The rest of the course will focus on how these biological processes lead to normal and pathological behavior. Prerequisite(s): Consent of instructor.

PSY 5459 Sensation 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. Prerequisite: Consent of instructor.

PSY 5467 Personality Theories (4 credits)
Personality psychology is the area of psychology that studies individuals; characteristic patterns of thought, emotion, and behavior, and their underlying psychological mechanisms. This course serves as an introduction to the major theories of personality in psychology. We will discuss the major theories, the people and environments that created them, and critically discuss their strengths and limitations. In addition to learning relevant content, you will practice your skills in literature review and technical writing. PSY 1100, PSY 2217, PSY 3401, and PSY 3402, or consent of instructor.

PSY 5487 History and Systems of Psychology (4 credits)
This course examines contemporary issues and theories in psychology and their historical developments. It is a survey of the philosophical, physiological, methodical, and historical origins of psychology, and how each influenced each other, the field, and science in general over time. The goal of the course is to review the major approaches within the field, looking more in depth at how each emerged and emphasizing the driving rationale and context. Prerequisite(s): Senior standing in the major.

PSY 5587 Advanced Topics in Psychology (2-4 credits)
In-depth study of topics of current interest in psychology. Prerequisite: Grad status in Counseling Psychology or consent of instructor.

PSY 6002 Counseling Research Methods (3 credits)
The basic principles of designing, conducting, and reporting on psychological investigations concerning counseling issues. Prerequisite: PSY 5403.

PSY 6118 Counseling Theory and Practice (4 credits)
This course reviews the theoretical foundations and supporting research for contemporary approaches to counseling. The course includes practice in practical skills for the development of effective counselor-client relationships.

PSY 6119 Psychopathology: Diagnosis and Treatment (3 credits)
This course provides a framework for understanding the range of psychological disorders as presented in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR). Focuses on the description, etiology, assessment, and treatment of the major diagnostic categories based on an investigation of the current empirical literature. Prerequisite: PSY 6118.

PSY 6120 Developmental Psychopathology (3 credits)
This course focuses on how child psychopathology is normal development gone awry. The study of normal development is an essential piece of understanding childhood disturbances. It presents the latest information on infant mental health and diagnostics utilizing the DC: 0-3 and covers appropriate treatment modalities for infants and children. Prerequisites: PSY 6118 and PSY 6119.

PSY 6229 Assessment and Career Development (3 credits)
Overview of theories of career development, career choice, and decision making, emphasizing assessment (abilities, personality, and vocational interests), vocational guidance strategies, and sources of occupational information. Prerequisite: PSY 5347.

PSY 6331 Practicum I: Treatment Planning and Outcomes Assessment (3 credits)
Using simulated sessions, this laboratory course trains students in basic counseling skills. Case conceptualization, treatment planning, outcomes assessment, and effective development of the counselor-client relationship are emphasized. Prerequisite: PSY 6118.

PSY 6332 Practicum II: Counseling, Ethics, and Diversity in Practice (3 credits)
Students engage in 100 hours of supervised practice with clients in community settings. Areas emphasized include diagnostics, clinical intervention, professional ethics, and competencies with diverse client populations. Prerequisites: PSY 6331.

PSY 6337 Group Counseling (3 credits)
An integrated approach to traditional theories and concepts of group counseling and psychotherapy. Emphasizes practical knowledge and techniques for effective group leadership. Prerequisite: Admission to Counseling Psychology M.S. program or special permission of instructor.

PSY 6407 Student Affairs Administration (3 credits)
Introduction to the administration of student affairs in higher education, focusing on the history, philosophical foundations, professional ethics, and standards of the college student development profession. Also studies the functional areas of student affairs and special issues related to those.

PSY 6408 Issues in College Student Development (3 credits)
Examination of theoretical frameworks and perspectives for understanding college student development. Also explores how to apply theory to practice in working with college students, and contemporary college student issues.

PSY 6469 Family Therapy (3 credits)
Introduction to the various theories of the family as a system. Along with the theoretical is a healthy dose of practical applications from the different perspectives, including assessment and therapy. Students conduct case analyses and participate in interviewing simulated families as part of the applied focus of the course. Prerequisite: Admission to Counseling Psychology M.S. program or permission of instructor.

PSY 6777 Professional Ethics: Theory&Practice of Professional Conduct in Diverse Soc (2 credits)
Introduction to theories of ethics, the application of ethical principles in the professional practice of counseling, and specific areas of ethical concern in practicing with diverse populations. Addresses relevant theory, research, and legal decisions regarding specific areas of professional conduct, such as informed consent, confidentiality, duty to warn and protect, dual relationships, value differences between counselor and client, and oppression of minority groups. Students utilize this information by researching an institutional implementation of a professional code of ethics.

PSY 6778 Counseling in a Diverse Society (2 credits)
Introduction to issues of human diversity relevant to counseling professionals. Explores the impact of differences in communication, values, social structures, and sense of personal identity; issues of discrimination, stereotyping, and lack of awareness of differences; research and theory relevant to multicultural practices; institutionalized practices that discriminate based on ethnic, cultural, gender, and physical differences; and institutionalized practices that attempt to decrease such discrimination. Students will apply this information to their own counseling experiences.

PSY 6870 Research Proposal Seminar (1 credit)
This course helps students develop an advisor-approved topic, problem statement, and research proposal based on the problem statement. Students also conduct a relevant literature review. Prerequisite: PSY 6002.

PSY 6888 Personal Growth and Development (1 credit)
Examination of the clinical implications of developmental processes, theories of development, and life transitions that pertain to students' growth as individuals and as counselors within the critical contexts of gender, culture, family relationships, and prior experiences.

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Science

Dr. Bob Quandt (bob.quandt@bemidjistate.edu); chair

Science Courses

SCI 6920 Directed Group Study (2 credits)
When taken as Seminar in Science Education the following description applies: Supervised group study of research and advances in science and science education.

SCI 6980 Research (2 credits)
Research carried out by the student that is based on appropriate methodology and scholarship.

SCI 6990 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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Social Work

Social Work Courses

Sociology

Sociology Courses

Statistics

Statistics Courses

STAT 5000 Capstone in Statistics (3 credits)
Students design and complete a data science project in conjunction with the course professor. The project requires the student¿s accumulated academic experience to solve a challenging problem. The project will focus on real data sets and students will be expected to effectively use oral & written communication, research skills, teamwork, and planning. Prerequisite(s): Senior status with an expected graduation date in the year the course is taken.

STAT 5610 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.

STAT 5620 Applied Regression Analysis (3 credits)
This is a first course in regression analysis with an emphasis on applications. Topics covered include simple and multiple linear regression, hypothesis testing, analysis of residuals, polynomial regression, variable selection and model building, and general linear models. Students will use statistical software

STAT 5631 Probability and Statistics I (4 credits)
Probability of finite sample spaces, discrete and continuous probability distributions, exploratory data analysis, statistical models. Prerequisite: Consent of instructor.

STAT 5632 Probability and Statistics II (3 credits)
Multivariable distributions, sampling distribution theory, estimation, hypothesis testing, regression and correlation. Prerequisite: STAT 5631.

STAT 5660 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.

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Technology, Art and Design -Technology Courses

TADT 5700 Operations Planning and Control (3 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: none.

TADT 5778 Advanced Topics in Technology (3 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. Note: Graduate students will be required to participate in a more rigorous approach to the course.

TADT 5878 Quality Assurance (3 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 6120 Studies In Quality (3 credits)
Topics related to a variety of quality issues. Focuses on the application of quality planning and analysis.

TADT 6240 Advanced Skills in Industrial Technology (1 credit)
Study of and practice in the skills encountered in the area of the student's choice, such as woods, metals, graphic arts, plastics, or other basic industrial technology area.

TADT 6870 Writing and Research in Technology (2 credits)
In-depth writing and research in technology. Assists students in developing their research paper or thesis. Prerequisites: IT 6000, IT 6100, and IT 6117.

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