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Welcome

Publication Date: May 15, 2019

These pages provide a guide to academic requirements, resources and facilities at the University of Wisconsin-Green Bay.

- Students entering in Fall 2019 or Spring 2020 will use this edition **(2019-2020)** to map their academic plans in consultation with faculty and staff advisers.
- Students who are continuing at UW-Green Bay follow the requirements of the annual catalog that was current when they entered. A student may, however, change to a more recent catalog with permission from his or her faculty adviser.

Quick Links:

- Additional campus information can be found on the UW-Green Bay website (http://www.uwgb.edu)
- Please see the UW-Green Bay Mission statement here (http://www.uwgb.edu/univcomm/about-campus/mission.asp)

Graduate Catalog

Dates and Information

This catalog is in effect from May 15, 2019 until it is superseded by a new catalog or if an addendum is noted.

All information contained in this catalog was current as of the date listed above. Some of this information may change through action of the University of Wisconsin System Regents and/or the Wisconsin Legislature. New courses may be added and some listed courses may be altered to remain current with needs.

Current fee and tuition information is available through the Office of the Bursar. Consult the Bursar's website at http://www.uwgb.edu/bursar/ or call the Office of Graduate Studies directly at (920) 465-2123.

Course information for each session is available online in the Schedule of Classes website at http://sis.uwgb.edu/schedule/.

For More Information

Office of Graduate Studies
Cofrin Library 835
University of Wisconsin-Green Bay
2420 Nicolet Dr.
Green Bay, WI 54311-7001
(920) 465-2123

Website: www.uwgb.edu/graduate
E-mail: gradstu@uwgb.edu
Campus information: (920) 465-2000
TDD (Telecommunications Device for the Deaf): (920) 465-2841

Affirmative Action Policy

In compliance with applicable federal and state regulations, the University of Wisconsin-Green Bay is committed to nondiscrimination, equal opportunity, and affirmative action in its educational programs and employment practices. Inquiries concerning the Affirmative Action Policy may be directed to the Human Resources Office, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay WI 54311-7001; (920) 465-2390.

Accommodations

UW-Green Bay is committed to providing accommodations for eligible individuals with documented disabilities as defined by federal and state law. In accordance with Board of Regents Policy (UWS 22.01), sincerely held religious beliefs shall be reasonably accommodated with respect to all examinations and other academic requirements. Questions about these policies should be directed to the Dean of Students, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311-7001; (920) 465-2152.

About UW-Green Bay

- Our Mission (http://www.uwgb.edu/univcomm/about-campus/mission.asp)
- At-a-Glance (http://www.uwgb.edu/univcomm/about-campus/profile.htm)
- Degrees and Accreditation (p. 6)
- Institutional Learning Outcomes (https://www.uwgb.edu/provost/institutional-learning-outcomes)
- State Authorization for Distance Education (p. 8)
- UW-Green Bay In-Depth (http://www.uwgb.edu/univcomm/about-campus/indepth.asp)

Degrees and Accreditation

Graduate Degrees

- Doctorate of Education (Ed.D.)
- Master of Athletic Training (M.A.T.)
- Master of Business Administration (M.B.A.)
- Master of Science (M.S.)

- Master of Science in Nursing (M.S.N.)
- Master of Social Work (M.S.W.)

Accreditation

Founded in 1965, UW-Green Bay is one of 13 degree-granting institutions in the highly respected, tradition-rich University of Wisconsin System.

The University holds a full 10-year accreditation from the
Higher Learning Commission
230 South La Salle Street, Suite 7-500
Chicago, Illinois 60604-1413

For more information, view the UW-Green Bay affiliated institution profile page (http://www.ncahlc.org/?option=com_directory&Action=ShowBasic&instid=2052) on the Higher Learning Commission website.

Individual programs with accreditations or approvals:

- Art (Art Education, Gallery/Museum Practices, Studio Art); Design Arts, National Association of Schools of Art and Design
- Chemistry, American Chemical Society
- Dietetics component of Human Biology, Academy of Nutrition and Dietetics
- Health Information Management and Technology, Commission on Accreditation for Health Informatics and Information Management
- Music, National Association of Schools of Music
- Nursing, Commission on Collegiate Nursing Education
- Social Work, Council on Social Work Education
- Teacher Education, Wisconsin Department of Public Instruction

Administration

University of Wisconsin System

Raymond W. Cross – President

Board of Regents

- Robert Atwell
- John Robert Behling
- José Delgado
- Tony Evers
- Michael M. Grebe
- Eve Hall
- Tim Higgins
- Mike Jones
- Tracey L. Klein
- Regina Millner
- Janice Mueller
- Drew Petersen
- Ryan L. Ring
- Bryan G. Steil
- S. Mark Tyler
- Gerald Whitburn

University of Wisconsin-Green Bay

- Gary L. Miller – Chancellor
- Gregory Davis – Provost and Vice Chancellor for Academic Affairs
- Sheryl Van Gruensven – Vice Chancellor for Business and Finance

State Authorization for Distance Education

Authorization for Distance Education in States Outside Wisconsin

The University of Wisconsin-Green Bay has nine online degree programs: an Associate Degree (AAS), a Bachelor of Business Administration (BBA), a Bachelor of Science Degree in Nursing (BSN), a Bachelor of Science in Health Information Management Technology (BS-HIMT), a Bachelor of Arts in Organizational Leadership (BA-OL), a Bachelor of Applied Studies in Organizational Leadership (BAS-OL), a Master of Science in Data Science (MS-DS), Master of Science in Sustainable Management (MS-SMGT), and Master of Science Degree in Nursing Leadership and Management (MSN).

Distance Learning Education - State Authorization Reciprocity Agreement

Pursuant to Wis. Stats. Ch. 39.85, et. al, the State of Wisconsin is a member of the State Authorization Reciprocity Agreement (SARA) through the Midwestern Higher Education Compact which regulates the manner in which participating institutions may offer distance learning education to students who reside in other states. The University of Wisconsin-Green Bay is a participating institution in MSARA. The terms and conditions of SARA can be found at http://nc-sara.org/content/sara-policies-and-standards. If a student has a complaint that involves distance learning education offered under the terms and conditions of SARA, the student must file a complaint with the institution first to seek resolution. If no resolution is reached, then the student may file a complaint with the Wisconsin Distance Learning Authorization Board (DLAB) through the following State Authorization Reciprocity Complaint Process at the following link: https://www.wisconsin.edu/student-complaints/ or by email to afgp@uwsa.edu. For purposes of this process, a complaint shall be defined as a formal assertion in writing that the terms of this agreement, or of laws, standards or regulations incorporated by the State Authorization Reciprocity Agreements Policies and Standards have been violated by the institution operating under the terms of SARA.

Additional information can be found at http://www.heab.state.wi.us/DLAB/faq.html.

Approved SARA Institutions in Wisconsin

A list of approved SARA Institutions in Wisconsin is available at https://www.nc-sara.org/states/WI

National Council for State Authorization Reciprocity Agreements Complaint Process

Pursuant to the United States Department of Education's Program Integrity Rule, the University of Wisconsin-Green Bay is required to provide all prospective and current students with the contact information of the state agency or agencies that handle complaints against postsecondary education institutions offering distance learning or correspondence education within that state. Students are encouraged to utilize UW-Green Bay's internal complaint or review policies and procedures through the Office of Student Affairs prior to filing a complaint with a state agency or agencies.

For a list of contact information to which a student may file a complaint for each state, visit the State Authorization Resources and Directory (http://www.sheeo.org/stateauth/stateauth-home.htm) page on www.sheeo.org (http://www.sheeo.org) and click "**Student Complaint Process, by state**" to download the most recent PDF.

Colleges

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College of Arts, Humanities and Social Sciences (p. 9)

College of Health, Education and Social Welfare (p. 9)

College of Science, Engineering and Technology (p. 9)

Austin E. Cofrin School of Business

The Cofrin School of Business is a community of teachers and learners dedicated to the exchange of knowledge, skills, and values that enables them to serve their organizations and communities as engaged professionals.

We achieve this mission through the following actions:

- Providing a transformative business education that prepares learners to ethically and critically address complex issues and deliver innovative and sustainable solutions.
- Developing and sustaining partnerships that facilitate the exchange of knowledge and resources with key stakeholders, including students, alumni, faculty, businesses, and other organizations and individuals that comprise the community.
- Developing and retaining faculty members who continually seek to enhance their teaching and service through reflective practice and who participate in high quality and impactful scholarship that incorporates discovery, application, and teaching and learning.

- Master of Science in Data Science (p. 41)
- Master of Science in Management (p. 58)

College of Arts, Humanities and Social Sciences

The College of Arts, Humanities and Social Sciences offers over thirty interdisciplinary and disciplinary majors and minors in the visual and performing arts, humanities, communication, computer and information sciences, and social sciences. Our faculty takes pride in their engagement with students through traditional, online and blended delivery methods. We create unique communities of learners that engage critically and creatively around issues, problems, and solutions. In addition, the College supports community engagement through centers that sponsor speaker series, outreach events, and community-based research. Central to our mission is the promotion of problem-based, engaged learning through close relationships with our students to ensure successful, fulfilling careers and lives. The College of Arts, Humanities and Social Sciences develops students who:

- Are critical and creative thinkers
- Engage in high impact, hands-on learning experiences
- Learn in a diverse and inclusive environment in order to enable success and understand a global, multicultural world
- Develop an understanding of civic and global citizenship and promote this through our community connections
- Can adapt to change and promote improvement

- Emergency Management, Planning and Administration (p. 68)

College of Health, Education and Social Welfare

- The Professional Program in Education (http://www.uwgb.edu/education) offers specialization options ranging from teaching Early Childhood to Adolescence. Each member of the program will complete student teaching where they will have hands-on learning on how to be an effective leader in the classroom.
- The Professional Program in Nursing (http://www.uwgb.edu/nursing) provides an on-line learning environment where Registered Nurses can earn their Bachelor of Science in Nursing, and where Registered Nurses who currently hold a BSN can earn their Masters of Science in Nursing Leadership and Management.
- The Professional Programs in Social Work (http://www.uwgb.edu/socwork) offers both a Bachelor's degree in Social Work and a Masters of Social Work. Students will also complete field experience for the highest level of learning before they graduate.

- Doctorate of Education, EdD (p. 30)
- Master of Science in Applied Leadership for Teaching and Learning (p. 38)
- Master of Science in Health and Wellness Management (p. 57)
- Master of Science in Nursing Leadership and Management (p. 61)
- Master of Social Work (p. 65)

College of Science, Engineering and Technology

The College of Science, Engineering and Technology offers a diversity of majors and minors in biology, human biology, chemistry, environmental science, geoscience, mathematics, physics, environmental engineering technology, electrical engineering technology, and mechanical engineering technology, as well as a **new major in mechanical engineering**. Faculty in the College are accomplished teachers and scholars who provide high quality instruction and hands-on teaching and research experiences to students in laboratory and field settings. The College has consistently obtained funding from local, state and federal sources to support campus and community based research projects. The College supports two seminar series (Natural and Applied Science and Human Biology) and several student organizations, while also providing numerous named scholarships for students. The state-of-the art laboratory and research facilities include a scanning electron microscope and human cadavers. In addition to the laboratory and research facilities associated with Human Biology and Natural and Applied Sciences, the College includes the Cofrin Center for Biodiversity and the Environmental Management and Business Institute (EMBI), which both provide research and internship opportunities. The College has a partnership with the Medical College of Wisconsin, with faculty from Human Biology providing instruction in the Medical College of Wisconsin curriculum.

Students in the College of Science and Technology will have the opportunity to:

- Gain important knowledge and skills pertinent to their chosen field of study
- Develop critical thinking, problem solving, and communication skills
- Engage in hands-on teaching and research experiences
- Utilize modern laboratories and equipment
- Learn in an interdisciplinary environment that promotes diversity and inclusion
- Become a complete student and citizen by participating in internships, travel courses, and other extracurricular activities
- Fully prepare themselves for their next professional ambition – whether it be employment, further credentialing, or graduate/clinical education.

- Master of Athletic Training (p. 33)
- Master of Science in Applied Biotechnology (p. 36)
- Master of Science in Environmental Science and Policy (p. 42)
- Master of Science in Sustainable Management (p. 64)

General Information

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Admissions

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Admission Process

The admission process is initiated by submitting the completed application form to the Office of Graduate Studies at www.uwgb.edu/graduate/future/. The office notifies applicants whose files are incomplete. When the file is complete, official transcripts of previous undergraduate work and any graduate courses are examined and factors affecting either admission to the graduate program or acceptance of transfer credits are noted.

The file is reviewed by the Admissions Committee of the program specified on the application form. The Associate Vice Chancellor for Academic Affairs and Director of Graduate Studies, on the advice of the committee, either admits, provisionally admits, or denies the applicant admission.

If an applicant is denied admission, reasons for the denial will be provided upon request from the applicant to the program chair, along with an explanation of available options. Students denied admission may request reconsideration by writing to the Associate Vice Chancellor for Academic Affairs and Director of Graduate Studies. The request should include a rationale for reconsideration. Applicants who have been denied admission may reapply after the lapse of one semester.

Letter of Admission

A letter of acceptance is sent to each student upon admission to the graduate program. This information appears on the letter:

Student Number

The permanent student number of each applicant is a University-assigned identification number.

Starting Term

Indicates spring or fall term admission.

Type of Entry

Indicates the graduate degree program.

Tuition Status

Indicates resident or nonresident status.

Conditions

Indicates admission status such as provisional admission.

Graduate Special Student (GSP)

Persons holding baccalaureate degrees or higher who wish to enroll in graduate courses at UW-Green Bay but who do not wish to pursue a graduate degree or participate in the graduate program may enroll as a special student.

Graduate credit will be awarded provided the student registers in graduate-level courses as a graduate special student and pays graduate fees. Credits for which neither graduate fees were paid nor graduate credit awarded cannot be retroactively converted to graduate credits. Graduate special students are not eligible for Independent Study, Internships, or Culminating Experiences (e.g. thesis or capstone projects). A graduate special student who decides to pursue a UW-Green Bay graduate degree must submit an application form to enter the degree program. Often the credits earned as a graduate special student may be applied toward the M.S. degree; however, this is not guaranteed.

Graduate Degree Residency Requirement

A minimum of 50% of graduate credits must be earned in residence at UW-Green Bay.

Admission with Advanced Standing

All graduate course work completed at UW-Green Bay or at other graduate schools prior to admission to the M.S. degree program is evaluated by the student's adviser or graduate faculty committee. A maximum of 15 credits may be accepted from other institutions. A maximum of 15 credits may be earned as a graduate special student (GSP classification) at UW-Green Bay prior to matriculation into the degree program.

Credit by examination or for prior learning may not be used to meet degree requirements. Prior learning and experience may be applicable to demonstrate competencies for admission or to meet course requisites. More information is available on the Institution Assessment website (http://www.uwgb.edu/oira) about Credit for Prior Learning requirements and options.

Conditional Admission

Conditional Admission is limited to international students who meet Full Admission criteria, but still require evidence of language competency. Students must be admitted to an approved language program, with the Office of International Education working with students to coordinate options and document program completion to the Office of Graduate Studies. Conditional Admission is a promise to admit a student to a graduate program upon satisfactory completion of an approved language program.

Provisional Admission

Students who do not meet the 3.0 gpa requirement or who have other deficiencies may be admitted on a provisional basis. Provisionally admitted students who receive at least a B grade in courses totaling nine credits of graduate work after acceptance will be fully admitted.

Transfer Credit Policy

Transfer credit is defined as credit earned at an institution other than UW-Green Bay that is to be applied to UW-Green Bay graduate degree requirements. Acceptance of transfer credits is determined by a credit review by the Office of Graduate Studies and development of a program plan which includes the credits as part of a coherent program of study. Acceptance of the transfer credits is subject to review and approval by the program chair and the Associate Vice Chancellor for Academic Affairs and Director of Graduate Studies. (see academic transfer policy) (p. 26)

Use of Special Petition

Requirements sometimes may be modified or adapted to take into account a student's special educational or program needs. A request to modify a graduate program academic requirement is submitted to the Associate Vice Chancellor for Academic Affairs and Director of Graduate Studies on a special petition form. The forms are available online at https://www.uwgb.edu/graduate/students/forms/. If a change in a program requirement is being requested, the petition should include a statement from the major professor or graduate adviser and the graduate program chair explaining the change. Prior coursework can also be considered and substituted to meet degree requirements via approval of the faculty representative who can approve substitutions.

Active/Inactive Status

Matriculated students are considered inactive if they have not enrolled for four or more consecutive semesters without notifying the Office of Graduate Studies by filing a request to leave. They must be formally readmitted before they can re-enroll in classes. Inactive students required to reapply must

meet the admission standards in effect at the time of readmission and are expected to meet degree requirements in effect at that time as well. The application fee does not apply to students seeking readmission after a period of inactivity.

Admission Standards

Admission to a UW-Green Bay graduate degree program is a decision by the Director of Graduate Studies upon recommendation from the faculty for the specific program identified by the student on the application form. The decision is a judgment of the student's suitability to succeed in graduate degree work at UW-Green Bay, based on educational background and educational objectives.

While UW-Green Bay has a basic admission policy for graduate study, a philosophy of personalized admission assures that each applicant is considered individually. Entry requirements for full admission include:

- A baccalaureate degree from an accredited institution.
- A 3.0 grade point average (gpa), measured on a 4.0 scale. Students from schools not using a grading system will be evaluated on an individual basis.
- Official transcripts from all postsecondary institutions of higher learning.
- Graduate Application Fee. A non-refundable application fee is required of anyone applying for admission as a new graduate student at UW-Green Bay. The fee is currently $56. The application fee is subject to change based on the actions of the University of Wisconsin System.
- Additional prerequisites for entrance to the specific program chosen.

Students who do not meet the 3.0 gpa requirement or who have other deficiencies may be admitted on a provisional basis. Provisionally admitted students who receive at least a B grade in courses totaling nine credits of graduate work after acceptance will be fully admitted.

International students must demonstrate English proficiency by meeting the standards currently accepted. A full list of acceptable methods is available by contacting the Office of Graduate Studies. Applicants must also provide an Evaluation of Foreign Educational Credentials from Educational Credential Evaluators (ECE), World Education Services (WES), or another similar evaluation service. International applicants who meet English proficiency and academic admission requirements will be admitted, but also must show official evidence of financial resources adequate to provide for their educational expenses before an I-20 form will be provided.

Application

The admission process is initiated by submitting the completed application form to the Office of Graduate Studies. The office notifies applicants whose files are incomplete. When the file is complete, transcripts of previous undergraduate work and any graduate courses are examined and factors affecting either admission to the graduate program or acceptance of transfer credits are noted.

The file is reviewed by the Admissions Committee of the program specified on the application form. The Director of Graduate Studies, on the advice of the committee, either admits, provisionally admits, or denies the applicant admission.

Students denied admission may request reconsideration by writing to the Director of Graduate Studies. The request should include a rationale for reconsideration. Applicants who have been denied admission may reapply for a subsequent semester.

Letter of Admission

A letter of acceptance is sent to each student upon admission to the graduate program. This information appears on the letter:

Student Number

The permanent student number of each applicant is a University-assigned identification number.

Starting Term

Indicates fall, January, spring, or summer term admission.

Type of Entry

Indicates the graduate degree program.

Tuition Status

Indicates resident or nonresident status.

Conditions

Indicates admission status such as provisional admission.

Graduate Special Student (GSP)

Persons holding baccalaureate degrees or higher who wish to enroll in graduate courses at UW-Green Bay but who do not wish to pursue a graduate degree or participate in the graduate program may enroll as a special student.

Graduate credit will be awarded provided the student registers in graduate-level courses as a graduate special student and pays graduate fees. Credits for which neither graduate fees were paid nor graduate credit awarded cannot be retroactively converted to graduate credits. Graduate special students are not eligible for Independent Study, Internships, or Culminating Experiences (e.g. thesis or capstone projects). A graduate special student who decides to pursue a UW-Green Bay graduate degree must submit an application form to enter the degree program. Often the credits earned as a graduate special student may be applied toward the M.S. degree; however, this is not guaranteed.

Graduate Degree Residency Requirement

A minimum of 50% of a program's graduate credits must be earned in residence at UW-Green Bay.

Admission With Advanced Standing

Graduate course work completed at UW-Green Bay or at other accredited graduate schools prior to admission to a UWGB graduate degree program is evaluated by the student's adviser or graduate faculty committee. No more than 50% of credits may be accepted from other institutions. A maximum of 50% of a program's credits may be earned as a graduate special student (GSP classification) at UW-Green Bay prior to matriculation into the degree program.

Transfer Credit Policy

Transfer credit is defined as credit earned at an institution other than UW-Green Bay that is to be applied to UW-Green Bay graduate degree requirements. Acceptance of transfer credits is determined by a credit review by the Registrar's Office and development of a program plan which includes the credits as part of a coherent program of study. Acceptance of the transfer credits is subject to review and approval by the Director of Graduate Studies. General guidelines for evaluating potential transfer credits are:

- No more than 50% of a program's required credits of graduate work may be accepted as transfer credits.
- A letter grade of A or B must be earned in each course transferred.
- The courses must contribute to a coherent program of study.
- The institution granting the credit must be regionally accredited at the master's degree level or higher.
- The credits must be reasonably recent, usually earned within the five years prior to admission.
- Credits earned through extension courses offered or sponsored by universities outside of the state of Wisconsin will be subject to particular scrutiny.
- Credits earned under conditions that make them unacceptable toward a degree at the institution where the credits were earned will not be accepted by UW-Green Bay.

Use of Special Petition

Requirements sometimes may be modified or adapted to take into account a student's special educational or program needs. A request to waive or modify a graduate program academic requirement is submitted to the Associate Provost for Academic Affairs and Director of Graduate Studies on a special petition form. The forms are available online at www.uwgb.edu/graduate/forms. If a change in a program requirement is being requested, the petition should include a statement from the major professor or graduate adviser and the graduate program chair explaining the change.

Active/Inactive Status

Matriculated students are considered inactive if they have not enrolled for four or more consecutive semesters without notifying the Office of Graduate Studies by filing a request to leave. They must be formally readmitted before they can re-enroll in classes. Inactive students required to reapply must meet the admission standards in effect at the time of readmission and are expected to meet degree requirements in effect at that time as well. The application fee does not apply to students seeking readmission after a period of inactivity.

Graduate Assistantships

Graduate assistantships are available on a competitive basis to students in the Environmental Science and Policy program. Students receiving assistantships are expected to devote approximately 20 hours per week performing assigned duties. Typical duties are serving as a classroom assistant in a laboratory or discussion section, assisting in a center or institute, or serving as a research assistant. Student applicants will be evaluated for assistantships during the normal admission process; no additional application steps are required.

To be eligible for graduate assistantships students must:

- be fully admitted to the M.S. degree program;
- be enrolled for a minimum of six credits of course work each semester and no fewer than 15 credits during the entire academic year;
- maintain at least a 3.0 grade point average for graduate courses.

Academic Rules and Regulations

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Absence and Attendance Policy

Absence and Attendance Policies

Class Attendance

A student is expected to attend all class sessions. Failure to attend class does not alter academic or financial obligations. If, for any reason, a student is unable to attend classes during the first week of the semester, he or she is responsible for notifying the instructor(s), in writing, of the reason for nonattendance and indicate intentions to complete the course. Failure to attend classes during the first week of the semester may result in an administrative drop by the instructor. Registered students are obligated to pay all fees and penalties as listed on the fee schedule.

Other Attendance Policies

- Absence due to inclement weather. For more information, see Attendance and the Weather (http://www.uwgb.edu/provost/policies/storm.asp).
- Absence for funerals or a death in the family. For more information, see Bereavement Policy (http://www.uwgb.edu/dean-of-students/assistance-advocacy/bereavement-policy.asp).
- Student Religious Beliefs: In accordance with Board of Regents Policy (UWS 22.01), sincerely held religious beliefs shall be reasonably accommodated with respect to all examinations and other academic requirements. Questions should be directed to the Dean of Students (dosmail@uwgb.edu); (920) 465-2152
- Absence due to Disability: UW-Green Bay is committed to providing accommodations for eligible individuals with documented disabilities as defined by federal and state law. Questions should be directed to Disability Services (http://www.uwgb.edu/ds) (920) 465-2481

Academic Forgiveness

Academic Forgiveness is not available at the graduate level.

Academic Standing

All students are expected to maintain certain standards of academic achievement while enrolled at the University. The University is concerned about students whose academic achievements indicate that they are not meeting the expectations of their instructors, or who are experiencing other problems that may be interfering with their studies.

- A 3.0 or better end-of-term cumulative GPA results in continuing **Good Standing**.
- A 2.0 to 2.999 end-of-term cumulative GPA results in **Academic Probation** status.
- A 1.999 or less end-of-term cumulative GPA results in **Academic Suspension** status.

Action on part-time students is withheld until at least nine credits are attempted at UW-Green Bay.

Moving from Probation to Good Standing or Suspension

- A student on Probation who earns a 3.0 or better end-of-term cumulative GPA returns to Good Standing.
- A student on Probation carrying a 2.999 or less end-of-term cumulative GPA after attempting a cumulative total of 15 or more credits at UW-Green Bay has academic Suspension status.

Suspension Review Process

- At the time a student earns academic Suspension, a graduate committee identified by each program reviews the student's record up to that time and recommends for Continued Enrollment or for academic Suspension status to take effect. For thesis/dissertation-based programs, the review committee must consist of the student's graduate committee plus the program chair. In situations in which a student-specific graduate committee does not exist, then the program must form a committee consisting of the program chair, the student's advisor, and a minimum of one additional member from the programs executive committee. All committees must contain a minimum of three faculty.

Applying to Graduate

Students who are close to completing their degree should apply to graduate the semester before they plan to finish.

The suggested timeline to follow is:

- May 1 for Fall or January semester graduation
- December 1 for Spring semester graduation
- February 1 for Summer semester graduation.

Students should use the ***Apply for Graduation*** drop-down link in the Student Information System (SIS) to apply for the degree to be conferred.

The commencement ceremony signup is a separate step, which can be completed by clicking on the link found at the end of the online Graduation Application form. If you miss this step initially, simply go back to SIS later and use the ***Edit Commencement Info*** drop-down link to complete the appropriate fields.

Students may walk in one of two ceremonies.

- December (for fall or January graduates who complete courses in December or in January)
- May (for spring or summer graduates who complete courses in May for spring, or any session in June, July or August in summer).

Degree

The degree awarded and reflected on the diploma will be a Doctorate of Education (Ed.D.), Master of Athletic Training (M.A.T.), Master of Business Administration (M.B.A.), Master of Science (M.S.), Master of Science inNursing (M.S.N.), or Master of Social Work (M.S.W.). The area of study for either degree is reflected on the academic transcript including Applied Leadership for Teaching & Learning, Applied Biotechnology, Athletic Training, Business Administration, Data Science, Environmental Science and Policy, First Nations Education, Health and Wellness Management, Management, Nursing Leadership and Management, Social Work, or Sustainable Management

- Degrees are posted to a record (academic transcript) as soon as all grades are awarded, the culminating graduate experience is finished and all degree requirements are completed.
- Diplomas are printed and mailed approximately four to six weeks after the official semester ends.

Credits Required

A minimum of 30-61 credits, depending upon the chosen program, are required for completion of a UW-Green Bay graduate degree.

Culminating Graduate Experience

Students must complete a Thesis/Capstone level course in order to be awarded a Graduate Degree. Once the student enrolls in this course the University of Wisconsin-Green Bay requires continuous enrollment until it's completion. Details on specific courses for each program are provided within the Graduate Catalog under Courses and Related Policies.

Grades

- All courses and assigned studies are graded on a 4.0 scale. A cumulative grade point average of at least 3.0 is required to earn the Ed.D. or M.S. degree.
- Thesis credits are given a grade of either “P” or “NC.” In a student’s final semester, a grade of “PR” can be assigned at the time grades are due if the student has not completed the thesis defense by the end of the semester. This grade is replaced with either a “P” or “NC” grade when the student completes the defense. A passing grade (P) must be achieved in order to graduate.
- Students are expected to maintain a cumulative grade point average of at least 3.0. Students who fail to maintain this average are subject to probation and or suspension as specified in the Graduate Academic Rules and Regulations.

Honors designations are not awarded at the Graduate level.

Time Limit

- Matriculated graduate students must complete all requirements for their graduate degree within five years and with continuous enrollment.
- This time period begins with the first day of the first term of enrollment as a graduate degree-seeking student.

Calendars

Official University Calendars

- **Academic Calendar:** Official calendar of activity for the school year (term dates, registration dates, breaks and holidays, etc.)
- **Administrative Calendar:** Calendar relating to curricular change, timetable, and personnel evaluations
- **Registration Calendars (Fall/January/Spring/Summer):** Calendar of specific registration/academic action deadlines (add/drop/withdrawals, late registration, and fee implications of selected academic actions)
- **Final Exam Calendar:** Final exam schedule for the semester in session

Cancellation

Cancellation of admission or enrollment *prior to the first day of the term.*

- If a student cancels their admission or enrollment, they are not eligible to re-enroll in the subsequent semester.
- A student who cancels must re-apply for admission in a subsequent term.

Course Adds

Add one or more courses to a schedule and/or change course load.

Course Adds during the First Two Weeks[1] (*Semester-long courses at UW-Green Bay)*

Enrolled students are able to add individual regular, 14-week semester-long courses during the first two weeks of the fall/spring semester with no academic grade assigned and no financial penalty[2]. Please check the Registration Calendar (http://www.uwgb.edu/registrar/calendar/registration) for these deadline dates.

Late Course Adds (*Semester-long courses at UW-Green Bay)*

- *Week 3 to last day of classes*: Students must submit a faculty-approved Late Add form. Students will be assessed a late add fee for each course.
- *Students are not able late add courses once final examinations have begun for the semester.*

Notes:

1. Summer sessions, January Interim and courses less than 14 weeks have shorter add deadlines. Please check the Registration Calendar (http://www.uwgb.edu/registrar/calendar) for summer or January interim course deadlines.
2. Collaborative programs offered at UW-Green Bay have different start and end dates of the semester which means the add deadlines or financial deadlines may differ than described above.

[1] A week is defined as 7 calendar days, beginning on the first day of a term or session, for the purposes of adds, drops or withdrawal deadlines.

[2] Tuition refunds and/or withdrawal fees vary by length of course and date of transaction. Please consult the Fee deadlines for the appropriate semester on the Bursar website for more details (http://www.uwgb.edu/bursar/term-deadline-calendar). Please note that financial deadlines are different from academic deadlines.

Course Drops

Remove one or more courses from a schedule but remained enrolled in at least one credit.

Course Drops during the First Two Weeks [1] *(Semester-long courses at UW-Green Bay)*

Enrolled students are able to drop *individual* regular 14-week semester-long courses during the first two weeks of the fall/spring semester with no academic grade assigned or financial penalty[2]. Students in courses that are less than 14 weeks in duration can drop the course with no grade assigned, during the 1st week.

Late Drop (*Semester-long courses at UW-Green Bay)*

- *Week 3 to week 6:* Students can drop classes on their own and a DR (drop grade) will appear on the transcript.
- *Week 7 to the end of the term:* Drops are not allowed. Students must submit a Late Drop Petition (p. 24) which must be approved by the Enrollment Review Committee. Petitions are only approved for extenuating circumstances with supporting documentation. If a late drop is granted, students remain responsible for the tuition and fees assessed for the course as they received instruction and held a seat in the course. A DR (drop grade) will appear on the transcript.

Late Drop (Courses less than 14 weeks in duration)

- From the start of week two until half the course duration (50%), a student may drop the course, and a DR (drop grade) will appear on the transcript.

- Following one day after half the course duration, a student must submit a Late Drop Petition (p. 24) which must be approved by the Enrollment Review Committee. Petitions are only approved for extenuating circumstances with supporting documentation. If a late drop is granted, students remain responsible for the tuition and fees assessed for the course as they received instruction and held a seat in the course.

Financial adjustments for course drops vary based on the effect on course load and timing of the drop. Consult the Bursar fee information for these dates.

1 A week is defined as 7 calendar days, beginning on the first day of a term or session, for the purposes of adds, drops or withdrawal deadlines.

2 Tuition refunds and/or withdrawal fees vary by length of course and date of transaction. Please consult the Fee deadlines for the appropriate semester on the Bursar website for more details (http://www.uwgb.edu/bursar/term-deadline-calendar). Please note that financial deadlines are different from academic deadlines.

Course Requisites

Prerequisites:

Requisites indicate the minimum level of proficiency or background knowledge needed to successfully achieve course objectives. Requisites are enforced, included in the course descriptions and are indicated in the Schedule of Classes by the designation P.

Recommended courses:

Recommended courses are typically lower-level courses that students are advised to complete prior to enrolling in a course. They are advisory (i.e., not enforced), so students may enroll without completing prior recommended courses, but they do so at their own risk. Recommended prior courses are indicated in the course descriptions by the designation REC.

Course registration restrictions (other than requisites):

Course can have other restrictions preventing enrollment.

Closed course:

no seats are available

Reserves:

seats are held for a certain period of time for students in a certain class level, student group or major/minor

Time conflict:

two courses delivered at the same time

Consent:

student must gain instructor or department consent to enroll

Auditions

In performance courses requiring an audition, students are responsible for making their own arrangements for the audition before classes begin.

Credit Hour

A credit hour is an amount of work represented in intended student learning outcomes and verified by evidence of student achievement that is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fourteen weeks for one semester, or the equivalent amount of work over a different amount of time, or the equivalent amount of work for other activities as established by the University including but not limited to graduate work, internships, practica, studio work, and other academic work leading toward the awarding of credit hours.

Credit Load

Credit load is the total amount of credits a student is enrolled in at a given time in a term, for example, after initial registration or at the end of a semester. All credits, regardless of grading status, count toward credit load for certain purposes.

Maximum Credit Load

A student in good standing may register for a maximum of 15 credits during any regular session of fall, spring semester and may register for a maximum of six credits in the January Interim semester, no exceptions. In summer there is no credit plateau for graduate students, a student is still limited to a maximum of 15 graduate credits in summer and pays tuition/fees per each credit of enrollment.

A student who wants to enroll in more than 15 credits in fall, spring or summer must obtain written approval in advance from their faculty or academic adviser, using the credit overload petition before the first day of classes. Once approved, course(s) enrollment can be completed. Additional tuition and fees will apply. No overload petitions are accepted for the January semester.

Minimum Credit Load

A specific minimum number of credits (excluding audit credits) that a student must carry to be eligible for certain programs and benefits for financial aid or veteran's benefits.

Cross-Listed Courses

Graduate students may register without special permission for graduate-level courses that are offered at the same day/time as courses at the undergraduate level. Courses are numbered XXX-500 to XXX-595 and XXX-600 to XXX-695 and listed in the graduate section of the Schedule of Classes.

Cumulative Grade Point Average (GPA)

Grade point average for all completed terms at UW-Green Bay. It is calculated by dividing the cumulative total grade points by the cumulative total grade point credits earned. Attempted courses where an F grade is received are also included in grade point calculations unless successfully repeated.

Degree Residency Requirement

- The minimum credit residency requirement for a graduate degree is 50% of required credits.
- One half of the program requirements for any graduate degree must be taken at the 700-level or higher.

Note: Credits earned at the undergraduate and graduate level through the Credit for Prior Learning process (e.g., standardized examinations, challenge exams, portfolio development) may not be used to satisfy UW-Green Bay Degree Residency Requirements for degrees, majors, minors, or certificates.

Dissertation/Thesis/Capstone/Professional Project Course Enrollment

Students must complete a culminating project, such as a Dissertation, Thesis, Capstone, or Professional Project course in order to be awarded a graduate degree. Once the student enrolls in this course the University of Wisconsin-Green Bay requires continuous enrollment until it's completion.

While a student may complete the course in the semester in which they initially enroll, it is anticipated that most student will take one to three semesters to complete the work associated with the course. Should the student complete the course in the semester of enrollment, a grade will be awarded and the student permitted to graduate. For students who take additional semesters they will receive a grade of "PR" which indicates work "In Progress";

students enrolled in collaborative graduate programs should confirm this practice with their chair. Further, the student will be required to either enroll in GRADUATE 693 for zero credit each semester they continue work on the final course, or enroll for additional Thesis/Capstone level course credit, or other graduate course credit. There will be a $200 fee charged for GRADUATE 693 each semester.

The courses designated as Dissertation/Thesis/Capstone/Professional Project courses in each graduate degree program are:

- ABT 790 for Applied Biotechnology
- AT 790 for Athletic Training
- DS 785 for Data Science
- EDUC 799 for Applied Leadership for Teaching & Learning
- ENV S&P 799 for Environmental Science & Policy
- FNED 899 Dissertation Project
- HWM 790 for Health & Wellness Management
- MBA 712 for Business Administration
- MGMT 796 for Management
- NURSING 790 for Nursing
- SMGT 792 for Sustainable Management
- SOC WORK 719 for Social Work

Educational Status

Status impacts the admissions process and financial aid eligibility:

Degree-Seeking

A degree-seeking student is enrolled in a program of study and plans to earn a degree at the graduate level.

Special

A special student is not seeking a degree, but taking courses.

Enrollment outside of Degree Sought

Students who are pursuing one degree but seek enrollment in another graduate level program should contact the Graduate Studies Office or Program Advisor, as specific permission may be needed for enrollment. UW Green Bay has collaborative graduate programs of study in Applied Biotechnology, Data Science, Health and Wellness Management, and Sustainable Management. A permission number is needed for enrollment and tuition and fees will differ because of the collaboration of several UW System institutions.

Enrollment Status (full time, part time)

Enrollment status is based on number of credits enrolled. Status impacts financial aid eligibility and tuition/fees.

Full Time	9 credits*
Half Time	6-8 credits
Less than Half Time	1-4 credits

* Full-time status for Doctoral students enrolled in cohort-based programs requiring fall, spring, and summer enrollment is 6 credits per term.

Experimental Courses

From time to time, graduate faculty may offer courses in response to special demand, to address current issues, or to make use of special resources offered by visiting faculty. These are offered once on an experimental basis, and numbered 783 with a specific topic or 783X (alpha character) which is one unique course. These courses may later become regular course offerings. Courses offered with the 783X number may not be counted as part of the graduate core requirement.

Grade Point Average (GPA)

A numerical value derived from dividing the number of grade points earned by the number of credits attempted on a regular grade basis. P-NC, incomplete, grades removed by repeat and audit grades and transfer credits have no effect on grade point average. Only those courses attempted at

UW-Green Bay are included in a student's grade point average. Transfer grades may be used to compute eligibility for admission to certain programs/majors.

Example of GPA for a Semester

Course	Grade	Credits	Grade Points
SOC WORK 702	A	3	12
MGMT 796	BC	4	10
SOC WORK 703	B	4	12
SOC WORK 704	b	3	09
Total		14	43

(An A is equal to 4 grade points, a B is equal to 3, and so forth. Three credits earning an A grade equals 12 points.)
43 divided by 14 equals 3.07 grade point average.

Grading Policy

Final Grades

Final grades are posted to the student's transcript and may be accessed via the Student Information System (SIS).

Grades

Every student receives a grade from the instructor of a course at the end of a semester or session. **Instructors must enter grades on the course roster in SIS for processing by the Registrar's Office no later than 96 hours or four days after the final examination or last date of that individual course.** If an instructor finds they have made a grade error or missed entering a grade, the faculty member can complete a grade change in SIS, using the grading access they are provided, up through the end of the subsequent semester. **Please contact the Registrar's office with any grading issues or questions as needed.**

**Failure to add grades in a timely manner delays processing of academic standing, conducting satisfactory academic progress assessment, degree conferral, issuing diplomas and/or transcript documents, reporting of accurate enrollment and degree data to various entities for compliance and can prevent students from registering for subsequent courses.*

Grade Changes

Missing (N) grades must be updated and submitted via SIS, for permanent change to the student's academic record no later than the last day of classes in the following semester.

Incomplete (I) grades, faculty must submit an incomplete grade form to the Registrar's office documenting outstanding course work, deadline for completion. This grade change should be made no later than the last day of classes in the following semester. If the student does not meet the deadline identified, the grade will lapse to an F = fail grade for that semester.

Grade Changes AFTER two semesters

Grade changes considered after one subsequent semester must be requested to and approved by the College Dean from the faculty member. The approval should include student name, semester, course taken, new grade to the Registrar's office for an update to be made to the academic record. Grade change requests will not be accepted without Dean approval.

Grade Appeals

Any student who is dissatisfied and wishes to appeal a particular course grade, must first contact the instructor who issued the grade. If the student is still dissatisfied, he or she may appeal further to the department chair. The chairperson, in turn, consults with the course instructor. If a student wishes to appeal further, he or she should contact the appropriate academic dean who will consult with the instructor and the appropriate chairperson.

A faculty member may change the grade after appeal and can do so in SIS up through the end of the subsequent semester.

Other Grade Options

Pass/No Credit Enrollment (P/NC grade)

- For Pass/No Credit enrollment, no letter grade or grade points are earned. Credits taken for pass/no credit grade option may not satisfy certain academic requirements.
- P/NC grading option is requested using the **Change Grading Basis** form, this must be approved by faculty instructor.
- P/NC grading option is not reversible after add/drop date of the course.[1]. Electives may be taken on a P/NC basis.

- For Pass/No Credit, grades of A, AB, B, BC, or C, are designated “pass.” Grades of CD, D, F or WF are designated as NC or “no credit.” An NC does not affect grade point average, nor does it add to earned credits.
- Students considering applying for graduate or professional schools or transferring to another undergraduate campus should keep in mind that P/NC grading may have an adverse effect on admission. Graduate and professional schools generally prefer letter grades because such grades enable them to better judge potential for academic success. This grading option is not reversible after enrollment.

Audit Enrollment (U/S grade)

- A student may not enroll as an auditor for any graduate-level course.

[1] ***Add/Drop deadlines vary by length of course.***
14 week courses have a two week add period in which Pass/No Credit grading option can be requested and approved using the appropriate form mentioned above.
Courses of a shorter duration have shorter deadlines. Contact gboss@uwgb.edu if you are not able to find your course dates on the Registration calendar. (http://www.uwgb.edu/registrar/calendar/registration)

Grading System and Grade Points

Grade point averages are a means of measuring the quality of a student’s academic work. Grade point averages are computed on a 4.0 basis. See chart for letter grade point values.

Letter Grade		Grade Points per Credit
A	Excellent	4.0
AB	Very Good	3.5
B	Good	3.0
BC	Above Average	2.5
C	Average	2.0
CD	Below Average	1.5
D	Poor	1.0
F	Unacceptable	0.0
WF	Unofficial Withdrawal	0.0
P	A "C" grade or better for gradaute courses	No effect
NC	No credit, letter grade of less than "C"	No effect
U	Unsatisfactory Audit	No effect
S	Satisfactory Audit	No effect
N	No acceptable report from instructor - temporary grade	No effect until an acceptable grade submitted
I	Incomplete, temporary grade	No effect until removed
PR	Progress in graduate thesis or internship	No effect
DR	Dropped Class	No effect
W	Withdrew	No effect

Graduate Assigned Study

Other undergraduate courses at the 300 and 400 level that are offered, may be taken for graduate credit if they contribute to a coherent program of study. A **Graduate Assigned Study Form** must be approved by the faculty instructor of the course and is submitted to the Green Bay One Stop Shop for completion of enrollment. To obtain the form click here (http://www.uwgb.edu/graduate/forms).

Academic standards for graduate-level credit exceed standards for undergraduate credit. Increased standards may be in the form of additional academic work and/or an increase in grading standards. Students should be aware of the requisites required for cross-listed or approved courses.

Graduate Credits

Graduate credits are those credits which are taken under a graduate course number (500-level or above) by a student enrolled with a graduate classification

Graduate Record

A graduate record is the permanent record of all graduate-level credits attempted and grades earned, including courses which may be in progress or incomplete (I grade). A complete transcript includes copies of both the graduate and undergraduate records compiled at UW-Green Bay.

Graduate Students Who Want to Enroll in Undergraduate-Level Courses in the Same Semester

This policy is intended to establish guidelines by which graduate-level students can enroll in undergraduate courses and undergraduate-level students can enroll in graduate courses. It is not intended to replace any other policies or procedures regarding the taking of classes, tuition, and segregated fees.

- Students must gain permission from instructor to enroll in the course using the **Course Registration/Late Add** form by clicking here (http://www.uwgb.edu/registrar/forms).
- If permission is granted the Registrar's office will contact student with confirmation of enrollment or further instruction if permission is denied. If the student has questions they should email the Green Bay One Stop Shop at gboss@uwgb.edu
- Course tuition and fees are assessed based on the level of the course taken.
- Undergraduate courses cannot fulfill a graduate degree course requirement.
- Course data is annotated on the transcript by level of course.
- Students who want to take an undergraduate course prior to their graduate degree program should submit an application for admission as a non-degree seeking course taker with admissions. More information here (http://www.uwgb.edu/admissions/apply).

Incomplete Grades

Incomplete grades (I grade)

- A student who is unable to take a final examination or meet other final coursework due to unusual circumstances may request an incomplete from the instructor.
- The decision to allow an incomplete is entirely at the discretion of the instructor. It is not a right.
- If an incomplete is approved by the faculty instructor, the student is granted an extension of time to complete course requirements.
- An incomplete form must be submitted to the Registrar’s office specifying the terms and conditions of completing the incomplete from the instructor.
- Incomplete coursework must be finished no later than the end of the subsequent semester.
- If no final grade is awarded or the work is not completed, the temporary grade is lapsed to a final F grade at the end of the subsequent semester.
- A student may file petition for an extension of the incomplete deadline if bona fide unanticipated extenuating circumstances prevented compliance with the deadline.
  - The student has serious physical or mental health problems which are documented by statements from a physician or professional counselor.
  - The student has had a death or serious illness in the immediate family and this is documented by a physician’s statement.
  - The course instructor is on leave during the semester for removal.
- Once an incomplete grade is recorded for a course a student may not, under any circumstances, drop the course.

Incomplete grades for Graduating Students

Students who complete their coursework in December (fall graduates), January (January graduates), May (spring graduates) or August (summer graduates) must have all incomplete grades removed within 42 days following the end of the classes to have their degree conferred in that semester. If this deadline is not met, students will be removed and added to a future semester for degree conferral.

Independent Study

- Numbered XXX-798, Variable 1-3 credits.
- Students prepare a statement of objectives and a list of readings and/or research projects that will fulfill learning outcomes, which faculty will approve.
- Independent study courses cannot be elected on an audit or pass/no credit graded basis.
- Independent studies may be taken only with a regular member of the UW-Green Bay faculty or academic staff member.
- Graduate Special students are not eligible to enroll in Independent Study.

Individualized Course Instruction

Universal Expectations

- Regular semester add and drop deadlines apply to these enrollments.
- Approved forms must be submitted in the semester the learning experiences are taking place; students will not be retroactively added to these learning experiences.
- Faculty must file syllabi and include appropriate information such as student learning outcomes, time commitments for work, additional requirements for placement including, but not limited to, criminal background checks, medical testing (such as tuberculosis test) or other requirements outlined by a third party human resources department or site supervisor.
- Courses cannot be used to replace existing courses.
- For each credit earned there will be a weekly amount of hours worked in the learning experience as a minimum expectation. For each credit in the classroom, one hour of instruction plus two hours of outside work is expected with each course. Courses run for fifteen weeks in a given semester (14 weeks of instruction plus a finals week); thus the formula for a week's work is 3 hours times 15 weeks equals 45 weekly hours.

Specific conditions or limitations apply to the type of learning experience in addition to the universal expectations.

- Independent Study
- Internship
- Special Topics
- Thesis or Dissertation

Internship

- Numbered XXX-797, Variable 1-6 credits.
- Students prepare a statement of internship setting and working arrangement with outside intern supervisor. Work performed will fulfill course learning outcomes and be approved by faculty member.
- Students will have a site supervisor and faculty supervisor for work performed.
- All parties, student, faculty member and site supervisor, should discuss and set expectations regarding hours worked and performance feedback before work begins.
- All additional requirements for hire (if any) should be identified prior to enrollment and an outline of how these will be met should be explained to the student intern.
- Graduate Special students are not eligible for Internships.

Mode of Instruction

- In Person - Faculty and students are scheduled in a particular classroom or laboratory during a set day/time.
- Interactive Video - Faculty and students are scheduled at a particular time at one of several campus sites and interactively use audio, computer and video connections simultaneously.
- Online - Online courses let students and faculty interact with each other as class members entirely over the Internet. Instructional courseware utilizes web pages, discussion groups and UWGB e-mail. Online courses do not meet at a particular time or place, but they are structured within the academic semester timeframe and require class participation several times each week.
- Blended - A blended course is a course where the content is taught using face-to-face and online or "time-out-of-class" learning modes. Blended courses are approximately 40-60% online with the remainder conducted face-to-face.
- Virtual Classroom - Faculty and students interact with each other as class members entirely over the Internet during a set day/time. Faculty and students converse and interact with each other's coursework while viewing each other in a real-time classroom setting (this would be skype or zoom, etc.)
- In Person w/streaming online capability - Faculty and students are scheduled in a particular classroom or laboratory during a set day/time. Class sessions can be viewed live, but are also are recorded for later access via the Internet.

Petition Process for Late Drop or Withdrawal

1. Petitions (https://www.uwgb.edu/registrar/forms-petitions/petitions-forms) can be submitted online or in person. All petitions with appropriate documentation will be evaluated and acted on in a timely manner by the Enrollment Review Committee.
2. Petitions for late drops or withdrawals may be approved if one of these extenuating circumstances occurs and can be documented. The extenuating circumstance must occur within the semester the drop or withdrawal is being requested.

a. The student has serious mental or physical health problems verified by a statement from a physician or professional counselor.
b. There is a death or prolonged serious illness in the immediate family, verified by an obituary, a physician's statement, or other independent, official source.
c. The student receives orders being called to military service and cannot return for the semester. Supporting documentation is required.

3. Petition to drop a course or completely withdraw from the University MUST be submitted prior to the last day of the semester that is being petitioned.

Provisional Admission

Provisional admission is limited to students generally lacking one prerequisite or carrying an undergraduate GPA below 3.0. If students are admitted with low undergraduate GPA, that student must complete first 9 credits at UWGB with a GPA of 3.0 or above. If student is admitted while lacking a prerequisite, the student must complete that competency during or before the first semester of graduate school.

Repeat Policy

Repeating a Course

Repeating Courses for Credit

Courses can be repeated for credit only if they are officially designated as repeatable due to the nature of the course content. Performance courses in Music, Studio Arts courses or courses designated with differing topics are examples.

Courses that have been repeated for credit are recorded on the student's transcript with the phrase *Course has been Repeated* after the course listing on the transcript.

Faculty members may not grant individual waivers for students to repeat a course for credit when the course is not already designated as repeatable in the college catalog. Creating a repeatable course can be accomplished via the course/curriculum change processes on an annual basis.

Repeating Courses to Improve a Grade

Courses can also be repeated to improve the grade received. If a course is repeated, the original attempt will still appear on the transcript with the grade earned. However, the grade received after the course is repeated will be used to determine the credit earned; attempted credits, grade points earned, and grade point average both for the term and cumulatively.

If a course is transferred in and then repeated at UW-Green Bay, the grade received when taken at UW-Green Bay will be used to determine the credits earned, attempted credits, grade points earned, and grade point average both for the term and cumulatively. The original transfer course and grade will no longer count toward degree requirements or total credits earned toward a degree. A course can only count once.

If a course is taken at UW-Green Bay, and then repeated at another institution and transferred to UW-Green Bay, the credits earned and grade received for the course taken at UW-Green Bay is still used to calculate the cumulative GPA, cumulative attempted credits, grade points earned and grade point average. The transfer course grade can, however be used to satisfy degree or course prerequisite requirements but the credits earned will not count toward the credits required for a degree.

The University does not guarantee the right to retake any course. Courses may be deactivated, discontinued, or offered on a different schedule.

Based on federal regulations which went into effect July 1, 2011, some repeat coursework may be excluded when evaluating a student's credit load as it relates to federal and/or state financial aid eligibility. If not designated as a repeatable course, students may have aid reduced. In general, for financial aid purposes, students are allowed to repeat a course for which a passing grade was previously received **ONE** additional time, with financial aid eligibility. Students may repeat the course after that, but those attempts would not be eligible for funding by federal or state financial aid programs.

Special Topics

- Numbered XXX-795, Variable 1-3 credits.
- At times, professors or groups of professors may organize courses, seminars, colloquia, field trips, and so on, around some topic of interest or special need.
- Special courses are not intended to become part of the regular curriculum.
- Special courses cannot be counted as part of the graduate core requirement.

Student

The University of Wisconsin-Green Bay defines a student as any individual who is currently enrolled, or was enrolled, in a credit bearing course at the University of Wisconsin-Green Bay.

Thesis or Dissertation

(Numbered XXX-796/XXX-799)
Students complete a thesis or dissertation under the supervision of a major professor and committee. The thesis and dissertation provide graduate students the opportunity to apply their course work and independent investigation skills to increase knowledge. Successful completion of a thesis or dissertation demonstrates a student's ability to manage a project, and to define, research, and solve problems. The procedures for developing a proposal and completing the thesis or dissertation vary by program. Students should consult the program-specific sections of this catalog or a program's website for additional information. Details on thesis and dissertation committee composition can be found within the program-specific sections of this catalog. Graduate Special students are not eligible for Thesis and Dissertation credits.

Thesis and Dissertation Deadline: For graduation in the fall and spring semesters, a student's defense must be **held** before the last day of final exams in a given semester (fall, January, or spring). For summer, a student's defense must be **held** before the last day of final exams of the final summer session. The student then has 20 calendar days after the last day of final exams to submit their final thesis/project document to the Office of Graduate Studies and 42 calendar days after the last day of final exams for all other graduation requirements to be completed and verified.

Transfer Policy

Transfer of Graduate Credits

Up to 50% of graduate coursework can be completed at institutions accredited by a regional or national accrediting organization recognized by the Council for Higher Education Accreditation (CHEA) and applied toward a UW-Green Bay graduate degree. Individual programs may accept fewer credits. Transfer courses can be approved by graduate faculty as direct equivalencies (i.e. similar in nature, level, and content to a course in our graduate curriculum) to UW-Green Bay graduate courses. If granted as graduate elective credit to meet a program requirement, a course substitution is made.

Foreign institutions must be recognized by the Ministry of Education in that country. To receive credit for courses that you have taken at another college or university outside the United States, you should must submit your academic records to a professional evaluation service currently recognized by NACES (www.naces.org (http://www.naces.org)) for review. UW-Green Bay recommends one of the following evaluation services:

- Educational Credential Evaluators (ECE) http://www.ece.org/
- World Education Services (WES) http://www.wes.org/

All outcomes, once approved, should be forwarded to the Office of the Registrar to be transacted on the academic record. All remaining coursework must be completed at UW-Green Bay, with the total UW-Green Bay credits accounting for a minimum of 50% of the required program credits.

Types of Credit

Attempted Credits

Attempted credits are the number of credits a student has originally enrolled in during a specific session or term before grades are awarded.

Degree Credits

Degree credits are those credits earned that fulfill graduation requirements for a graduate program. Students must earn a semester grade of C or higher in a graduate course for the credits to count toward fulfilment of graduate program requirements at UW-Green Bay.

Earned Credits

Earned credits are the number of credits where a final grade is assigned. Quality points are awarded for graded credits, which is then used to calculate grade point average for the semester and cumulatively. Courses that are graded with a letter or passing grade are calculated in this total; temporary grades of I = Incomplete or N = Not yet graded, are excluded.

Undergraduate Record

An undergraduate record is the permanent record of all undergraduate-level credits attempted and grades earned. A complete transcript includes copies of both the graduate and undergraduate records compiled at UW-Green Bay.

Undergraduates Seeking Enrollment in Undergraduate-Graduate Accelerated Programs

This policy is intended to establish guidelines by which graduate-level students can enroll in undergraduate courses and undergraduate-level students can enroll in graduate courses. It is not intended to replace any other policies or procedures regarding the taking of classes, tuition, and segregated fees.

- Interested undergraduate students must receive official acceptance into a desired program's accelerated-undergraduate student emphasis.
  - Students must have at least junior standing to apply.
  - Students must carry a cumulative GPA of 3.25 or higher.
  - Students must submit a completed Approval of Admission to an Accelerated Track (GR-A) Form (https://www.uwgb.edu/graduate/students/forms).
- Admitted students enroll at the graduate level in select graduate courses. Admitted accelerated students are eligible to enroll in up to a maximum of 12 graduate credits prior to obtaining their Bachelor's degree, although individual programs may allow fewer.
- Accelerated undergraduate students pay tuition at the undergraduate rate, as these credits apply directly to their undergraduate major.
- Accelerated students graduate with an undergraduate major.
- Following graduation, students can request formal admission into relevant campus graduate programs, applying no more than 12 graduate credits into the partnering graduate program of study, although individual programs may accept fewer credits.
- Graduate students adhere to all graduate student expectations and pay full graduate tuition rates.

Undergraduates Who Want to Enroll in Graduate-Level Courses

This policy is intended to establish guidelines by which graduate-level students can enroll in undergraduate courses and undergraduate-level students can enroll in graduate courses. It is not intended to replace any other policies or procedures regarding the taking of classes, tuition, and segregated fees.

- Students must submit a graduate application for admission as a non-degree seeking student (Graduate Special status).
- Students must also gain permission from instructor to enroll in the course using the **Course Registration/Late Add** form by clicking here (http://www.uwgb.edu/registrar/forms).
- Enrollment and permission to enter graduate-level courses is not guaranteed and may not be granted if student has not yet completed their Bachelor's degree.
- If student is admitted as a graduate special student and permission is granted for enrollment the Registrar's office will contact student to confirm enrollment or provide further instruction if permission is denied. If the student has questions they should email the Green Bay One Stop Shop at gboss@uwgb.edu.
- Course tuition and fees are assessed based on the level of the course taken.
- Graduate credits can satisfy undergraduate degree course requirements through the established University substitution process.
- Course data is annotated on the transcript by level of course.

Withdrawal

Officially remove all courses from schedule; student is no longer enrolled.

Withdraw during First Two Weeks [1]: (*Semester-long courses at UW-Green Bay)*

Enrolled students are able to drop all their individual regular semester-long courses during the first two weeks of the fall/spring semester with no academic grade assigned. Withdrawal fees apply if a student withdraws from all courses in the first two weeks.

See the billing and refund schedule link on the Bursar website for these fees and deadlines[2]. Once a student drops to zero credits of enrollment, the Registrar's office withdraws the student from the semester.

Late Withdrawal (*Semester-long courses at UW-Green Bay)*

- Week 3 to week 6: Students can withdraw by dropping all their courses. DR (drop) grades will appear on the transcript for all courses and signifies that the student officially dropped the courses.

If the student contacts the University to withdraw, a staff member will complete the transaction and W grades (withdrawal) are assigned for all courses on the transcript. Once a student drops to zero credits of enrollment, the Registrar's office withdraws the student from the semester.

- Week 7 to week 12: A student may withdraw (drop all courses) from the institution but must contact the Registrar's office to do so. W grades (withdrawal) will appear on the transcript for all courses and student is withdrawn for the semester.
- Week 13 to the end of the term: Withdrawals are not allowed.

A Late Withdrawal Petition (p. 24) must be submitted and approved by the Enrollment Review Committee to withdraw after the deadline. Petitions are only approved for extenuating circumstances with supporting documentation.

Late Withdrawal (*Courses less than 14 weeks in duration)*

- Start of week two until half the course duration (50%) a student may drop all courses, and a DR (drop grade) will appear on the transcript for each enrollment, the Registrar's office will withdraw the student for the semester.
- Day after half the course duration, a Late Withdrawal Petition (p. 24) is submitted and must be approved by the Enrollment Review Committee. Petitions are only approved for extenuating circumstances with supporting documentation. If a late withdrawal is granted, students remain responsible for the tuition and fees assessed for the course as they received instruction and held a seat in the course.

The financial ramifications of withdrawal depend on when the withdrawal is done. View the billing and refund schedule for more information. Students who received financial aid for the term should contact UW-Green Bay's Financial Aid office to discuss potential financial aid ramifications.

[1] A week is defined as 7 calendar days, beginning on the first day of a term or session, for the purposes of adds, drops or withdrawal deadlines.

[2] Tuition refunds and/or withdrawal fees vary by length of course and date of transaction. Please consult the Fee deadlines for the appropriate semester on the Bursar website for more details (http://www.uwgb.edu/bursar/term-deadline-calendar). Please note that financial deadlines are different from academic deadlines.

Emergency and Parental Notification Policy

University of Wisconsin-Green Bay faculty, staff and administrators are regularly asked to balance the interests of safety and privacy for individual students. While the Family Educational Rights and Privacy Act (FERPA) generally requires UWGB to ask for written consent or proof that the student is a tax dependent of the parents [and then disclosure may only be made to the parent(s)] before disclosing a student's personally identifiable information, it also allows colleges and universities to take key steps to maintain campus safety. UWGB may disclose information to appropriate individuals (e.g., parents/guardians, spouses, housing staff, health care personnel, police, etc.) without the student's consent, where disclosure is in connection with a health or safety emergency and knowledge of such information is necessary to protect the health or safety of the student or other individuals. Disclosures are also allowed among university employees where there is a "need to know," such as conducting transactions or sharing updates between departments with whom the student interacts.

Health or Safety Emergency

In an emergency, FERPA permits UWGB officials to disclose, without student consent, education records which may include personally identifiable information from those records, to protect the health or safety of students or other individuals. At such times, records and information may be released to appropriate parties such as law enforcement officials, public health officials, and trained medical personnel. See http://www.ed.gov/legislation/FedRegister/finrule/2008-4/120908a.pdf. [34CFR part 99, 99.36(a)]. This exception to FERPA's general consent rule does not allow for a blanket release of personally identifiable information from a student's educational records. In addition, the Department of Education interprets FERPA to permit institutions to disclose information from education records to parents if a health or safety emergency involves their son or daughter.

Disciplinary Records

While student disciplinary records are protected as education records under FERPA, there are certain circumstances in which disciplinary records may be disclosed without the student's consent. UWGB may disclose to an alleged victim of any crime of violence or non-forcible sex offense, if requested in writing, the final results of a disciplinary proceeding conducted by the institution against the alleged perpetrator of that crime, regardless of whether the institution concluded a violation was committed. UWGB may disclose to anyone — not just the victim — the final results of a disciplinary proceeding, if it determines that the student is an alleged perpetrator of a crime of violence or non-forcible sex offense, and with respect to the allegation made against him or her, the student has committed a violation of the UWGB's rules or policies. See http://www.ed.gov/legislation/FedRegister/finrule/2008-4/120908a.pdf. [34CFR part 99, 99.31(14)(i)(A).

Annual Security Report

The University of Wisconsin-Green Bay's annual security report includes statistics for the previous three years concerning reported crimes that occurred on campus; in certain off-campus buildings or property owned or controlled by UW-Green Bay; and on public property within, or immediately adjacent to and accessible from, the campus. This report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other matters. Fire safety statistics for student housing are included. You can obtain a copy of this report by contacting the Office of Public Safety or by accessing the following website: http://www.uwgb.edu/public-safety/clery/annual-security-and-fire-safety-report/

Law Enforcement Unit Records

Police investigative reports created and maintained by UWGB Police and Public Safety are not considered education records subject to FERPA. Accordingly, UWGB may disclose information from law enforcement unit records to anyone, including outside law enforcement authorities, without student consent, and once an investigation is complete.

Disclosure to Parents

When a student enters UWGB, including those less than 18 years of age, all rights afforded to parents under FERPA will transfer to the student. However, FERPA also provides ways in which UWGB may share information with parents without the student's consent. For example:

- UWGB may disclose education records to parents if the student is a dependent for income tax purposes. Parents must provide tax returns or other information sufficient to show dependency for tax purposes.
- UWGB may disclose education records to parents if a health or safety concern involves their son or daughter.
- UWGB may inform parents if the student who is under age 21 has violated any law or its policy concerning the use or possession of alcohol or a controlled substance.
- A UWGB official may generally share with a parent, information that is based on that official's personal knowledge or observation of the student (e.g., a faculty or staff member's observation of a student's behavior).

FERPA and Student Health Information

The UWGB Counseling and Health Center may share student medical treatment records with parents and/or others under the health and safety circumstances described above. These records may otherwise be protected by other federal and state medical records privacy laws and can only be shared once a medical release form is signed by the student.

FERPA and Student and Exchange Visitor Information System (SEVIS)

FERPA permits UWGB to comply with information requests from the Department of Homeland Security (DHS) and its Immigration and Customs Enforcement Bureau (ICE) in order to comply with the requirements of SEVIS.

Transfer of Education Records

Finally, FERPA permits UWGB officials to disclose any and all education records, including disciplinary records, to another institution at which the student, seeks or intends to enroll or is currently enrolled.

Contact Information

For further information about FERPA, please contact the UWGB FERPA website at http://www.uwgb.edu/ferpa/.

More information regarding FERPA can be obtained from the:
Family Policy Compliance Office -
U.S. Department of Education
400 Maryland Ave. S.W.
Washington, DC 20202-5920
202-260-3887
http://www.ed.gov/policy/gen/guid/fpco/

Official University Calendars

Official University Calendars

- **Academic Calendar:** Official calendar of activity for the school year (term dates, registration dates, breaks and holidays, etc.)
- **Administrative Calendar:** Calendar relating to curricular change, timetable, and personnel evaluations
- **Registration Calendars (Fall/January/Spring/Summer):** Calendar of specific registration/academic action deadlines (add/drop/withdrawals, late registration, and fee implications of selected academic actions)
- **Final Exam Calendar:** Final exam schedule for the semester in session

Tuition and Fees

Costs

Fees and tuition are subject to change by action of the University of Wisconsin System Board of Regents and the Wisconsin Legislature. The actual costs for each academic year are available through the Bursar's Office. Consult the Bursar's website at http://www.uwgb.edu/bursar/ or the Office of Graduate Studies website at http://www.uwgb.edu/graduate/.

Residency

A student's resident classification is made during the admission process. The determination is fully explained, as is some reciprocity and tuition programs, on the Registrar website (http://www.uwgb.edu/registrar/residency).

If you have further questions or want additional information please contact the Residency Examiner at (920) 465-2725 or registrar@uwgb.edu.

Non-Resident Tuition Waivers

Non-resident tuition waivers are available on a competitive basis for students with a record of high academic achievement. Recipients of waivers remain responsible for Wisconsin resident tuition and fees.

Other Financial Aid

In addition to graduate assistantships, several other grant or aid programs are available. These include Perkins Loans, Stafford Loans, or University work/study awards. Students defined as minority group members may apply for Advanced Opportunity Grants or Wisconsin Indian Student Assistance Grants. For more information, contact the Financial Aid Office at (920) 465-2075.

Other Fee Related Policy Information

Tuition Appeals

- Students who wish to appeal institutional charges may do so via the tuition appeal process using the **Appeal Institutional Charges** form. The appeal institutional charges policy is also referenced, using this same link.
- Students must pay for completed coursework (i.e., grades that are earned and are part of the academic record). Students appealing institutional charges for coursework for which grades have already been earned must first complete a late drop/withdrawal appeal. Tuition appeals are not reviewed unless the grade earned has been removed.

Graduate Programs

D

- Doctorate of Education, EdD (p. 30)

M

- Master of Athletic Training (p. 33)
- Master of Science in Applied Biotechnology (p. 36)
- Master of Science in Applied Leadership for Teaching and Learning (p. 38)
- Master of Science in Data Science (p. 41)
- Master of Science in Environmental Science and Policy (p. 42)
- Master of Science in Health & Wellness Management (p. 57)
- Master of Science in Management (p. 58)
- Master of Science in Nursing Leadership and Management (p. 61)
- Master of Science in Sustainable Management (p. 64)
- Master of Social Work (p. 65)

Doctorate of Education, EdD

The program is centered in Indigenous knowledge systems and draws upon Indigenous teaching and learning methods. The program aligns with the UW-Green Bay's mission to provide an interdisciplinary, problem-focused educational experience that prepares students to think critically and address complex issues in a multicultural and changing world. The Ed.D. in First Nations Education enriches the quality of life for students and the community by embracing the educational value of diversity, encouraging engaged citizenship, and serving as an intellectual and cultural resource for First Nations and non-First Nations communities. In addition, the Ed.D. advances the institutional goal of improving teaching and learning with its focus on First Nations Elder epistemology and pedagogy.

The program is practitioner focused and driven by professional and community needs. The Education Doctorate (Ed.D.) is an applied degree that addresses genuine issues and generates knowledge about First Nations. The Ed.D. in First Nations Education prepares leaders to transform institutions and promote cultural resurgence and the vitality of future generations.

The program draws students from an array of professional backgrounds including: PK-12 administrators in school districts with First Nations students, tribal college administrators and teachers, tribal education administrators, tribal social service administrators, tribal health care administrators, tribal library administration, First Nations governmental officials, tribal school district administrators, tribal career service and vocational rehabilitation administrators, tribal historians, tribal human resources administrators, and others.

The 54-credit degree program is offered over 4 years. The degree consists of a set of core courses offered primarily in face to face settings, reflecting the oral tradition. Classes are offered on weekends with limited online delivery to accommodate working professionals. Students enter the program in a cohort and work collaboratively in classes during the first two years of the program, including summer. Two classes (6 credits) in the program are

shared, on-line courses offered through the UW System Ed.D. Cooperative. Students complete the degree with a culminating applied dissertation project in years three and four. The dissertation project is developed in collaboration with First Nations governments, communities, and individuals. It is a scholarly project that impacts the Tribal World.

More information, admission requirements, required application materials and applications are on the UW-Green Bay Graduate Studies website.

Code	Title	Credits
Required Foundations Courses		21
FNED 800	Introduction to Indigenous Education	
FNED 801	Ancestral Leadership Ways of Leadership	
FNED 804	Indigenous Pedagogy	
FNED 805	Generational Healing	
FNED 810	Philosophical and Theoretical Foundations of Leadership in Education	
FNED 820	Critical Analysis of Systemic Inequity: Social Justice Education	
FNED 830	First Nations Law and Policy	
First Nations Research and Assessment		12
FNED 807	Indigenous Inquiry	
FNED 825	Relational Assessment	
FNED 826	Grant Writing	
FNED 831	Qualitative Research Methods	
FNED 832	Program Evaluation	
FNED 834	Statistics Lab	
Comprehensive Exam		
Upon completion of 33 credits of First Nations Education coursework (not including the elective credits) students must pass one individual written comprehensive exam and one cohort oral comprehensive exam.		
Area of Emphasis or Approved Elective Class [1]		3
Dissertation Applied Project		18
FNED 898	Dissertation Project Seminar: Relational Knowledge and Praxis (9 credits required)	
Upon completion of 9 credits of dissertation seminar, student must successfully defend a written dissertation project proposal.		
FNED 899	Dissertation Project (9 credits required)	
Upon completion of the dissertation project, studet must pass a public oral defense.		
Total Credits		54

[1] Students must enroll in a minimum of 3 credits of electives and may choose from the Ed.D. cooperative program course offerings. These credits may be packaged to provide a specialty emphasis established by the participating institution or may be chosen in consultation with and as approved by the Ed.D. chair or student's Ed.D. advisor.

Course	Title	Credits
First Year		
Fall		
FNED 800	Introduction to Indigenous Education	3
FNED 801	Ancestral Leadership Ways of Leadership	3
	Credits	6
Spring		
FNED 804	Indigenous Pedagogy	3
FNED 820	Critical Analysis of Systemic Inequity: Social Justice Education	3
	Credits	6
Summer		
FNED 805	Generational Healing	3
FNED 807	Indigenous Inquiry	3
	Credits	6

Second Year		
Fall		
FNED 810	Philosophical and Theoretical Foundations of Leadership in Education	3
FNED 825	Relational Assessment	2
FNED 826	Grant Writing	1
	Credits	6
Spring		
FNED 830	First Nations Law and Policy	3
Elective		3
Individual written comprehensive exam		
Cohort oral comprehensive exam		
	Credits	6
Summer		
FNED 831	Qualitative Research Methods	2
FNED 832	Program Evaluation	2
FNED 834	Statistics Lab	2
	Credits	6
Third Year		
Fall		
FNED 898	Dissertation Project Seminar: Relational Knowledge and Praxis	3
	Credits	3
Spring		
FNED 898	Dissertation Project Seminar: Relational Knowledge and Praxis	3
	Credits	3
Summer		
FNED 898	Dissertation Project Seminar: Relational Knowledge and Praxis	3
	Credits	3
Fourth Year		
Fall		
FNED 899	Dissertation Project	3
	Credits	3
Spring		
FNED 899	Dissertation Project	3
	Credits	3
Summer		
FNED 899	Dissertation Project	3
	Credits	3
	Total Credits	54

Steps Toward the Degree

1. Student applicant is admitted to the doctoral program.
2. In year three, after completion of 33 credits of coursework (not including elective credits), student enrolls in FNED 898 Dissertation Project Seminar.
    a. Student successfully completes an individual comprehensive written exam.
    b. Student successfully completes an all-cohort comprehensive oral exam.
    c. Student successfully completes a dissertation project proposal.
3. Student enrolls in FNED 899 Dissertation Project
    a. Student successfully completes a dissertation project including the dissertation oral defense.
4. Dissertation advisor files the Approval of Dissertation Project Defense Form with the Office of Graduate Studies.
5. Degree is awarded and graduate received diploma.

The faculty in the Ed.D. in First Nations Education represent a wide range of teaching, practice, and research experiences. Both oral traditional and academic scholars collaborate and co-teach classes together. The oral traditional scholars provide an experience in listening, observing, doing, and inquiring that fits within indigenous cultural contexts. This offers students an opportunity to experience learning in traditional First Nations approaches. Contact information and biographies for faculty and staff are available on the program website at www.uwgb.edu/fned

Master of Athletic Training

The University of Wisconsin-Green Bay's (UWGB) Master of Athletic Training (MAT) program in the Department of Human Biology provides students an education focused on an evidence-based approach to healthcare. In conjunction with our community and clinical partners, graduates of the UWGB MAT are prepared to practice athletic training as part of an interprofessional healthcare team focused on improving patient outcomes across the life span.

The MAT consists of curriculum that includes classroom, laboratory, and clinical education that exceeds the foundational and core knowledge in Athletic Training as outlined by the educational standards set by the Commission on Accreditation of Athletic Training Education (CAATE). The program will require 2 full years (summer-fall-spring, summer-fall-spring) to complete and requires the completion of 61 credit hours. Students who complete the degree requirements earn a Master of Athletic Training.

The following academic objectives have been developed to ensure the program is meeting and exceeding the educational standards set by the CAATE.

- Student will be able to develop and implement strategies and programs to prevent the incidence and/or severity of injuries and illnesses and optimize their patients' overall health and quality of life.
- Student will demonstrate strong clinical examination skills in order to accurately diagnose and effectively treat the patient.
- Student will demonstrate the knowledge and skills in order to evaluate and provide immediate management of acute injuries and illnesses.
- Based on the assessment of the patient's status and with consideration of the stages of healing and patient goals, the student will be able to develop therapeutic interventions designed to maximize the patient's participation and health-related quality of life.
- Student will demonstrate the ability to recognize patients exhibiting abnormal social, emotional, and mental behaviors and determine the appropriate intervention and/or referral.
- Student will demonstrate an understanding of healthcare administration and the ability to apply these concepts to the healthcare system.
- Student will demonstrate an understanding of the importance and responsibility of continued professional development as a member of the healthcare system.

UW-Green Bay is currently seeking accreditation for their new Athletic Training program and is not accredited by the CAATE. The institution will be submitting a self-study to begin the accreditation process on July 1, 2020. Submission of the self--study and completion of a site visit does not guarantee that the program will become accredited. Students that graduate from the program prior to accreditation will not be eligible to sit for the credentialing examination for athletic trainers and will not be eligible for licensure in most states.

Please see the program webpage, https://www.uwgb.edu/athletic-training/, for up-to-date information concerning all aspects of the Master of Athletic Training.

MAT Admission: A limited number of applicants will be admitted to the Master of Athletic Training program. A maximum of 24 students will be admitted to the program each year. The following are program admission requirements and required applications materials:

You Will Need

- Official transcripts verifying completion of a bachelor degree with a minimum overall GPA of 3.0.
- $56.00 application fee
- UW System application form (apply.wisconsin.edu/ (https://apply.wisconsin.edu))
- Official transcripts* verifying the completion of the following pre-requisite coursework with a grade of C or better:
  - Biology - Courses must be a minimum of 4 credits and include a laboratory component.
  - Physics - Courses must be a minimum of 4 credits and include a laboratory component.
  - Chemistry - Applicant must complete a two-semester sequence of chemistry (8 credits minimum) that include a laboratory component.
  - Human Anatomy and Physiology - Applicant must complete a two-semester sequence of anatomy and physiology with a laboratory component. This can be a two-semester combined anatomy and physiology course, or separate anatomy and physiology courses.
  - Exercise Physiology
  - Kinesiology/Biomechanics
  - General Psychology
  - Human Nutrition
  - Statistics
- Professional References:
  - Two letters of evaluation (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/Letter-of-Evaluation-MAT.pdf)** - Applicants must provide letters of evaluation from two individuals who can speak directly to the applicants' potential success in a professional studies program in athletic

training. At least one letter from either a healthcare provider or a current or former faculty member from the applicant's undergraduate degree program is preferred.

- Written Essay:
  - Applicants must write an essay describing their interest in pursuing a career in Athletic Training
  - The essay should address why the applicant is interested in studying athletic training at UWGB and how the MAT will help achieve their professional goals.
- Technical Standards Form:
  - Applicants must review and sign the Technical Standards Form (TSF) (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/TECHNICAL-STANDARDS-FOR-ADMISSION-(MAT).pdf).
  - Applicants must indicate on the TSF if they require accommodations to successfully complete the MAT.
- Physical Exam and Vaccination Verification:
  - Applicants are required to provide the verification that a physical examination (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/UWGB_MAT_physical_exam_verification.pdf) has been completed within 12 months of applying to the program by an approved health care provider (MD, DO, PA, CNP) confirming students meet the physical and mental abilities required of an athletic trainer.
  - Applicants must provide current records of immunization history (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/UWGB_MAT_Immunization-_Record.pdf) including: MMR, Varicella, Hepatitis B, and Tetanus-Diphtheria-Pertussis (Tdap).
- Observation Hours:
  - Applicants must complete 50 hours of documented observation/job shadowing (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/AT-Observation-Verification_1.pdf) in athletic training under the supervision of a certified athletic trainer.
- International students will also need to provide the following documentation:
  - A test of English proficiency (TOEFL or IELTS)
  - Course-by-course transcript evaluation from a professional evaluation service currently recognized by NACES (www.naces.org (http://www.naces.org)). UW-Green Bay recommends one of the following evaluation services:
    - Educational Credential Evaluators (ECE) http://www.ece.org/
    - World Education Services (WES) http://www.wes.org/
  - Financial Support Statement (https://www.uwgb.edu/UWGBCMS/media/graduate/files/pdf/Financial-Support-Statement.pdf) (this form must be submitted to gradstu@uwgb.ed (gradstu@uwgb.edu)u)
  - Bank Statement: Letter on official bank stationary verifying the amount of readily available funds to support the prospective student while in the U.S.
- Interview with MAT admission committee:
  - Once all required application materials have been submitted, qualified applicants will be invited to interview with the admissions committee.
  - Interviews can be conducted in person or through a web conference such as Skype.

Once accepted to the UWGB MAT program, the following documentation must be submitted to the MAT Program Director prior to starting classes:

- Healthcare provider background check.
- Proof of current certification in Basic Life Support (BLS) from the American Red Cross or the American Heart Association.
- Proof of a Tuberculosis (TB) test completed within the past 12 months.
- MAT students will need to show proof of antibody titers and/or influenza vaccination prior to starting clinical rotations.

*Official electronic transcripts must be sent to UWGB Admissions at uwgb@uwgb.edu directly from the institution that issued the transcript.

**The Masters of Athletic Training letter of evaluation is an electronic form the applicant initiates and sends to two references. The references must complete the form and email directly to the Office of Graduate Studies: gradstu@uwgb.edu. Information on this process will be provided to the applicant after the UW System application has been received. Traditional letters of recommendation are not required.

Code	Title	Credits
AT 541	Gross Human Anatomy	3
AT 551	Pathophysiology and Mechanics of Injury	2
AT 561	Health Promotion Through the Lifespan	2
AT 601	Foundational Practices in Athletic Training	2
AT 610	Psychosocial Aspects of Injury and Healing	2
AT 620	Evaluation and Management of Acute/Emergent Conditions	3
AT 700	Evidence Based Patient Care	2
AT 705	Therapeutic Interventions	4
AT 709	Nutritional and Pharmacological Interventions	2
AT 710	Evaluation and Management of Musculoskeletal Injury I	4
AT 720	Evaluation and Management of Musculoskeletal Injury II	4

AT 730	Evaluation and Management of Head Injuries	2
AT 740	Evaluation and Management of General Medical Conditions	3
AT 745	Interprofessional Education Seminar	1
AT 750	Athletic Training Administration	2
AT 755	Healthcare Communication	1
AT 760	Clinical Education I	2
AT 761	Clinical Education II	2
AT 762	Clinical Education III	2
AT 763	Clinical Education IV	2
AT 764	Clinical Education V	6
AT 780	Research Methods and Statistics in Athletic Training	3
AT 789	Athletic Training Research Seminar	2
AT 790	Athletic Training Capstone Project	3
Total Credits		61

Course	Title	Credits
First Year		
Summer		
AT 541	Gross Human Anatomy	3
AT 551	Pathophysiology and Mechanics of Injury	2
AT 601	Foundational Practices in Athletic Training	2
AT 620	Evaluation and Management of Acute/ Emergent Conditions	3
	Credits	10
Fall		
AT 700	Evidence Based Patient Care	2
AT 710	Evaluation and Management of Musculoskeletal Injury I	4
AT 760	Clinical Education I	2
AT 705	Therapeutic Interventions	4
	Credits	12
Spring		
AT 720	Evaluation and Management of Musculoskeletal Injury II	4
AT 761	Clinical Education II	2
AT 730	Evaluation and Management of Head Injuries	2
AT 745	Interprofessional Education Seminar	1
AT 750	Athletic Training Administration	2
	Credits	11
Second Year		
Summer		
AT 709	Nutritional and Pharmacological Interventions	2
AT 740	Evaluation and Management of General Medical Conditions	3
AT 610	Psychosocial Aspects of Injury and Healing	2
AT 780	Research Methods and Statistics in Athletic Training	3
	Credits	10

Fall		
AT 762	Clinical Education III	2
AT 763	Clinical Education IV	2
AT 561	Health Promotion Through the Lifespan	2
AT 755	Healthcare Communication	1
AT 789	Athletic Training Research Seminar	2
	Credits	9
Spring		
AT 764	Clinical Education V	6
AT 790	Athletic Training Capstone Project	3
	Credits	9
	Total Credits	61

William S Gear; Assistant Professor & Program Director Athletic Training; Ph.D., University of Pittsburgh.

Sadie Buboltz-Dubs; Assistant Professor & Coordinator of Clinical Education Athletic Training; DAT, University of Idaho

James C Marker; Associate Professor; Ph.D., Brigham Young University

Amanda J Nelson; Associate Professor; Ph.D., University of Illinois at Urbana-Champaign

Christine L Vandenhouten; Associate Professor; Ph.D., Marquette University

Master of Science in Applied Biotechnology

Overview

The University of Wisconsin-Green Bay, University of Wisconsin-Madison, University of Wisconsin-Oshkosh, University of Wisconsin-Parkside, University of Wisconsin-Platteville, University of Wisconsin-Stevens Point, and University of Wisconsin-Whitewater have collaborated to offer a fully online master's degree program in Applied Biotechnology. The program represents a comprehensive, multidisciplinary curriculum that prepares students to advance their careers and pursue their academic ambitions through leadership and management positions within the growing biotechnology field. Defined core courses provide students with a solid foundation in biotechnology, leadership, ethics, research, communications, product development, quality control, and regulatory and compliance practices. In addition, the program offers three unique tracks to assist students in tailoring their coursework to meet their career goals: quality assurance and compliance; business management; and research and development. Students will develop advanced knowledge and skills that will enable them to serve an important function and role within the biotechnology workforce.

Admission Requirements

Each student's prior academic background is evaluated by the University of Wisconsin – Green Bay program Chair. Students who show exceptional promise but lack the minimal prerequisites may be admitted provisionally. Applicants are not required to take the GRE for admission.

A completed application consists of a UW-Green Bay Graduate Application form, resume, personal statement describing the applicant's interest in the degree (see below), two letters of recommendation, official transcripts (undergraduate and graduate), and a $56.00 application fee.

Minimum Admission to the Master of Science in Applied Biotechnology program requires:

- A baccalaureate degree from an accredited institution
- A minimum of a 3.0 grade point average (GPA) based on a 4.0 scale.
- Prerequisite coursework in:
  - 2 semesters of college level Biology and/or Chemistry with lab
- Two letters of recommendation (can be professional or academic)
- Resume
- Up to 1,000 word statement of personal intent describing decision to pursue this degree and what you believe you will bring to the biotechnology field.

Degree Requirements

The M.S. in Applied Biotechnology represents a fully online, asynchronous curriculum comprised of 31 credits to include 18 credits from six core courses, 9 credits from completion of one Area of Emphasis (Business Management, Quality Assurance and Compliance, OR Research and

Development), 1 credit from a Capstone preparation course and 3 credits from a project-based Capstone course. Students may complete more than one Area of Emphasis.

Code	Title	Credits
Core Courses		18
ABT 700	Principles of Biotechnology	
ABT 705	Ethics, Safety, and Regulatory Environments in Biotechnology	
ABT 710	Professional and Technical Communication in Biotechnology	
ABT 715	Techniques in Biotechnology	
ABT 720	Experimental Design and Analysis in Biotechnology	
ABT 725	Leadership in Organizations	
Area of Emphasis [1]		9
Capstone		4
ABT 789	Pre-capstone	
ABT 790	Capstone	
Total Credits		31

[1] Students must also select and complete an area of emphasis:
- Business Management (p. 38)
- Quality Assurance and Compliance or (p. 38)
- Research and Development (p. 38)

Students must also select and complete an area of emphasis:

- Business Management (p. 38)
- Quality Assurance and Compliance or (p. 38)
- Research and Development (p. 38)

Progress to Degree

1. The candidate applies to the Master of Applied Biotechnology program by submitting an application, official transcripts, resume, a statement of intent, and two letters of recommendation to the University of Wisconsin-Green Bay Graduate School.
2. The candidate is admitted to the Master of Applied Biotechnology program by the University of Wisconsin-Green Bay program Chair.
3. The student fulfills the degree requirements for the program.
4. The student is awarded a Master of Applied Biotechnology degree from the University of Wisconsin-Green Bay.

Faculty Advisors

Grubisha, Lisa, Assistant Professor, Natural & Applied Sciences. Biology Program. Academic Director, Master of Science in Applied Biotechnology (ABT). B.S. (1988) University of Wisconsin-Milwaukee; M.S. (1998) Oregon State University; Ph.D. (2005) University of California-Berkeley

Fields of interest: Microbiology, metagenomics, conservation genetics, population genomics, phylogenetics, fungal ecology and evolution, microbial diversity and function.

Applied Biotechnology Emphasis

Students must also select and complete an area of emphasis:

- Business Management (p. 38)
- Quality Assurance and Compliance or (p. 38)
- Research and Development (p. 38)

Business Management Emphasis

MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

Code	Title	Credits
Required Courses		9
ABT 750	Biotechnology Marketing and Entrepreneurship	
ABT 755	Global Operations and Supply Chain Management	
ABT 760	Quality and Project Management	
Total Credits		9

Quality Assurance and Compliance Emphasis

MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

Code	Title	Credits
Required Courses:		9
ABT 735	Quality Control and Validation	
ABT 740	Regulatory Practice and Compliance	
ABT 745	Industrial Applications in Regulatory Affairs	
Total Credits		9

Research and Development Emphasis

MASTER OF SCIENCE IN APPLIED BIOTECHNOLOGY

Code	Title	Credits
Required Courses		9
ABT 765	Assessing Innovation in Biotechnology	
ABT 770	Product Development	
ABT 775	Tools for Data Analysis	
Total Credits		9

Master of Science in Applied Leadership for Teaching and Learning

The University of Wisconsin-Green Bay's Master's Degree in Applied Leadership for Teaching and Learning recognizes the valuable contributions of experienced educators and their ability to engage in professional development within a community of learners. With this understanding as its foundation, the program provides experienced educators with the opportunity to advance their knowledge and skills and be recognized as leaders within their profession.

This 30-credit program includes a 21-credit core requirement as well as a nine-credit area of emphasis. As part of the core requirement, degree candidates will be required to complete a culminating project or thesis related to an educational, school or classroom-based line of inquiry. The core curriculum is based on the National Board of Professional Teaching Standards (NBPTS). The standards that undergird this program are the following:

- Teachers are committed to students and their learning.[1]
- Teachers know the subjects they teach and how to teach those subjects to students.[1]
- Teachers are responsible for managing and monitoring student learning.[1]
- Teachers think systematically about their practice and learn from experience.[1]
- Teachers are members of learning communities.[1]
- Teachers understand system theory and how to initiate and sustain meaningful change.
- Teachers are knowledgeable about historical and contemporary educational reform efforts.

[1] NBPTS standards

The Applied Leadership degree is unique in many respects. It is a truly advanced degree program that does not include teacher certification. It recognizes the expertise of experienced educators working within a community of professional learners. Most importantly, this program prepares

professionals to conduct educational-based research and use their knowledge of research to make data-based decisions in order to improve student learning.

The program is designed as a part-time program for educators who are actively employed in educational and professional settings (e.g., PK-12 classroom settings and/or business and industry training). Courses are offered on the weekends and during the summer. Students are admitted to the program each fall semester in cohort groups with a maximum of 20 students per group. This small group size enables close contact with the program's faculty and promotes the development of a sense of community over the course of the program.

Prerequisites

Minimum admission requirements are:

- A baccalaureate degree from an accredited institution.
- Two years of successful teaching experience is preferred, but not required.
- A minimum of a 3.0 grade point average (GPA).

Admission Requirements

Each applicant's prior academic work and experience will be evaluated prior to admission. Applicants are expected to have college-level writing, oral communication and computer skills. Students who show exceptional promise but lack the minimal prerequisites may be admitted provisionally. Applicants are not required to take the GRE for admission.

The application process requires completion of a UW-Green Bay Graduate Application form; letter of interest; names and contact information of three references; and official transcripts (undergraduate and graduate).

Undergraduate-Graduate Dual Enrollment Program (NEW)

Undergraduate students who have enrolled and completed graduate credits through the Professional Program in Education, may apply up to 9 credits to the master's program upon acceptance to the graduate program.

Currently enrolled undergraduate students may refer to the undergraduate catalog for more information. Track requirements include being fully admitted to the Education program with Junior status, holding a cumulative GPA of 3.5 and a faculty recommendation. An admission committee consisting of graduate faculty will review student applications for acceptance before enrollment may occur.

Applications must be submitted by October 1 or March 1 for participation in the following semester. Upon completion of an undergraduate degree, students should request admission to the graduate program, at which point up to 9 graduate credits will be applied to the degree requirements of the program. Graduate students will then adhere to all graduate student expectations and pay full graduate tuition fees. See the undergraduate catalog for a list of courses.

Degree Requirements

The requirements for the Master of Science in Applied Leadership for Teaching and Learning consist of successfully completing a 21-credit core requirement and a nine-credit area of emphasis.

Students must maintain at least a B average to remain in the program and to graduate. A grade of C or better is required for course work to be counted toward graduation.

Students must file an *Official Declaration of Master's Degree* (GR-1 Form) before completing eight graduate credits in the program.

Core Requirement

A 15-credit set of core courses form the foundation for the degree. All students must complete the following:

Code	Title	Credits
Core Courses		15
EDUC 701	Reflective Inquiry	
EDUC 702	Approaches to Educational Inquiry	
EDUC 703	Contemporary Issues and Historical Contexts	
EDUC 704	Applied Educational Leadership	
Inquiry Project or Thesis		6
EDUC 799	Thesis,Thesis or Project	
Area of Emphasis		9

Select at least nine credits	
Total Credits	30

Each individual in the program is required to complete a culminating project or thesis related to an educational, school or classroom-based line of inquiry. Participants engage in activities relevant to the development, interpretation and dissemination of their research under the direct guidance of a graduate faculty adviser. In addition to the required faculty, professionals from outside the University may also serve on thesis committees.

Students usually enroll for two credits of project or thesis support during the summer of their first year. The additional four credits will be distributed over the fall, spring and summer of their second academic year.

Area of Emphasis

Each student selects an area of emphasis consisting of at least nine graduate credits. These credits may be completed at UW-Green Bay or at another institution or setting. It may be possible to establish a personal area of emphasis fitted to the career interests of the student. Such programs must conform to MSAL guidelines and be filed as a Program Plan approved by the student's academic adviser, program chair and the Associate Provost for Academic Affairs and Director of Graduate Studies.

Program requirements change from time to time. New graduate courses are added and others are dropped.

Steps Towards the Degree

1. Applicant is admitted to the graduate program.
2. An *Official Declaration of Master's Degree* (GR-1 Form) is submitted to the Office of Graduate Studies on the student's behalf.
3. After completion of at least 8 credits, the student develops a project proposal. The proposal is reviewed and approved by a project committee. The *Approval of Thesis or Project Proposal* (GR-2 Form) is submitted to the Office of Graduate Studies on the student's behalf.
4. Student may register for project credits (EDUC 799) and work on the project.
5. Student schedules the professional project presentation by filing the *Request for Thesis Defense/Project Presentation* (GR-3 Form) when the project document is nearly complete.
6. The student files an *Application for Graduation* with the Registrar's Office through the Student Information System (SIS). The application must be completed and submitted to the Office of the Registrar prior to November 1 for fall semester graduates and April 1 for spring and summer semester graduates.
7. A professional project presentation takes place. Filing the *Approval of Thesis Defense or Project Presentation* (GR-4 Form) with the Graduate Studies Office indicates satisfactory completion of the professional project and presentation.
8. Graduate receives diploma.

Graduate Committee

It is important for Applied Leadership for Teaching and Learning students to select a thesis/project committee early. The program chair or an adviser for the student's degree program normally assists in this process.

A thesis committee is comprised of at least two faculty members approved by the program chair. One member is requested by the student to act as the major professor or chair of the committee. That person must be a graduate faculty member of the student's degree program. In addition to faculty members, students are encouraged to ask a person from outside of the University to join their committees.

A professional project adviser may be a single faculty member within the student's program.

The thesis committee or project adviser is responsible for supervising the student's program of study and should:

- guide the student in appropriate selection of graduate courses and specialization studies to ensure that the student is aware of all relevant materials necessary to completely understand the chosen field of study;
- determine whether the student has accumulated and demonstrated sufficient ability to engage in analytic processes of problem solving;
- make certain that the student's project is consistent with the degree, confronts the interdisciplinary relationships of the subject area, and focuses on problem solving methods.

If during the student's course of study, he or she wishes to change committee members or adviser, the student must explain why the change is necessary or desirable. If the change is acceptable to both outgoing and incoming professors, the student must notify the Graduate Studies Office in writing.

Faculty

Ashmann, Scott, Associate Professor, Education. B.S., University of Wisconsin-Green Bay; M.S., University of Wisconsin-Milwaukee; Ph.D., Michigan State University.

Fields of interest: the professional development of secondary science teachers, science teacher preparation, leadership issues in mathematics and science education.

Davis, Gregory, Professor, Natural and Applied Sciences (Mathematics). B.S., University of Wisconsin-Green Bay; M.A., Ph.D., Northwestern University.

Fields of interest: dynamical systems, mathematical modeling of ecological systems, cliff swallow-house sparrow species dynamics.

Fencl, Heidi S., Associate Professor, Natural and Applied Sciences (Physics). B.S., Nebraska Wesleyan; M.S., University of Nebraska; Ph.D., Ohio State.

Fields of interest: science education, physics, astrophysics.

Kaufman, Timothy, Associate Professor, Education and Program Chair, Graduate Program in Applied Leadership for Teaching and Learning. B.A., Elmhurst College; M.S., Southern Illinois University; Ph.D., Loyola University.

Fields of interest: literacy, school reform, serving the needs of “at-risk” and learners with learning disabilities.

Kiehn, Mark, Associate Professor, Education. B.A., Adams State College; M.M.E., Ph.D., University of Colorado-Boulder.

Fields of interest: creative thinking in the classroom, arts education for exceptional learners, classroom assessment, school curriculum implementation/ educational reform.

Leary, J P, Assistant Professor, Humanistic Studies - First Nation Studies. B.A., University of Wisconsin-Eau Claire; M.A., University of Oklahoma;, Ph.D., University of Wisconsin-Madison.

Fields of Interest: indigenous education, curriculum theory and policy, history of educaiton, social studies, professional development.

Lor, Pao, Associate Professor, Education. B.S.E., M.S., University of Wisconsin-Oshkosh; Ph.D., University of Wisconsin-Madison.

Fields of interest: educational policy and analysis, teacher preparation programs, community relations, curriculum and supervision.

Poupart, Lisa, Associate Professor, Humanistic Studies-First Nations Studies. B.S., M.A., University of Wisconsin-Milwaukee; Ph.D., Arizona State.

Fields of interest: First Nations teaching and learning including Elder epistemology; decolonization and indigenous education, First Nations Studies in K-12 curriculum, historic trauma and generational healing.

Master of Science in Data Science

The University of Wisconsin - Green Bay, the University of Wisconsin – Eau Claire, the University of Wisconsin - La Crosse, the University of Wisconsin – Oshkosh, the University of Wisconsin – Stevens Point, and the University of Wisconsin – Superior in collaboration with the University of Wisconsin – Extension are offering a Master’s of Science in Data Science. This master’s program is entirely online and will teach you how to harness the power of big data using the latest tools and analytical methods. The program focuses on how to clean, organize, analyze, and interpret structured and unstructured data, deriving knowledge and communicating your discoveries clearly to stakeholders. It is a 12-course, 36 credit program and is taught by expert faculty.

This program will prepare you to how to realize value from big data and make better decisions. The insight gained could help organizations public, private or non-profit in enhancing customer engagement, optimizing operations, identifying and preventing fraud, and generating new sources of revenue among others. The program offerings are relevant for virtually any industry- health care, retail, marketing, manufacturing, transportation, communication, education, insurance, finance, security, law enforcement, and more.

Code	Title	Credits
Core Curriculum		
DS 700	Foundations of Data Science	3
DS 705	Statistical Methods	3
DS 710	Programming for Data Science	3
DS 715	Data Warehousing	3
DS 730	Big Data: High-Performance Computing	3
DS 735	Communicating About Data	3
DS 740	Data Mining	3
DS 745	Visualization and Unstructured Data Analysis	3
DS 760	Ethics of Data Science	3
DS 775	Prescriptive Analytics	3
DS 780	Data Science and Strategic Decision Making	3

DS 785	Capstone	3
Total Credits		36

Master of Science in Environmental Science and Policy

Program Overview

The University of Wisconsin-Green Bay's Environmental Science and Policy (ES&P) program provides outstanding professional training for students with interest in the scientific and/or public policy aspects of today's environmental challenges. The curriculum prepares graduates for positions in scientific, technical, and administrative organizations and agencies. The program's core focuses on the identification and analysis of environmental issues, and on developing innovative interdisciplinary approaches and solutions to problems. Students pursuing the M.S. should first seek to select one of three Degree Options that best matches their current needs and future professional ambitions: **Thesis**, **Internship**, or **Course-Based**.

The ES&P program also offers four Areas of Emphasis within each Degree Option: **Ecosystems Studies**, **Environmental Technology** and **Analysis,** Environmental Policy and Administration, and a **Personal Program of Study**. While all Areas of Emphasis seek to integrate the sciences with policy and administration, students choose to specialize in one area depending on career interests. Each emphasis has a practical orientation that engages the student in real-world problems and issues, emphasizing still sets necessary for solving critical environmental challenges. Although one emphasis option is the Personal Program of Study, our M.S. degree allows for and encourages students to design their own program around a core of required courses, regardless of their Area of Emphasis.

Our Master of Science degree fits the needs of both part-time and full-time students, and may be completed following either a thesis or non-thesis (Internship or Course-Based) degree plan. Most graduate courses in the program are offered at other times convenient for working individuals. Also, students benefit from the mix of perspectives and experiences held by the various participants in a course: Full-time students gain from the practical knowledge of working professionals, who are in turn challenged by the current theoretical knowledge of those with recent undergraduate degrees. Students like our small class sizes and the close association with faculty. Full-time students with all prerequisites often complete the program in two years, while part-time students usually take three to five.

Our program features faculty who are widely published in the professional literature, active in externally funded research, and committed to excellence in teaching. The faculty associated with the program firmly believe that environmental policy must be based on good science, but also that environmental science is ineffective unless it can be translated into sound policy decisions. The UW-Green Bay Environmental Science and Policy Graduate Program is closely connected with national, state, and local agencies, providing students with opportunities to become engaged with, and contribute to, meaningful scientific research and policy formulation. Indeed, many graduates of the program are now professionals in these agencies. The University offers modern and well-equipped facilities that support research and study in the areas of environmental science and policy. Office and laboratory computers throughout campus enable access to advanced geographic information system (GIS), statistical, and modeling software.

Field sites available for research include five University-managed natural areas, and a permanent UW-Green Bay forest research site in northern Wisconsin (Wabikon Forest Dynamics Plot), which is managed by the U.S. Forest Service as part of the Smithsonian Institution's Global Earth Observatory Network. UW-Green Bay researchers have established successful ongoing collaborations with regional governmental agencies and conservation organizations, including the U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. National Park Service, U.S. Environmental Protection Agency, Wisconsin Department of Natural Resources, U.S. Department of Agriculture, U.S. Geological Survey, The Nature Conservancy, and NEW Water (formerly Green Bay Metropolitan Sewerage District), as well as local governments and regional businesses and industries.

The UW-Green Bay Cofrin Library collection is strong in all areas of environmental studies, but particularly so in environmental policy and administration. The library provides easy access to many pertinent journals for ES&P students, and interlibrary loans are readily accessible from the broader UW System when sources are not available locally.

Switching Between Thesis, Internship and Course-Based Options

Students wishing to switch between Thesis, Internship, and Course-Based Options must amend their GR forms accordingly and, pending committee approval, can apply earned credits interchangeably toward degree completion. However, all course substitutions are subject to the approval of the Graduate Committee, Environmental Science & Policy (ES&P) Graduate Program Chair, Associate Provost for Academic Affairs, and Director of Graduate Studies. All other requirements must meet the specifications highlighted above under the "Thesis-Option", "Internship-Option" or "Course-Based Option" catalog sections.

Integrated Bachelor/Master Program

Credits earned from undergraduate courses cannot be directly applied toward the graduate degree. However, the UW-Green Bay Integrated Bachelor/Master Program in Environmental Science and Policy provides a mechanism for exceptional students to begin working on their Master's Degree during their last year of completing their Bachelor's degree in either Environmental Science or Environmental Policy and Planning. The goal of the Integrated Program is to encourage high performing students in the above undergraduate programs to continue their graduate studies at UW-Green Bay. Undergraduate students are encouraged to discuss the Integrated Program with the Environmental Science & Policy Program Chair (or other program advisors) before achieving senior status.

Admission Process and Requirements

Students wishing to enter the Environmental Science and Policy (ES&P) graduate program may apply at any time. However, applications are reviewed by the Admissions Committee once in the fall and once in the spring semester only. Priorities for research and teaching assistantships are given to students who apply by October 1 (for enrollment the following spring semester), and March 1 (for fall semester enrollment). All students are encouraged to gain a better understanding of the culture and educational environment at UW-Green Bay by visiting the campus. Graduate School staff can help arrange meetings with potential advisors, attend a graduate class, meet with other graduate students, and tour our facilities.

***Minimum admission requirements for the UW-Green Bay Environmental Science & Policy Master's Degree Program*:**

- A baccalaureate degree from an accredited institution.
- A 3.0 GPA (on a 4.0 scale) for the final two years of study.
- Completion of an undergraduate introductory statistics course, or equivalent.
- Two letters of recommendation:
  - *Preferred*: One letter from a faculty advisor, and one from an employer.
  - *Alternate option*: Two letters from faculty advisors.
- A 200-300 word Statement of Interest in the program. In a cover letter, applicants may describe their qualifications, scientific interests, research experiences, and potential faculty advisors (if seeking the Thesis Option)
- Selection of desired Degree Option (Thesis, Internship, or Course-Based)
  - Students interested in the Thesis Option need to speak with and identify in the Statement of Interest an advisor willing to supervise the thesis *at the time of application.*
  - Students interested in the Internship and Course-Based Options must contact the Chair of the ES&P Graduate Program regarding internship opportunities, expectations, and program details *at the time of application*.
- Graduate Record Examination scores are **NOT** required for application to the Environmental Science and Policy Graduate Program.
- As a proof of English proficiency, international students are required to submit a minimum TOEFL iBT score of 79, or a minimum IELTS score of 6.0 overall band (from a test date within two years). TOEFL scores must be submitted electronically via ETS. IELTS scores can be submitted electronically or by paper

Note that each Area of Emphasis (Ecosystems Studies, Environmental Technology and Analysis, Public Policy and Administration, and the Personal Program of Study) requires different skills and preparation. Therefore, prerequisite courses appropriate to the Area of Emphasis are required for admission.

Each applicant's prior academic background is evaluated by the program's Admissions Committee. Applicants who do not meet the minimum requirements may be admitted if their academic record and letters of reference indicate potential for successful completion of the program. However, these students will likely be admitted on a "provisional" basis, and could have additional requirements as part of their academic plan in order to compensate for missing course or program prerequisites. Individuals with a bachelor's degree who wish to enroll in graduate courses without pursuing a degree may enroll as special students. Undergraduate students currently enrolled in UWGB Environmental Science & Policy programs may earn undergraduate and graduate credit concurrently (see the Integrated Program below).

The Thesis Option is designed for students who wish to pursue advanced research opportunities in the broad realm of environmental science and policy or related disciplines. This option should be considered by students whose career goals will ultimately require formal and dedicated research training from a hypothesis-driven framework. Students will consult with their Major Advisor and Thesis Committee to determine a specific Area of Emphasis once the Thesis Option has been selected. Note students are initially admitted to the Environmental Science & Policy (ES&P) Program under the Course-Based Degree Option unless an advisor from the ES&P graduate faculty has agreed to supervise the student's thesis. Students are encouraged to contact the ES&P Program Chair to assist in this process. Internship and Course-Based Option students may switch to the Thesis Option if a project develops through on-campus interactions and an ES&P graduate faculty member agrees to advise that student.

Thesis Option (31 total credits)

All Thesis Option students accepted into the Environmental Science and Policy program are required to successfully complete the following set of core courses. Those who lack appropriate prerequisites may need to take additional courses to strengthen their background before taking a core class. Electives counting toward the degree are selected from the student's Area of Emphasis for a minimum of 16 credits. Selected elective courses must be unduplicated from the program's Core Requirements, and are in addition to thesis credits (see Registration for Thesis Credit below). Thesis students should enroll for a minimum of six thesis credits (ENV S&P 799) that coincide with major research activities, including writing and thesis defense preparation.

General Core Requirements (9 credits)

All students matriculated into the Environmental Science and Policy program are required to successfully complete the following set of required core courses (9 credits).

Code	Title	Credits
General Core Courses		1
ENV S&P 701	Perspectives in Environmental Science and Policy	
Choose one of the following repeatable courses (2 credits)		2
ENV S&P 715	Seminar in Ecology and Evolution	
or ENV S&P 795	Special Topics	
Environmental Science		3
ENV S&P 740	Ecology and Management of Ecosystems	
or ENV S&P 767	Environmental Technology and Analysis	
Public Policy		3
ENV S&P 713	Environmental & Natural Resource Economics	
or ENV S&P 752	Environmental Policy and Administration	
Total Credits		9

Code	Title	Credits
Thesis/Research Credits		6
ENV S&P 799	Thesis	

Completion of an Elective Area of Emphasis:

- Ecosystems Studies (p. 53)
- Environmental Policy and Administration (p. 54)
- Environmental Technology and Analysis (p. 56)
- Personal Program of Study (p. 57)

TOTAL CREDITS = 31

Selection of the Thesis Committee

Thesis Option students should select a Thesis Committee as early as possible (i.e., during the first or second semester). The Committee is responsible for supervising the student's program of study and should: 1) guide the student in selection of elective courses, 2) determine whether the student has developed and implemented a research project with the necessary rigor, and 3) make certain that the student's project is consistent with the degree and interdisciplinary context of the subject area. Thesis Committees must have at least three members, with at least two faculty from accredited universities, and where the Major Advisor is an ES&P graduate faculty member. Committee members from outside an accredited university should have a PhD or M.S. with significant work experience. Any exception to these guidelines must be approved by the ES&P Program Chair. If, during the student's course of study, he or she wishes to change committee members or advisors, the student must explain why the change is necessary or desirable. If the change is acceptable to both outgoing and incoming Committee members, the student must notify the Office of Graduate Studies in writing.

Thesis Proposal

Thesis Option students are expected to develop a thesis proposal with the committee's assistance. The thesis proposal is a formal document that provides an overview of the planned study. It must include an explanation of the research problem, issue, or situation to be addressed, its relevance or application, and the methods and resources that will be used in completing the project. On or before the successful completion of twenty-one credits of course work, the student prepares the proposal, using the *Guidelines for Preparing the Proposal* provided by the Office of Graduate Studies. A copy of the *Guidelines* and *Approval of Thesis or Project Proposal* (GR-2 Form) are available on the Office of Graduate Studies website www.uwgb.edu/graduate. The thesis proposal must be successfully defended to the graduate committee in both oral and written formats. Once approved, a copy of the approved proposal and the signed GR-2 Form are sent to the Associate Provost for Academic Affairs/Director of Graduate Studies for final approval and inclusion in the student's official file. Approval of the thesis proposal places the student into candidacy for the degree.

Registration for Thesis Credit

Thesis Option students must take a minimum of 6 thesis credits in addition to the program core and electives. Students may only register for thesis credits with an approved proposal on file. Enrollment for thesis credits may be for one to six credits per term and may be spread over several terms as appropriate. *A student must be registered for a minimum of one thesis credit or the thesis continuation course (ES&P 693) during the term in which a thesis defense is scheduled.*

Thesis Defense

The thesis defense is an open event attended by the candidate's graduate committee and other interested individuals. The defense helps the committee to judge whether the student has adequately understood and seriously attempted to solve a significant problem. To schedule the thesis defense, the student must file the *Request for Thesis Defense/Project Presentation* (GR-3 Form) with the Office of Graduate Studies at least one week in advance of the proposed date. Prior to the thesis defense, the Office of Graduate Studies will provide *Approval of Thesis Defense or Project Presentation* (GR-4

Form) to the major professor. After a satisfactory defense, the major professor and committee members sign the form and return it to the Office of Graduate Studies. A dissenting signature must be accompanied by an explanation from the dissenting member. A candidate is considered to have passed his or her thesis defense only after all issues have been resolved and the completed GR-4 Form is returned to the Office of Graduate Studies.

Thesis Document Preparation

The thesis is a formal document and must be prepared to conform to UW-Green Bay library requirements and graduate program standards. In preparing the thesis document, students should carefully follow the *Style and Format Requirements for the Master of Science Thesis*. Copies of the guidelines and a copy of the completed *Approval of Thesis or Project Proposal* (GR-2 Form) are mailed to students along with notice of proposal approval. It is the student's responsibility to prepare and present the final document in an acceptable format. Several writers' guides and style manuals are available for guidance.

Thesis Document Deposition

1. Upon satisfactory completion of the thesis defense, the candidate is required to supply the Office of Graduate Studies with one bound copy of his or her thesis. A digital copy will also be archived in the Cofrin Library and posted to the library website. A properly formatted title page and one signed Grant of Permission and Copyright form is required for archiving purposes.
2. The Office of Graduate Studies will review the thesis for style and formatting. The Director of Graduate Studies will sign the title page or return the document for further revisions.
3. When the thesis is approved, the Office of Graduate Studies will arrange for the manuscript to be printed and bound. The candidate is responsible for thesis printing, binding and shipping costs. These fees must be paid (by check or cash) to the Office of Graduate Studies prior to binding. If the candidate wishes, additional bound copies can be ordered at the same per copy cost.
4. Diplomas are not awarded until all degree requirements are met. This includes certification by the Director of Graduate Studies that the thesis conforms to all UW-Green Bay library requirements, that the graduate program standard thesis defense has taken place and that the candidate has paid his or her thesis related fees.
5. Upon satisfactory complete of the thesis defense, the major professor files the Approval of Thesis Defense or Project Presentation (GR-4 Form) with the Office of Graduate Studies. The student then has 20 calendar days after the last day of final exams to submit their final thesis/project document to the Office of Graduate Studies and 42 calendar days after the last day of final exams for all other graduation requirements to be completed and verified.

Review of Steps Toward the Degree

- The candidate is admitted to the ES&P graduate program.
- The student submits an Official Declaration of Master's Degree (GR-1 Form) to the Office of Graduate Studies no later than the end of the semester in which the first six graduate credits are completed. This confirms the student's area of emphasis in the program, their intention to pursue a thesis program plan, and pairs a student with a major professor/thesis adviser. Thesis students should begin to develop a thesis committee and thesis proposal in collaboration with their major professor.
- On or before the successful completion of twenty-one credits of course work, the student completes a thesis proposal. The proposal is reviewed by the thesis committee and, if approved, submitted to the Office of Graduate Studies, by the major professor, using the Approval of Thesis or Project Proposal (GR-2 Form).
- The student may then register for thesis credit (ENV S&P 799) and work on the thesis project.
- When the project and thesis document is nearly complete, the student schedules the thesis defense by completing the Request for Thesis Defense/ Project Presentation (GR-3 Form). For graduation in the fall and spring semesters, the thesis defense must be held before the last day of final exams in a given semester.
- The student files an Application for Graduation with the Registrar's Office through the Student Information System (SIS) prior to November 1 for fall semester graduates, and April 1 for spring and summer semester graduates.
- The scheduled thesis defense takes place. Upon satisfactory completion of the thesis defense, the major professor files the Approval of Thesis Defense or Project Presentation (GR-4 Form) with the Office of Graduate Studies. The student then has 20 calendar days after the last day of final exams to submit their final thesis/project document to the Office of Graduate Studies and 42 calendar days after the last day of final exams for all other graduation requirements to be completed and verified. The final format of the thesis report is reviewed through the Office of Graduate Studies. Student submits to the Office of Graduate Studies the required number of thesis copies for final approval and deposition in University library.
- Degree is awarded and graduate receives diploma.

The Internship-Based Option M.S. is designed for students whose career goals require postgraduate education and conceptual training in environmental science and policy and related fields, but not formal research experience or training. The Internship Option is appropriate for students seeking applied experience in the field or laboratory, generally outside of the university setting. Examples of students that should consider this option include those seeking to blend environmental science and policy with sustainable business applications, outreach and education, policy development and environmental regulation, promotion of clinical environmental health and regulation of environmental contaminants, environmental consulting, invasive species management, ecosystem restoration or landscape design.

Internship Option graduate students are expected to locate, pursue and complete an internship in a setting most aligned with their future career goals. The internship must incorporate a significant independent project to complement coursework. Examples of hosts for internship-based projects include

local business, federal agencies (Fish and Wildlife Service, Geological Survey) or non-profit organizations. Internship Option students are encouraged to explore various internship opportunities, internship partners, and expected project outcomes with the ES&P Graduate Program Chair.

Internship Option (34 total credits)

Internship Option students accepted into the Environmental Science and Policy program are required to successfully complete the following set of core courses. Those who lack appropriate prerequisites may need to take additional courses to strengthen their background before taking a core class. Electives counting toward the degree can be selected from the selected area of emphasis (e.g., Ecosystem Studies, Environmental Technology and Analysis) for a minimum of 16 credits. Selected elective courses must be unduplicated from the program's Core Requirements and in addition to internship credits. Internship Option students should enroll for a minimum of 6 internship credits that coincide with internship activities. Successful completion of the internship, committee approval of achieved internship objectives and outcomes, and a successful public oral defense of the internship experience will result in the awarding of the Master's of Science degree.

General Core Requirements (9 credits)

All students matriculated into the Environmental Science and Policy program are required to successfully complete the following set of required core courses (9 credits).

Code	Title	Credits
General Core Courses		1
ENV S&P 701	Perspectives in Environmental Science and Policy	
Choose one of the following repeatable courses (2 credits)		2
ENV S&P 715	Seminar in Ecology and Evolution	
or ENV S&P 795	Special Topics	
Environmental Science		3
ENV S&P 740	Ecology and Management of Ecosystems	
or ENV S&P 767	Environmental Technology and Analysis	
Public Policy		3
ENV S&P 713	Environmental & Natural Resource Economics	
or ENV S&P 752	Environmental Policy and Administration	
Total Credits		9

Code	Title	Credits
Internship Option		9
ENV S&P 797	Internship	
ENV S&P 763	Capstone in Environmental Science and Policy	

Completion of an Elective Area of Emphasis:

- Ecosystems Studies (p. 53)
- Environmental Policy and Administration (p. 54)
- Environmental Technology and Analysis (p. 56)
- Personal Program of Study (p. 57)

TOTAL CREDITS = 34

Selection of the Internship Committee

Environmental Science and Policy Internship Option students should select a committee during the first or second semester. The internship committee is responsible for supervising the student's program of study and should: 1) guide the student in selection of courses, 2) determine whether the student has selected or completed an internship with the appropriate rigor, and 3) make certain that the student's internship is consistent with the degree and confronts the interdisciplinary dimensions of the subject area. The Internship Option committee is expected to consist of three individuals: the main internship supervisor (external or internal to UWGB), one member of the ES&P graduate faculty, and the Chair of the ES&P Graduate Program.

Internship Proposal

Internship-Based Option students are expected to develop a proposal with the committee's assistance. The internship proposal is a formal document that provides an overview of the planned project. It must include an explanation of the problem, issue, or situation to be addressed, its relevance or application, and the methods and resources that will be used in completing the project. On or before the successful completion of twenty-one credits of course work, the student prepares the proposal, using the *Guidelines for Preparing the Proposal* provided by the Office of Graduate Studies. A copy of the *Guidelines* and *Approval of Thesis or Project Proposal* (GR-2 Form) are available on the Office of Graduate Studies website www.uwgb.edu/graduate. The internship proposal must be successfully defended to the graduate committee in both oral and written formats. Once approved, a copy of

the approved proposal and the signed GR-2 Form are sent to the Associate Provost for Academic Affairs/Director of Graduate Studies for final approval and inclusion in the student's official file. Approval of the thesis proposal places the student into candidacy for the degree.

Registration for Internship Credit

Internship Option students must take a minimum of six internship credits in addition to the program core and electives. Students may only register for internship credits with an approved project proposal on file. Ideally, the duration of an internship should be part-time (10-20 hours per week) for a full academic calendar year or full time (30-40 hours per week) during a single summer semester. Enrollment for internship credits should not exceed three credits per semester during the regular academic year or six credits for a summer long internship.

Internship Project Defense

Successful completion of the Internship Option M.S. involves two essential requirements. First, the student must satisfactorily complete a public-presentation of the internship project to be attended by the candidate's graduate committee and other interested individuals. The defense permits the committee to ascertain whether the student has adequately processed course requirements and has meaningfully achieved the goals of the project-based internship. To schedule the internship defense, the student must file the *Request for Thesis Defense/Project Presentation* (GR-3 Form) with the Office of Graduate Studies at least one week in advance of the proposed date. The internship project defense should be scheduled during one of the academic terms unless other specific arrangements are acceptable to all parties. Prior to the defense, the Office of Graduate Studies will provide *Approval of Thesis Defense or Project Presentation* (GR-4 Form) to the major professor. Second, students must complete a final report to be reviewed by the committee before the defense. After a satisfactory defense of both oral and written materials, the major professor and committee members sign the form and return it to the Office of Graduate Studies. A dissenting signature must be accompanied by an explanation from the dissenting member. A candidate is considered to have passed his or her thesis defense only after all issues have been resolved and the completed GR-4 Form is returned to the Office of Graduate Studies.

Internship Document Preparation

The internship project (i.e., technical report, website, multimedia tool, public outreach and educational documents, data analysis, etc.) should be converted into a formal document that conforms with UW-Green Bay library requirements and graduate program standards. In preparing the internship project document, students should attempt to follow the *Style and Format Requirements for the Master's of Science Thesis*. Copies of the guidelines and a copy of the completed *Approval of Thesis or Project Proposal* (GR-2 Form) are mailed to students along with notice of proposal approval. The student is responsible for working with the Office of Graduate Studies to prepare and present the final document in an acceptable format. Several writers' guides and style manuals are commercially available. Students should also carefully follow the guidelines provided by the internship committee.

Internship Document Deposition

1. Upon satisfactory completion of the internship project defense, the candidate is required to supply two copies of his or her internship document, including two copies of any audio/visual components and one additional copy of a title page and abstract, to the Office of Graduate Studies. After the major professor signs the approved document, the Director of Graduate Studies reviews and signs the internship document or returns it for further revision. Two copies of the final document are forwarded with a binding fee ($12 per copy, but subject to change), collected from the student, to the UW-Green Bay library as a permanent record of the student's scholarly or creative activity. If the candidate wishes, additional copies provided by the student may be bound at the same per copy fee, payable to UW-Green Bay.
2. Diplomas are not awarded until all degree requirements are met. This includes certification by the Director of Graduate Studies that the successfully defended internship document conforms to all UW-Green Bay library requirements and graduate program standards.. Upon satisfactory completion of the thesis defense, the major professor files the *Approval of Thesis Defense or Project Presentation* (GR-4 Form) with the Office of Graduate Studies. The student then has 20 calendar days after the last day of final exams to submit their final thesis/project document to the Office of Graduate Studies and 42 calendar days after the last day of final exams for all other graduation requirements to be completed and verified.
3. The final format of the internship report is reviewed through the Office of Graduate Studies. The student submits to the Office of Graduate Studies the required number of thesis copies for final approval and deposition in University library.
4. Degree is awarded and graduate receives diploma.

Review of Steps Toward the Degree

- The candidate is admitted to the ES&P graduate program.
- The student submits an Official Declaration of Master's Degree (GR-1 Form) to the Office of Graduate Studies no later than the end of the semester in which the first six graduate credits are completed. This confirms the student's area of emphasis and their intention to pursue the internship option.
- Internship option students should begin to identify potential internship or project opportunities.
- Once an internship project has been identified, students should begin formulating their official internship project proposal, culminating in the submission of the Approval of Thesis or Project Proposal (GR-2) Form to the Office of Graduate Studies.
- During the semester(s) in which the internship and project are completed, students should enroll for a minimum of 6 credits of ENV S&P 797 Internship (3 credits per regular semester or 6 credits for a summer long internship).
- Over the course of the internship, students should prepare and finalize their project outcomes and documents, and develop an oral presentation/defense delivered to the committee and public.

- Degree requirements are fulfilled with submission of an Approval of Thesis Defense or Project Presentation (GR-4 Form) to the Office of Graduate Studies. The student then has 42 calendar days after the last day of final exams to 1) submit their Approval of Thesis Defense or Project Presentation (GR-4 Form) to the Office of Graduate Studies and 2) complete and verify all other graduation requirements.
- The student files an Application for Graduation with the Registrar's Office through the Student Information System (SIS) prior to November 1 for fall semester graduates, and April 1 for spring and summer semester graduates. Upon completion of this step, the degree is awarded and graduate receives diploma.

The Course-Based Option is designed to be the most flexible pathway towards earning the Environmental Science and Policy Master's Degree. This option is particularly appropriate for professionals who are already employed in primary or secondary education (e.g., high school biology) or applied environmental science or public policy fields. A Master's degree obtained via the Course-Based Option will be particularly valuable for individuals interested in teaching opportunities at the community college level; development of advanced skills in environmental consulting, geographic information technology, environmental data analysis, etc.; and a deeper understanding of environmental policy and policy implementation. Course-Based Option students may further wish to build a more competitive foundation for pursuing related careers in business sustainability, ecological restoration and various medical fields.

Course-Based Option (37 total credits)

Course-Based students must fulfill the following core requirements. Electives counting toward the degree may be selected from any area of emphasis for a minimum of 17 credits. Course-Based students may also seek to further personalize their degree in the areas of education, business, engineering or mathematics. Thus, Course-Based students may substitute a maximum of 6 elective credits (i.e., two 3 credit classes) from other University of Wisconsin – Green Bay campus programs. Elective course substitutions must be approved by the ES&P Graduate Chair and the courses cannot be duplicated from the program's Core Requirement. There is no formal defense or written exam required to earn the Master's of Science degree under this option. However, Course-Based students are encouraged to seek elective credits through independent research or internship opportunities with graduate faculty.

General Core Requirements (9 credits)

All students matriculated into the Environmental Science and Policy program are required to successfully complete the following set of required core courses (9 credits).

Code	Title	Credits
General Core Courses		1
ENV S&P 701	Perspectives in Environmental Science and Policy	
Choose one of the following repeatable courses (2 credits)		2
ENV S&P 715	Seminar in Ecology and Evolution	
or ENV S&P 795	Special Topics	
Environmental Science		3
ENV S&P 740	Ecology and Management of Ecosystems	
or ENV S&P 767	Environmental Technology and Analysis	
Public Policy		3
ENV S&P 713	Environmental & Natural Resource Economics	
or ENV S&P 752	Environmental Policy and Administration	
Total Credits		9

Course-Based Requirements (28 credits)

Code	Title	Credits
Required Core:		3
ENV S&P 763	Capstone in Environmental Science and Policy	
One additional seminar credit:		1
ENV S&P 715	Seminar in Ecology and Evolution	
ENV S&P 795	Special Topics	
One of the following quantitative courses:		4
ENV S&P 755	Environmental Data Analysis	
or ENV S&P 760	Social Research Methods	
One additional environmental science course (not already used in the core):		3
ENV S&P 740	Ecology and Management of Ecosystems	
ENV S&P 743	Landscape Ecology	
ENV S&P 767	Environmental Technology and Analysis	

Elective requirements:	17
Choose at least 17 credits from any of the program emphases	
Total Credits	28

Students pursuing the Course-Based Option are not required to form a committee of advisors. However, Course-Based Option students are encouraged to speak with the ES&P Graduate Chair (or any other member of the ES&P graduate faculty) for development of the course-based program.

Review of Steps Toward the Degree

- The candidate is admitted to the ES&P graduate program.
- The student submits an Official Declaration of Master's Degree (GR-1 Form) to the Office of Graduate Studies no later than the end of the semester in which the first six graduate credits are completed. This confirms the student intention to pursue the Course-Based Option and alerts the ES&P Graduate Chair of this decision.
- The Course-Based student completes 37 credit hours, 9 credits from the program core and 28 elective credits from any area of emphasis.
- The student registers to graduate and the degree is awarded and graduate receives diploma.

One of the primary goals of the Environmental Science and Policy (ES&P) graduate program is to prepare technically competent and creative individuals for advanced professional positions in the public or private sectors. Individuals pursing such career objectives will focus on course work in the emphases of Ecosystems Studies or Environmental Technology and Analysis. Another objective of the ES&P graduate program is to prepare highly skilled and imaginative individuals for management and policy-making positions in government, nonprofit organizations and the private sector. Individuals with such career objectives will focus on environmental policy course work in the emphasis of Environmental Policy and Administration. Students will be prepared to deal with a variety of environmental problems and to pursue further graduate work in this or related areas. An additional option is to develop a "personal program of study" fitting to the specific career interests of the student. In addition to the general core requirements described above, students will select a program of study from one of the areas of emphasis described below.

Areas of Emphasis and Requirements

Area of emphases and credit loads are described in detail below (credits are unduplicated by the program core). Note that some undergraduate courses are cross-listed as graduate courses and require only graduate status to enroll. It is strongly recommended that a student speak with the professor assigned to the course prior to enrolling to ensure that the student is adequately prepared to succeed in the course. Personal programs of study must conform to Environmental Science and Policy program guidelines and be approved in advance by the student's graduate committee, the Environmental Science and Policy program chair, and the Associate Provost for Academic Affairs and Director of Graduate Studies.

- Ecosystems Studies (p. 53)
- Environmental Policy and Administration (p. 54)
- Environmental Technology and Analysis (p. 56)
- Personal Program of Study (p. 57)

Faculty

Chen, Franklin, Associate Professor, Natural and Applied Sciences (Chemistry). B.A. (1970) National Taiwan University (Taiwan); Ph.D. (1977) Princeton University.

Fields of interest: organic contaminant remediation; rock erosion effects (tidal wave and bubble implosion effects on rock surfaces); mesoporous materials with gas phase contaminant adsorption properties; polymeric electrolytes with potential industrial applications; sonochemistry that may enhance catalytic ability.

Currier, Ryan, Assistant Professor, Natural and Applied Sciences (Geoscience). B.S. Geoscience, Michigan State University; M.A. and Ph.D. Magma Dynamics, Johns Hopkins University.

Fields of interest: transport phenomena of magma; magmatic ore formation; Antarctic geology.

Davis, Gregory J., Professor, Natural and Applied Sciences (Mathematics). B.S. (1981) UW-Green Bay; M.A. (1985), Ph.D. (1987) Northwestern.

Fields of interest: dynamical systems; mathematical modeling of biological and physical systems; cliff swallow-house sparrow species dynamics.

Dornbush, Mathew, Associate Professor, Natural and Applied Sciences (Biology). B.A. (1998) Augustana College; M.S. (2001), Ph.D. (2005) Iowa State University.

Fields of interest: soil ecology; plant-soil microbial interactions; soil microbial ecology; ecosystem carbon cycling; plant ecology; invasive species; restoration ecology.

Draney, Michael L., Professor, Natural and Applied Sciences (Biology). B.S. (1989) New Mexico State University; M.S. (1992), Ph.D. (1997) Univ. of Georgia.

Fields of interest: inventory, monitoring and assessment techniques for terrestrial and wetland invertebrates, taxonomy, and conservation of spiders and ground-dwelling arthropods.

Fermanich, Kevin J., Professor, Natural and Applied Sciences (Geoscience). B.S. (1985) UW-Stevens Point; M.S. (1988), Ph.D. (1995) UW-Madison.

Fields of interest: nonpoint pollution; soil management; watershed management, groundwater, contaminant fate and transport; vadose zone processes; community environmental monitoring.

Forsythe, Patrick S., Assistant Professor, Natural and Applied Sciences (Biology). B.S. (2000), M.S. (2003) Eastern Illinois University, Ph.D. (2010) Michigan State University.

Fields of interest: fisheries biology and ecology with emphasis on ecosystems of the Great Lakes region; mating systems and early life history dynamics of fishes; behavioral ecology and species interactions; population/community ecology; landscape ecology; conservation biology; dynamic evolutionary processes that lead to adaptation.

Grubisha, Lisa C., Assistant Professor, Natural and Applied Sciences (Biology). B.S. (1988) University of Wisconsin-Milwaukee, M.S. (1998) Oregon State University, Ph.D. (2005) University of California-Berkeley.

Fields of interest: Fungal ecology and evolution, Microbial diversity and function, Conservation Biology, Population Genetics, Phylogenetics.

Helpap, David, Assistant Professor, Public and Environmental Affairs (Political Science). B.S. (2006) Political Science, University of Wisconsin-Green Bay; M.A. (2008), Ph.D. (2012) Political Science, University of Wisconsin-Milwaukee.

Fields of interest: state and local government; urban politics; brownfield redevelopment; public management and budgeting; public policy

Howe, Robert W., Barbara Hauxhurst Cofrin Professor, Natural and Applied Sciences (Biology); Director, Cofrin Center for Biodiversity. B.S. (1974) Notre Dame; M.S. (1977), Ph.D. (1981) UW-Madison.

Fields of interest: terrestrial ecology and conservation biology; ecological indicators; bird population dynamics; population monitoring; landscape ecology; conservation design residential development; disease ecology; black bear ecology; evolutionary ecology.

Intemann, Jeremy J., Associate Professor, Natural and Applied Sciences (Chemistry). B.S. (2006) University of Northern Iowa, Ph.D. (2012) Iowa State University.

Fields of interest: synthesis of conjugated polymers and small molecules for use in organic electronics.

Katers, John F., Professor, Natural and Applied Sciences (Engineering). B.S. (1991), M.S. (1993) UW-Green Bay; Ph.D. (1996) Marquette.

Fields of interest: waste management; recycling, pollution prevention, renewable energy, water and waste water treatment.

Luczaj, John, Associate Professor, Natural and Applied Sciences (Geoscience). B.S. (1993) University of Wisconsin-Oshkosh; M.S. (1995) University of Kansas; Ph.D. (2000) Johns Hopkins University.

Fields of interest: fluid inclusion in minerals; water-rock interaction in sedimentary rock; groundwater contamination; karst geology and hydrogeology; stratigraphy of Paleozoic sedimentary rocks.

Mahfuz, Mohammad Upal, Assistant Professor, Natural and Applied Sciences (Engineering Technology). B.S. (2002) Bangladesh University of Engineering and Technology (BUET), Bangladesh, M.S. (2008) University of Calgary, Canada, M.Engg. (2005) Asian Institute of Technology, Thailand, Ph.D. (2014) University of Ottawa, Canada.

Fields of interest: nano scale communication systems, wireless communication and positioning systems, emerging and sustainable technologies.

Malysheva, Tetyana, Assistant Professor, Natural and Applied Sciences (Math). B.S., M.S. Computer Sciences, National Technical University of Ukraine “KPI”, Ph.D., M.A. Mathematics, University of Oklahoma; Ph.D. Physical and Mathematical Sciences - Computational Mathematics, Institute of Mathematics of the National Academy of Sciences of Ukraine.

Fields of interest: theory and applications of partial differential equations, numerical analysis, control of distributed parameter systems, continuum mechanics, inverse problems.

Meyer, Steven J., Associate Professor, Natural and Applied Sciences (Geoscience). B.S. (1983) Northern Illinois; M.S. (1986), Ph.D. (1990) University of Nebraska.

Fields of interest: climate change; the effects of climate change on natural resources; climate related decision making; long-range climate outlooks and their uses; science education.

Olson Hunt, Megan J., Assistant Professor, Natural and Applied Sciences (Statistics). B.A., B.S.T. (2007) Winona State University, Ph.D. (2014) University of Pittsburgh.

Fields of interest: Theoretical issues in missing data, applied environmental and neurological data analyses, teaching all levels of statistics.

Phoenix, Laurel, Associate Professor, Public and Environmental Affairs (Planning). B.S. (1992), M.S. (1994) Colorado at Boulder; Ph.D. (2001) SUNY College of Environmental Science and Forestry.

Fields of interest: water resources management; drinking water quality; anti-environmentalism; water and waste water infrastructure; rural environmental planning.

Stoll, John R., Professor, Public and Environmental Affairs (Economics). B.S. (1973) UW-Green Bay; M.S. (1977), Ph.D. (1980) Kentucky.

Fields of interest: natural resource and environmental economics; quantitative methods; nonmarket valuation methodology; economics of recreation and leisure; cost-benefit analysis, regional economics, fisheries economics, value of nonconsumptive resource usage.

Terry, Patricia A., Professor, Natural and Applied Sciences (Engineering). B.S. (1989), M.S. (1991) Texas-Austin; Ph.D. (1995) University of Colorado-Boulder.

Fields of interest: general water remediation; environmental separations; ion exchange processes; removal of heavy metals, chromates, phosphates, and nitrates from water.

Weinschenk, Aaron C., Assistant Professor, Public and Environmental Affairs. B.A., B.S. (2007) University of Wisconsin-Green Bay, M.A. (2009), Ph.D. (2013) University of Wisconsin-Milwaukee,

Fields of interest: American Government and Politics; Political Behavior; Campaigns and Elections; Political Psychology; Voting Behavior; Political Participation; Statistics; Research Design and Methodology.

Wheat, Elizabeth, Assistant Professor, Public and Environmental Affairs (Political Science). B.A. (2002) Psychology, Alma College; M.P.A. (2004) Comparative Environmental Policy, Indiana University; Ph.D. (2013) Political Science, Western Michigan University.

Fields of interest: environmental law, environmental justice, civil rights, wildlife smuggling, international organizations.

Wolf, Amy, Associate Professor, Natural and Applied Sciences (Ecology). B.S. (1989), M.S. (1993) UW-Green Bay; Ph.D. (1998) University of California-Davis.

Fields of interest: conservation biology, plant-animal interactions, restoration ecology, plant population ecology, ornithology; pollination ecology of rare plants, butterfly conservation and monitoring, population genetics of rare plants, invasive wetland plants, conservation of native bees.

Zorn, Michael E., Professor, Natural and Applied Sciences (Chemistry). B.S. (1993) UW-Green Bay; Ph.D. (1997) UW-Madison.

Fields of interest: development of photocatalytic and catalytic methods for degradation of environmentally relevant compounds; development of enhancement of experimental methods (including sensors) for the analysis of environmental samples.

Emeriti Faculty

Day, Harold Jack, Professor, Natural and Applied Sciences (Engineering). B.S. (1952), M.S. (1953), Ph.D. (1963) UW-Madison.

Fields of interest: water resources, fluid mechanics, hydrology and related applications of engineering to society and technology; regional water quality and associated land management and flood plain management; resource management.

Harris, Hallet J., Professor, Natural and Applied Sciences (Biology). B.A. (1961) Coe College; M.S. (1965), Ph.D. (1966) Iowa State.

Fields of interest: animal and wetland ecology; management of coastal areas; wildlife management; ecological risk assessment.

Kraft, Michael E., Herbert Fisk Johnson Professor, Public and Environmental Affairs (Political Science). B.A. (1966) UC-Riverside; M.A. (1967), Ph.D. (1973) Yale.

Fields of interest: American politics and government; public policy analysis; Congress; environmental policy and politics in the U.S.; sustainable communities; politics of nuclear waste disposal; business and environmental policy; environmental information disclosure.

Moran, Joseph M., Professor, Natural and Applied Sciences (Earth Science). B.A. (1965), M.S. (1967) Boston College; Ph.D. (1972) UW-Madison.

Fields of interest: nature of climatic change, air pollution meteorology; applications of paleoclimatic reconstruction techniques to Glacial-age evidence; environmental implications of current climatic changes; quaternary climatology; geology.

Niedzwiedz, William R., Professor, Public and Environmental Affairs (Geography). B.S. (1969), M.S. (1972) Massachusetts; Ph.D. (1981) Virginia Polytechnic.

Fields of interest: geographic information systems; aerial photo interpretation; coastal management; conservation design of landscapes; environmental impact.

Sager, Paul E., Professor, Natural and Applied Sciences (Biology). B.S. (1959) Michigan; M.S. (1963), Ph.D. (1967) UW-Madison.

Fields of interest: ecology of aquatic communities including nutrient studies in the phytoplankton of freshwater lakes; eutrophication of lakes; ecological effects of nutrient enrichment and water quality deterioration; limnology.

Scheberle, Denise L., Professor, Public and Environmental Affairs (Political Science). B.S. (1982), M.P.A. (1984) University of Wyoming; Ph.D. (1991) Colorado State University.

Fields of interest: environmental policy and law; policy implementation and formation; federal-state relationships in environmental programs; public administration; intergovernmental relations; public policy.

Stieglitz, Ronald D., Professor, Natural and Applied Sciences (Earth Science-Geology). B.S. (1963) UW-Milwaukee; M.S. (1967), Ph.D. (1970) Illinois.

Fields of interest: environmental geology; stratigraphic analysis; sedimentary geology; applications of geology to land use problems; ground water resources.

Wenger, Robert B., Professor, Natural and Applied Sciences (Mathematics). B.S. (1958) Eastern Mennonite; M.A. (1962) Pennsylvania State; Ph.D. (1969) Pittsburgh.

Fields of interest: application of mathematical models to environmental problems such as solid waste management and water quality management; ecosystem risk assessment and graph-theoretic approaches to the study of ecosystem stressors.

Adjunct Faculty

Katz, Chris, Adjunct Assistant Professor, (Veterinary Medicine). B.S. (1977), D.V.M. (1981) Iowa State.

Fields of interest: Black Bear research, wildlife and exotic pet medicine, wildlife anesthetization for research.

Medland, Vicki, Associate Director, Cofrin Center for Biodiversity (Biology). B.S. (1984) UW-Madison; M.S. (1989) New Mexico State University; Ph.D. (1997) University of Georgia.

Fields of interest: wetland ecology, evolutionary and behavioral ecology of aquatic invertebrate and zooplankton.

Reed, Tara, Adjunct Associate Professor, Natural and Applied Sciences (Biology). B.A. (1980) Whitworth; M.S. (1995) Oregon State; Ph.D. (1999) UW-Madison.

Fields of interest: impacts of anthropogenic activities and exotic invasions on aquatic ecosystem; changes in the Green Bay ecosystem following zebra mussel invasion; evaluating the changes in macroinvertebrate community structure downstream following dam removal.

Robertson, Dale, Adjunct Associate Professor, U.S. Geological Survey (Hydrology). B.S. (1981) St. Norbert College; M.S. (1984), Ph.D. (1989) UW-Madison.

Fields of interest: physical limnology; water-quality modeling; influence of environmental factors, watershed management strategies, and in-lake management alternatives on the water quality rivers and lakes; ice as climatic indicators; effects of artificial destratification; regional loading estimates; meteorological and lake physical measurements; air-water interactions.

Robinson, Patrick, Co-Director & Environmental Studies Specialist, UWEX Environmental Resources Center; Affiliate Cofrin Center for Biodiversity. B.S. (1994), M.S. (1996) UW-Green Bay; Ph.D. (2011) UW-Madison

Fields of interest: fresh water estuaries, wetlands, integration of social science into ecological research and management.

Environmental Science and Policy Emphasis

One of the primary goals of the Environmental Science and Policy (ES&P) graduate program is to prepare technically competent and creative individuals for positions in the public or private sectors. Individuals with such career objectives will focus on environmental science course work in the emphases of Ecosystems Studies or Environmental Technology and Analysis. Another objective of the ES&P graduate program is to prepare highly skilled and imaginative individuals for management and policy-making positions in government, nonprofit organizations and the private sector. Individuals with such career objectives will focus on environmental policy course work in the emphasis of Environmental Policy and Administration. Students will be prepared to deal with a variety of environmental problems and to pursue further graduate work in similar or related areas. A fourth option is to develop a “personal program of study” more fitting to the career interest of the student. In addition to the general core requirements described above, students will select a program of study from one of the areas of emphasis described below.

Areas of Emphasis and Requirements

Area of emphases and credit loads are described in detail below (credits are unduplicated by the program core). Note that some undergraduate courses are cross-listed as graduate courses and require only graduate status to enroll. It is strongly recommended that a student speak with the professor assigned to the course prior to enrolling to ensure that the student is adequately prepared to succeed in the course. Personal programs of study must

conform to Environmental Science and Policy program guidelines and be approved in advance by the student's graduate committee, the Environmental Science and Policy program chair, and the Associate Provost for Academic Affairs and Director of Graduate Studies. These programs must include the entire 18-credit program core requirements, at least one 3-4 credit quantitative course ENV S&P 755 or ENV S&P 760 and include a minimum of 34 total credits. It is possible, even necessary depending on area requirements, that students will include one or two four-credit statistics courses in their academic program. In those cases, only seven credits would be needed in one semester which could be satisfied by ENV S&P 715 or ENV S&P 795, or an independent study or internship. If a regular course is selected, the academic program would include a total of 36 credits.

Ecosystems Studies Emphasis

Master of Science in Environmental Science and Policy

Students who select the Ecosystems Studies emphasis may study general features of ecosystems such as nutrient regeneration, productivity, or trophic relationships. They may also focus on specific questions related to endangered species, predation and competition. Natural, managed, and disturbed ecosystems are examined in classroom and field activities. Studies on aquatic systems take advantage of the University's location on Green Bay, participation in the University of Wisconsin Sea Grant Program, and the on-campus Cofrin Center for Biodiversity. The University's proximity to large areas of northern forests and the Door County Peninsula provides convenient locations for the study of diverse ecosystems. The Ecosystems Studies area of emphasis prepares students to:

- design and conduct scientific investigations;
- collect, evaluate, and interpret data;
- make responsible decisions to implement appropriate technologies and strategies to solve environmental problems; and
- effectively communicate the results of environmental studies to other scientists, decision makers and the general public.

Graduates typically work as scientists, environmental specialists, or project managers with industry, commercial laboratories, engineering firms, or government agencies, where their work involves analysis, research, consulting, compliance, or enforcement. Students who pursue the Ecosystems Studies area of emphasis are expected to have completed biology courses beyond introductory courses, typically the equivalent to a minor or major in biology (taken elsewhere or prior to entrance). These courses should include an ecology course.

Ecosystems Studies

Emphasis Prerequisites

Students who pursue the Ecosystems Studies area of emphasis are expected to have completed biology courses beyond introductory courses, typically the equivalent to a minor or major in biology (taken elsewhere or prior to entrance). These courses should include an ecology course.

Code	Title	Credits
Required Quantitative Course		4
ENV S&P 755	Environmental Data Analysis	
Choose one of the following required ecology courses:		3
ENV SCI 669	Conservation Biology	
ENV S&P 740	Ecology and Management of Ecosystems	
ENV S&P 743	Landscape Ecology	
ENV S&P 749	Wetland Ecology and Management	
Additional Courses - complete 9 credits		9
Choose any combination from the courses listed here or above.		
Biology:		
BIOLOGY 510	Plant Biodiversity	
BIOLOGY 511	Plant Physiology	
BIOLOGY 512	Mycology	
BIOLOGY 520	Field Botany	
BIOLOGY 522	Environmental Microbiology	
BIOLOGY 542	Ornithology	
BIOLOGY 543	Mammalogy	
BIOLOGY 555	Entomology	

BIOLOGY 557	Marine Biology	
BIOLOGY 601	Fish and Wildlife Population Dynamics	
BIOLOGY 602	Advanced Microbiology	
Environmental Science:		
ENV SCI 520	The Soil Environment	
ENV SCI 530	Hydrology	
ENV SCI 601	Stream Ecology	
ENV SCI 603	Limnology	
Environmental Policy and Planning:		
PU EN AF 522	Environmental Planning	
PU EN AF 578	Environmental Law	
PU EN AF 580	Global Environmental Politics and Policy	
PU EN AF 615	Public and Nonprofit Budgeting	
ENV S&P 713	Environmental & Natural Resource Economics	
ENV S&P 752	Environmental Policy and Administration	
Math and Statistics:		
ENV S&P 760	Social Research Methods	
MATH 529	Applied Regression Analysis	
MATH 630	Design of Experiments	
Seminar and Special Topics:		
ENV S&P 715	Seminar in Ecology and Evolution	
ENV S&P 795	Special Topics	
Internship or Thesis Option:		6-9
ENV S&P 763 & ENV S&P 797	Capstone in Environmental Science and Policy and Internship	
or ENV S&P 799	Thesis	
Total Credits		22-25

Environmental Policy and Administration Emphasis

Master of Science in Environmental Science and Policy

Students who select the Environmental Policy and Administration emphasis may study the characteristics and operation of government institutions; organizational policy, design and evaluation; and substantive policies in regulation, environmental protection, science and technology, and energy and natural resources. Courses emphasize environmental problem analysis and planning, policy analysis and formulation, environmental law and implementation, program evaluation, statistical analysis and the application of social science research methods to environmental issues. Studies benefit from interaction with the Center for Public Affairs and the Cofrin Center for Biodiversity.

The Environmental Policy and Administration area of emphasis prepares students to:

- identify and analyze policy-relevant problems of major importance;
- collect, assess, and interpret policy-relevant data;
- design, evaluate, and implement strategies and programs for addressing such problems; and
- effectively communicate the results of policy analyses and evaluations to diverse audiences, including environmental scientists, policy makers, and the general public.

Graduates typically enter governmental agencies at the national, state or local level, or nonprofit organizations, where their work involves policy analysis, planning, or administration. Some prefer positions in legislative bodies, environmental organizations, or industry where administrative or analytical work is combined with politics, public relations, education or advocacy.

Environmental Policy and Administration (16-18 credits minimum)

Emphasis Prerequisites

Students who pursue Environmental Policy and Administration come from a variety of undergraduate backgrounds such as economics, engineering, environmental planning, environmental policy, political science, public administration, sociology, or more traditional science disciplines. The appropriate undergraduate course preparation is dictated by the prerequisites for the courses to be included in a program of study and the thesis topic area. It would

normally be expected that students would have the equivalent of one year of undergraduate course work in political science, public administration, or economics.

Code	Title	Credits
Required Courses - complete 6 credits:		9
ENV S&P 713	Environmental & Natural Resource Economics	
ENV S&P 752	Environmental Policy and Administration	
ENV S&P 760	Social Research Methods	
Administrative Organizations and Processes - complete 3 credits:		3
MGMT 753	Organizational Theory and Behavior	
POL SCI 610	Intergovernmental Relations	
PU EN AF 514	Administrative Law	
PU EN AF 578	Environmental Law	
PU EN AF 579	Natural Resource Policy, Law, and Administration	
PU EN AF 615	Public and Nonprofit Budgeting	
Public Policy - choose 3 credits:		3
ECON 612	Economics of Sustainability	
ENV S&P 713	Environmental & Natural Resource Economics	
POL SCI 516	Congress: Politics and Policy	
PU EN AF 506	Regulatory Policy and Administration	
PU EN AF 522	Environmental Planning	
PU EN AF 551	Water Resources Policy and Management	
PU EN AF 578	Environmental Law	
PU EN AF 579	Natural Resource Policy, Law, and Administration	
PU EN AF 580	Global Environmental Politics and Policy	
PU EN AF 608	Public Policy Analysis	
Additional Courses		3
Select any combination from the courses listed here or above.		
Research Methods:		
ENV S&P 755	Environmental Data Analysis	
MATH 630	Design of Experiments	
PU EN AF 653	Cost Benefit Analysis	
Environmental Science		
ENV S&P 724	Hazardous and Toxic Materials	
ENV S&P 740	Ecology and Management of Ecosystems	
ENV S&P 743	Landscape Ecology	
ENV S&P 767	Environmental Technology and Analysis	
ENV SCI 505	Environmental Systems	
ENV SCI 518	Pollution Control	
ENV SCI 523	Pollution Prevention	
ENV SCI 660	Resource Management Strategy	
ENV SCI 633	Ground Water: Resources and Regulations	
Environmental Planning and Geographic Information Systems:		
PU EN AF 650	Advanced Geographic Information Systems	
Seminar and Special Topics:		
ENV S&P 715	Seminar in Ecology and Evolution	
ENV S&P 795	Special Topics	
Internship or Thesis Option:		6-9
ENV S&P 763 & ENV S&P 797	Capstone in Environmental Science and Policy and Internship	
or ENV S&P 799	Thesis	
Total Credits		24-27

Environmental Technology and Analysis Emphasis

Master of Science in Environmental Science and Policy

Students who select the Environmental Technology and Analysis emphasis may study concepts of: environmental modeling and remediation; municipal, industrial, and agricultural waste transformation, utilization and disposal; alternative energy systems and energy efficiency; or chemical, biological and geological aspects of ground or surface water systems. Students may be involved with evaluating alternative technologies and strategies for effective planning and policy implementation for the future. Principles and techniques of quantitative and qualitative analysis are applied to problems of supply, distribution, and utilization of natural resources and to the optimization of treatment and management costs in the context of public agencies, consulting firms and industries.

The Environmental Technology and Analysis area of emphasis prepares students to:

- design and conduct scientific investigations;
- collect, evaluate, and interpret data;
- make responsible decisions to implement appropriate technologies and strategies to solve environmental problems; and
- effectively communicate the results of environmental studies to other scientists, decision makers and the general public.

Graduates typically work as scientists, environmental specialists, or project managers with industry, commercial laboratories, engineering firms, or government agencies, where their work involves analysis, research, consulting, compliance, or enforcement.

Environmental Technology and Analysis (16 credits minimum)

Code	Title	Credits
Required Quantitative Course:		4
ENV S&P 755	Environmental Data Analysis	
Additional Courses - 12 credits		12
Choose any combination of the following courses listed below:		
Chemistry		
CHEM 520	Thermodynamics and Kinetics	
CHEM 522	Therymodynamics and Kinetics Laboratory	
CHEM 530	Biochemistry	
CHEM 531	Biochemistry Laboratory	
CHEM 602	Advanced Organic Chemistry	
CHEM 603	Advanced Organic Chemistry Laboratory	
CHEM 613	Instrumental Analysis	
Environmental Science:		
BIOLOGY 522	Environmental Microbiology	
ENV SCI 505	Environmental Systems	
ENV SCI 518	Pollution Control	
ENV SCI 520	The Soil Environment	
ENV SCI 523	Pollution Prevention	
ENV SCI 530	Hydrology	
ENV SCI 535	Water and Waste Water Treatment	
ENV SCI 615	Solar and Alternate Energy Systems	
ENV SCI 632	Hydrogeology	
ENV SCI 660	Resource Management Strategy	
ENV SCI 633	Ground Water: Resources and Regulations	
ENV SCI 664	Atmospheric Pollution and Abatement	
ENV S&P 724	Hazardous and Toxic Materials	
ENV S&P 740	Ecology and Management of Ecosystems	
ENV S&P 767	Environmental Technology and Analysis	
Environmental Policy and Planning:		
PU EN AF 551	Water Resources Policy and Management	
PU EN AF 578	Environmental Law	
PU EN AF 580	Global Environmental Politics and Policy	

PU EN AF 615	Public and Nonprofit Budgeting	
ENV S&P 713	Environmental & Natural Resource Economics	
ENV S&P 752	Environmental Policy and Administration	
Math and Statistics		
ENV S&P 760	Social Research Methods	
MATH 529	Applied Regression Analysis	
MATH 630	Design of Experiments	
Seminar and Special Topics:		
ENV S&P 715	Seminar in Ecology and Evolution	
ENV S&P 795	Special Topics	
Internship or Thesis Option:		6-9
ENV S&P 763 & ENV S&P 797	Capstone in Environmental Science and Policy and Internship	
or ENV S&P 799	Thesis	
Total Credits		22-25

Personal Program of Study

Master of Science in Environmental Science & Policy

Personal programs of study must conform to Environmental Science and Policy program guidelines and be approved in advance by the student's graduate committee, the Environmental Science and Policy program chair, and the Associate Provost for Academic Affairs and Director of Graduate Studies. These programs must include the entire 18-credit program core requirements, at least one 3-4 credit quantitative course ENV S&P 755 or ENV S&P 760 and include a minimum of 34 total credits.

It is possible, even necessary depending on area requirements, that students will include one or two four-credit statistics courses in their academic program. In those cases, only seven credits would be needed in one semester which could be satisfied by ENV S&P 715 or ENV S&P 795, or an independent study or internship. If a regular course is selected, the academic program would include a total of 36 credits.

Personal Program of Study (16 credits minimum)

Code	Title	Credits
Required:		3
ENV S&P 755	Environmental Data Analysis	
or ENV S&P 760	Social Research Methods	
Pre-approved individual courses: [1]		13
Personal programs of study must conform to Environmental Science and Policy program guidelines and be approved in advance by the student's graduate committee, the Environmental Science and Policy program chair, and the Associate Provost for Academic Affairs and Director of Graduate Studies.		
Internship or Thesis Option:		
ENV S&P 763 & ENV S&P 797	Capstone in Environmental Science and Policy and Internship	
or ENV S&P 799	Thesis	
Total Credits		16

[1] If ENV S&P 755 is completed, only 12 additional credits of pre-approved coursework is required.

Master of Science in Health & Wellness Management

The Master of Science degree in Health and Wellness Management program will equip students with the competencies required to successfully promote and advance the health and well-being of defined groups of people, to effectively lead wellness programs and to conduct research in the discipline. The degree is designed to prepare professionals to assume senior leadership positions in the wellness management field and is unique from other programs in that it has an increased emphasis on management and leadership competency development and focuses on all dimensions of personal and organizational wellness. Over the past 30 years, wellness has developed into a primary business strategy as these programs, when managed effectively, have documented successes in addressing key business issues such as health care cost containment, productivity, absenteeism, and risk management. The program features a multidisciplinary curriculum that draws on psychology, health, nursing/healthcare, communication and management sciences.

Admission Requirements

Each applicant's prior academic work and experience will be evaluated prior to admission. Applicants are expected to have college-level writing, oral communication and computer skills. Students who show exceptional promise but lack the minimal prerequisites may be admitted provisionally. Applicants are not required to take the GRE for admission.

The application process requires completion of a UW-Green Bay Graduate Application form; resume; personal statement describing the applicant's interest in the degree (see below); names and contact information of two references (see below); and official transcripts (undergraduate and graduate).

Prerequisites

Minimum admission requirements are:

- A baccalaureate degree from an accredited institution.
- A minimum of a 3.0 grade point average (GPA).
- Prerequisite coursework in:
  - Personal Health or equivalent
  - Anatomy & Physiology or Human Biology or equivalent
  - Intro to Psychology or equivalent
  - Elementary Statistics or equivalent
- Two (2) letters of recommendation (can be professional or academic)
- Resume
- Up to 1,000 word statement of personal intent describing decision to pursue this degree and what you believe you will bring to the health and wellness management field.
- No required aptitude tests (GRE, GMAT, e.g.)

Code	Title	Credits
HWM 700	Contemporary Health and Wellness Perspectives	3
HWM 705	Strategic Management for Wellness Managers	3
HWM 710	Research Methods for Wellness Programs	3
HWM 715	Persuasion Skills for Wellness Managers	3
HWM 720	Exercise and Nutrition in Health and Disease	3
HWM 730	Biopsychosocial Aspects of Health	3
HWM 740	Health Systems and Policy for Wellness Managers	3
HWM 750	Planning and Evaluation for Wellness Managers	3
HWM 760	Wellness Law	3
HWM 770	Behavior and Development in Organizations	3
HWM 780	Best Practices and Emerging Issues in Wellness	3
HWM 790	Health and Wellness Management Capstone Course	3
Total Credits		36

Dr. Christine Vandenhouten PhD, RN, APHN-BC, CPH, Associate Professor and Academic Director of the Master of Science in Health and Wellness Management program. BSN (1986) Marian University, Fond du Lac, WI; MSN (1991) University of Wisconsin- Oshkosh; Ph.D. (2008) Marquette University, Milwaukee, WI.

Fields of interest: Health Policy, Healthcare Finance, Program Assessment and Evaluation, Emotional intelligence/leadership styles, Community/public health, global health, Interprofessional healthcare, Leadership on Boards of Directors.

Dr. T. Heather Herdman PhD, RN, Associate Professor, Nursing. B.S.N. (1988), University of South Carolina, Columbia; M.S.N. (1991), and Ph.D. (1995), Boston College

Fields of interest: clinical reasoning, nursing diagnosis, patient safety and outcomes, leadership, integrative health care, cultural competence

Master of Science in Management

The University of Wisconsin-Green Bay's Master's of Management program is an innovative, advanced study of the management process and its outcomes. The program, offered through UW-Green Bay's Austin E. Cofrin School of Business, prepares effective leaders and strategic decision-makers

for the region’s businesses, nonprofit organizations, and government agencies. Students in the program are managers from a variety of organizations, both large and small, as well as individuals who wish to enter the management profession.

This program provides students, many of whom already have extensive business backgrounds, with the knowledge and critical thinking skills needed to lead and succeed in complex and dynamic organizations. Students who have experienced success in the workplace find that additional education enhances their professional profile and affords new professional opportunities. The program develops leaders who will take on new management challenges and make a positive difference in their workplace and community.

Leadership, innovation, strategic thinking, and effective communication are the program’s cornerstones. Advanced consideration of vital organizational knowledge, including the management of financial information and strategic marketing, enables students to play key roles in organizational decision making. Interdisciplinary problem-solving is emphasized through the program’s content and pedagogy, which incorporates both theoretical and applied approaches to developing the skills for life-long learning.

The Master's of Management is created with students’ needs in mind. Students have the convenience of small classes and the opportunity to work closely with dedicated faculty who will challenge students to perform at the highest levels. All instructors are experienced teachers with doctorate degrees. They also have wide-ranging community involvement and professional and international experience.

Convenient scheduling is one of the program’s key features. Many graduate students work full time and pursue their graduate studies on a part-time basis. Master's of Management courses are offered in the evening or over a series of weekends. While the program is structured to accommodate part-time students, those seeking full-time education are also served.

Admission Requirements

All courses are taught under the assumption that students have the necessary background and preparation to succeed in the program. A well-prepared student enters the program with an understanding of and an undergraduate competency level in management, marketing, finance, accounting, and statistics. Students can demonstrate their competency by completing undergraduate or foundation courses in the five areas or by passing competency exams. The program adviser will review these options with prospective students to ascertain the student’s level of competency.

Admission requirements for the Master's of Management program closely follow the University-wide policy for admission to graduate programs. These requirements include:

- A bachelor’s degree from an accredited institution.
- A 3.0 grade point average on a 4.0 scale.
- International applicants must be prepared to provide Evidence of English Proficiency. A minimum paper score of 500 or computer-based score of 213 on the Test of English as a Foreign Language (TOEFL) is required. For a complete list of alternatives to the TOEFL exam, please contact the Office of Graduate Studies. International applicants must also provide a course by course Evaluation of Foreign Credentials from Educational Credential Evaluators (ECE) for an application to be considered. International applicants who meet English Proficiency and academic admission requirements will be admitted but must also show evidence of financial resources adequate to provide for their educational expenses before an I-20 will be provided.

Applicants who do not meet the 3.0 grade point average requirement or who have other deficiencies may be admitted on a provisional basis.

Special Students

Persons holding a bachelor’s or higher-level degree who wish to enroll in courses but do not want to pursue a Master’s of Management degree may enroll as special students. Graduate credit will be awarded provided that the student registers in graduate-level courses as a graduate special student and pays appropriate fees.

Degree Requirements

The 31-credit curriculum consists of a graduate core of eight required courses (24 credits) and one elective Management course (3 credits). A four-credit, hands-on professional project is the capstone of the program’s academic experience.

Code	Title	Credits
Management Core		24
FIN 646	Advanced Corporation Finance	
MGMT 589	Organizational Behavior	
MGMT 730	Leading the Self	
MGMT 735	Foundations of Strategic Information Management	
MGMT 745	Business and Marketing Strategy	
MGMT 750	Team Leadership	
MGMT 758	Innovation and Entrepreneurship	
MGMT 759	Managing Knowledge for Sustainability	

Elective Courses-choose a minimum of one course:		3
MGMT 736	Analysis & Design of Business Information Systems	
MGMT 737	Strategic Application of E-Commerce	
PU EN AF 535	Principles and Practices of Emergency Management	
PU EN AF 536	Strategic Emergency Preparedness, Planning and Implementation	
PU EN AF 537	Disaster Response Operations and Management	
PU EN AF 538	Disaster Recovery	
PU EN AF 559	Political and Policy Dimensions of Emergency Management	
Professional Project		4
MGMT 796	Professional Project	
Total Credits		31

Code	Title	Credits
Management Core		16
FIN 646	Advanced Corporation Finance	
MGMT 589	Organizational Behavior	
MGMT 748	Project Management	
MGMT 750	Team Leadership	
MGMT 759	Managing Knowledge for Sustainability	
MGMT 798	Independent Study	
Complete one of the following at KEDGE BS Bordeaux Campus: [1]		15
Finance Track		
Global Management Track		
Marketing Track		
Purchasing & Supply Chain Track		
Total Credits		31

[1] Successful completion must include a Master Thesis and Grand Oral defense graded by KEDGE BS (https://student.kedge.edu)

Steps Toward the Degree

- The candidate is admitted to the graduate program.
- In consultation with the program adviser, an *Official Declaration of Master's Degree* (GR-1 Form) is filed on the student's behalf.
- After at least 24 credits, the student registers for MGMT 796.
- The student files an *Application for Graduation* with the Registrar's Office through the Student Information System (SIS). The application must be completed and submitted to the Office of the Registrar prior to November 1 for fall semester graduates, and April 1 for spring and summer semester graduates.
- Upon successful completion of professional project course, the instructor will enter grade in SIS. Filing the *Approval of Thesis Defense or Project Presentation* (GR-4 Form) with the Graduate Studies Office indicates satisfactory completion of the professional project and presentation.
- Graduate receives diploma.

Faculty/Advisers

Bansal, Gaurav, Associate Professor, Business Administration (MIS/Statistics). B.E. (1996) University of Gorakhpur; M.B.A. (2002) Kent State University; Ph.D., MIS (2008) University of Wisconsin-Milwaukee.

Interests: Teaching interests include introduction to management information systems, e-commerce, business statistics, database management systems, and web development. Research interests include internet information privacy and security, internet trust, e-commerce, and data mining.
Gurtu, Amulya, Assistant Professor of Supply Chain Management, M.S in engineering (1995), Bhopal university; MBA (2007) Western University; Phd In Industrial engineering (2014) Ryerson University, Toronto (Canada)

Interests: Optimizing supply chains, global operations and offshore outsourcing

Madupu, Vivek, Assistant Professor of Marketing, MBA (1997) Bharathidasan Institute of Management; Ph.D. (2006) University of Memphis

Interests: Advertising, and Cross-Cultural Marketing.

Meng, Yun, Assistant professor of finance. B.E, Chongqing University (China); M.S in Statistics, University of Arkansas; Ph.D,Finance (2016) University of South Florida in 2016.

Intersts: Investment, behavior finance, international finance, and mergers and acquisitions

Murphy, Dianne, Assistant Professor, Organizational Behavior, B.S (1993) St.Norbert College; MBA (2008), University of Wisconsin-Milwaukee; PhD , Organizations and Strategic Management (2017), University of Wisconsin-Milwaukee

Interests: Diversity, Entrepreneurship, Culture, Mentoring, Identity, International Business

Radosevich, David, Associate Professor, Business Administration (Management). B.A. (1994) Western Maryland College; Ph.D., Industrial/ Organizational Psychology (1999) University at Albany, State University of New York.

Interests: Teaching interests include leadership development, human resource management, organizational behavior, and team building. Research interests include motivational processes, performance management, goal orientation, and the impact of technology on learning. Member: Society for Industrial/Organizational Psychology, and American Psychological Association.

Ranganathan, Sampath, Associate Professor and Chair, Master's of Management,, Business Administration (Marketing). B.Com. (1993), M.B.A. (1996) Bharathiar University; M.Phil (2011) Alagappa University; Ph.D., Marketing/Research Methods (2008) University of Memphis.

Interests: Teaching interests include Marketing, Marketing research, Advertising, and Services marketing. Research interests include consumer behavior, advertising, services marketing and social marketing.

Russ, Meir, Professor, Business Administration (Management). B.Sc.E.E. (1980), M.B.A. (1990) Tel-Aviv University; M.A. (1992), Ph.D. (1993) Ohio State University.

Interests: Teaching interests include knowledge management, human capital valuation, global strategy, strategic management, marketing management, innovation and leadership and decision-making. Research interests include knowledge management, knowledge based strategies, human capital valuation, e-learning and memetics. Member of IEEE, Academy of Management, and Informs. Founding Chief Editor, *International Journal of Management and Business* (IJMB). Consulting with global corporations in the area of strategic planning, marketing and knowledge management.

Shin, Soo il, Assistant Professor of Management Information Systems/Statistics, B.S (1998), Sogang University; MBA (2008) Sogang University; Phd (2014) , MIS Auburn University

Interests: Computer-mediated communication, social media and its business use, virtual community and trust concerns in the context of e-media

Teclezion, Mussie, Associate professor of finance, B.A. in Accounting (1999) University of Asmara, Eritrea; M.B.A. (2003) University of Illinois in Urbana-Champaign; PhD in Finance (2008)Southern Illinois University – Carbondale in 2008.

Interests: financial and investment policies of firms, geographic and industrial diversification strategies, mergers & acquisitions, and earnings management

Master of Science in Nursing Leadership and Management

The MSN Leadership and Management is intended for RNs holding a bachelor's degree in nursing. This master's degree provides advanced coursework in leadership and management to improve care at multiple levels across the continuum of health care settings. The curriculum will provide students with knowledge and skills to improve outcomes in areas of quality processes, cost savings, and patient satisfaction. Core content within the curriculum includes leadership, fiscal management, evaluative methods, information systems, health care policy, communication, and organizational behavior. Didactic and practicum courses will comprise the curriculum. Practicum experiences will be arranged with health care facilities in students' geographic areas. More information, admission requirements, required application materials and applications can be can be found on the UW-Green Bay Graduate Studies website.

The curriculum consists of 13 graduate-level courses delivered via a part-time model. Students can complete the program in 6 terms over two years taking two courses each term. Alternatively, they can progress taking one or two classes per term and complete the program over three or four years. (Consult with a Nursing Adviser.) Degree completion requirements include 34 credits of coursework including 9 credits of practicum/project (378 hours). Practicum experiences will be arranged with health care facilities close to students' homes or work sites. The final practicum includes a master's leadership project identified in collaboration with a health care setting. Master's projects will be presented in a format suitable for public dissemination (e.g., manuscript for publication). A thesis option is not planned.

The MSN Leadership and Management program prepares the graduates to:

1. Integrate knowledge of sciences and humanities as a basis for leadership and nursing practice.
2. Apply concepts of organizational and systems leadership indecision making in the health care environment.
3. Enact a nurse leader role in safety and quality improvement in the health care environment.
4. Apply research evidence in nursing leadership and practice to enhance care and improve outcomes of nursing.

5. Utilize informatics and health care technologies to enhance care and outcomes of nursing.
6. Intervene at the systems level through policy, fiscal management, and advocacy to influence the health care environment.
7. Communicate and collaborate as a member and leader of inter professional teams to optimize health care delivery.
8. Analyze the role of nurse leader to reduce health disparities and promote population health.
9. Evaluate personal growth as a professional nurse leader.
10. Influence health care outcomes through master's level nursing practice, cognizant of environmental sustainability.

The MSN Leadership and Management Program Outcomes and curriculum are aligned with the American Association of Colleges of Nursing (AACN) Essentials of Masters Education (2011); American Organization of Nurse Executives (AONE) Competencies (2015); Institute of Healthcare Improvement (IHI) Quadruple Aim; Quality and Safety Standards in Nursing Education (QSEN); Quantum Leadership Principles; and the University of Wisconsin - Green Bay Institutional Learning Outcomes.

Admission Requirements

Admission requirements for the MSN Leadership and Management program closely follow the University-wide policy for admission to graduate programs. The requirements include:

- A 3.0 grade point average (measured on a 4.0 scale) or higher on a Bachelor of Science in Nursing degree transcript from a program accredited by a professional nursing organization (e.g., National League for Nursing Accrediting Commission [NLNAC] or Commission on Collegiate Nursing Education [CCNE]).
- Evidence of receiving a grade of “C” or better in a college-level inferential statistics course within the past 5 years. An inferential statistics course is available online from UW-Green Bay for potential applicants.
- No entrance exams required (e.g., GRE, MAT).

Required application materials for the MSN Leadership and Management program. Submit the following to the UW-Green Bay Graduate Office:

- A completed application form and the application fee.
- A 200-300 written statement describing academic interest in leadership and management, nursing strengths and capabilities, knowledge of online technology (computer use, online coursework, etc.), reasons for pursuing a MSN degree, and description of where you see yourself in 5 years.
- Official undergraduate and graduate transcripts from each previous college or university attended, sent directly to UW-Green Bay from these institutions.
- Three letters of recommendation from persons who can assess your academic potential.
- Curriculum vitae or resume.
- Copy of current, unencumbered U.S. RN license.

Upon admission to the program, you will need to provide the following to the coordinator of the MSN Leadership and Management:

- Professional photo of yourself or one of you at your job (headshot) will be required upon admission to the MSN program. UWGB will use the photo for education and marketing purposes.
- Background check by UWGB vendor.
- Basic Healthcare Provider CPR certification.

International Students

International students should visit, http://www.uwgb.edu/graduate/international/, for additional information on the following requirements.

- Evidence of English Proficiency (such as a TOEFL score).
- Evaluation of Foreign Educational Credentials from Educational Credential Evaluators (ECE) or a similar evaluation service.
- Evidence of financial resources.
- Financial Support Statement.

Special Students

Persons holding a bachelor’s or higher-level degree who wish to enroll in courses but do not want to pursue a MSN in Leadership and Management degree may enroll as special students. Graduate credit will be awarded provided that the student registers in graduate-level courses as a graduate special student and pays appropriate fees.

Degree Requirements

The 34-credit curriculum consists of 13 graduate courses. Students in the program are required to earn a grade of “B” or better in all required courses. The program is delivered via a part-time model. Students can complete the program in 6 semesters (fall I, spring I, summer I, fall II, spring II, summer II) with two courses offered each semester. A master’s professional project is the capstone of the program’s academic experience. The master’s leadership project is in lieu of a thesis.

Three practicum/project courses (9 credits) are required and in total amount to 378 practicum hours.

Code	Title	Credits
NURSING 734	Evaluation and Evidence-Based Practice	3
NURSING 737	Leadership in Complex Systems	3
NURSING 741	Theories of Organizational Behavior and Nursing Leadership	3
NURSING 745	Health Economics and Policy	3
NURSING 750	Human Resource Management	3
NURSING 755	Program Planning for Population Health	2
NURSING 760	Informatics for Nursing Leaders	3
NURSING 770	Practicum I: Leadership and Management Practices - Quality and Safety	2
NURSING 772	Practicum II: Leadership and Management Practices - Change, Culture and Communication	2
NURSING 774	Practicum III: Transition to Leadership and Management Roles	2
NURSING 780	Financial Management for Nurses	3
NURSING 785	Environmental Sustainability for Nurse Leaders	2
Complete 3 credits of NURSING 790		3
NURSING 790	MSN Leadership Project	
Total Credits		34

Steps Toward the Degree

1. Applicant is admitted to a graduate program.
2. Students in the MSN Leadership and Management program DO NOT NEED TO submit an *Official Declaration of Master’s Degree* (Form GR-1) to the Office of Graduate Studies.
3. Students in the MSN Leadership and Management develop a project proposal. MSN students develop and complete a master’s professional project identified in collaboration with a health care setting, mentor, project Committee, and Committee Chair (an MSN faculty member). The proposal is reviewed and approved by the thesis/project committee. Once approved, a ***Thesis/Project Proposal*** **Form GR-2** is submitted to the Graduate Studies office.
4. Students in the MSN Leadership and Management schedule a professional project presentation via submission of the ***Request for Thesis Defense/ Project Presentation*** **Form GR-3** to the Graduate Studies office. MSN students’ project presentation will disseminate information from the master’s professional project in a suitable format (e.g., manuscript for publication, presentation).
5. The scheduled thesis defense meeting or professional project presentation takes place. Formal approval of the defense is documented on the ***Approval of Thesis Defense or Project Presentation*** **Form GR-4** and is kept with the academic record.
6. If the thesis or professional project is successfully completed and approved, the student applies for conferral of the degree to the Registrar’s Office through the Student Information System (SIS).
7. Degree is awarded and graduate receives diploma. Graduating MSN students (in a cohort model) are encouraged to participate in the May graduation ceremonies, usually completing the final practicum and courses in the following summer semester, with actual diplomas received upon completion of these courses in August.

Faculty/Advisers

Gajeski, Sharon, Senior Nursing Adviser, B.S.N., University of Wisconsin-Green Bay; M.S.N., University of Wisconsin-Oshkosh.

Hale, Marguerite (Margie), Associate Lecturer, Nursing. B.S.N., University of Wisconsin-Green Bay; M.S.N./M.B.A., Grand Canyon University, Phoenix, AZ.

Fields of Interest: enhancing students' understanding and application of business principles in nursing practice, based on her current role as a hospital Chief Nursing Officer.

Hovarter, Rebecca, Senior Lecturer (with faculty status), Nursing. B.S.N., University of Wisconsin-Green Bay; M.S.N. and DNP, University of Minnesota-Twin Cities, MN.

Fields of interest: public health, health equity, social determinants of health

Reilly, Janet, Associate Professor, Nursing. B.S.N., Alverno College, Milwaukee, WI; M.S.N., Concordia University, Milwaukee, WI; D.N.P., Case Western Reserve University, Cleveland, OH.

Fields of interest: emotional intelligence/leadership styles, community/public health, technology/online teaching/learning, nurse practitioner practice.

Tyczkowski, Brenda, Associate Professor, Nursing. B.S.N., University of Wisconsin-Green Bay; M.S.N., University of Wisconsin-Oshkosh; D.N.P., Kansas University Medical Center, Kansas City, KS.

Fields of interest: patient advocacy, organizational change, emotional intelligence/leadership styles, quality of care issues in nursing homes.

Vandenhouten, Christine, Associate Professor, Nursing. B.S.N., Marian College, Fond du Lac, WI; M.S.N., University of Wisconsin-Oshkosh; Ph.D., Marquette University, Milwaukee, WI.

Fields of interest: assessment and evaluation methods, emotional intelligence/leadership styles, community/public health, global health.

Master of Science in Sustainable Management

The University of Wisconsin-Green Bay, the University of Wisconsin-Oshkosh, the University of Wisconsin-Parkside, the University of Wisconsin-Stout and the University of Wisconsin-Superior have collaborated to offer an online master's degree program in Sustainable Management. The master's degree in Sustainable Management is appropriate for students with an existing bachelor's degree in a range of disciplines and the desire to continue their education in this developing field. The interdisciplinary nature of this degree encourages students to examine sustainability from different perspectives and the curriculum ensures that students gain a comprehensive understanding of the ways in which changing human activities affect our natural, social and economic environments.

Admission Requirements

Each student's prior academic background is evaluated by the Chair at the University of Wisconsin-Green Bay. Students with a GPA of 3.0 or greater will be admitted to the program. Students with a GPA above 2.5 may be considered for provisional admission by an Admissions Committee consisting of representatives from all the participating campuses, although additional verification of academic record and potential could be requested.

Degree Requirements

Students who are adequately prepared when they enter the program may earn the degree by satisfactorily completing a minimum of 34 credits of course work, which includes 1 credit for a capstone preparation course and 3 credits for a capstone project. Those who lack appropriate prerequisites may need to take additional courses to strengthen their backgrounds. Credits earned in undergraduate courses cannot be applied toward the graduate degree in Sustainable Management.

All students in the Sustainable Management program are required to complete a core curriculum of 24 credits, the capstone preparation course and the capstone course. The remaining 6 credits can be selected from a group of specialty track electives based on the student's areas of interest.

Code	Title	Credits
Core Curriculum		24
SMGT 700	Cultural and Historical Foundations of Sustainability	
SMGT 710	The Natural Environment	
SMGT 720	Applied Research and the Triple Bottom Line	
SMGT 730	Policy, Law and the Ethics of Sustainability	
SMGT 740	Economics of Sustainability	
SMGT 750	The Built Environment	
SMGT 760	Geopolitical Systems: Decision Making for Sustainability on the Local, State and National Level	
SMGT 770	Leading Sustainable Organizations	
Speciality Electives - choose two of the following courses:		6
SMGT 699	Travel Course	
SMGT 780	Corporate Social Responsibility	
SMGT 782	Supply Chain Management	
SMGT 784	Sustainable Water Management	
SMGT 785	Waste Management and Resource Recovery	
Capstone Experience		4
SMGT 790	Capstone Preparation Course	
SMGT 792	Capstone Project	
Total Credits		34

Steps Toward the Degree

1. The candidate applies to the Master of Sustainable Management program by submitting an application, official transcripts, resume, statement of intent and two letters of reference to the University of Wisconsin-Green Bay.
2. The candidate is admitted to the Master of Sustainable Management program by the program Chair.
3. The student fulfills the degree requirements for the program.
4. The student is awarded a Master of Sustainable Management degree from the University of Wisconsin-Green Bay.

Faculty/Advisers

Chandna, Vallari, Assistant Professor, Business Administration (Management). BA.LL.B-Honors (2007); MBA. (2011) University of North Texas; Ph.D. (2016) University of North Texas.

Fields of Interest: Teaching interests include Organizational Behavior, Strategic Management, Entrepreneurship, Business Policy (capstone), Leadership and Human Resources Management. Research interests include virtual entrepreneurship, new organizational forms (temporary organizations), degrowth, sustainability, individual and organizational issues in start-ups, and inter-organizational relationships. Currently a Board Member for Southwest Academy of Management serving as a Representative-at-Large. (EMBI) and Track Chair for the upcoming International Conference on Entrepreneurship & Family Business (ICEFB).

Katers, John F., Dean, College of Science and Technology. Academic Director, Master of Science in Sustainable Management (SMGT). Frederick E. Baer Professor in Business. B.S. (1991), M.S. (1993) UW-Green Bay; Ph.D. (1996) Marquette.

Fields of Interest: Waste management, recycling, pollution control, pollution prevention, renewable energy, and waste water treatment.

Wheat, Elizabeth, Associate Professor, Public and Environmental Affairs (Political Science). B.A. (2002) Alma College, M.P.A. (2004) Indiana University, Ph.D. (2013) Western Michigan University.

Fields of Interest: Teaching interests include environmental law and policy; global environmental politics; natural resources; constitutional law; and global politics. Research interests include environmental law at the U.S. Court of Appeals; wildlife smuggling; environmental justice; environmental policy, particularly endangered species and water policy; and policy analysis.

Master of Social Work

The MSW program prepares students for advanced practice social work in a variety of fields of practice. The curriculum is founded on the program's mission and goals and emphasizes social justice advocacy, leadership, and social work with, and on behalf of, vulnerable families. The program offers a full-time curriculum which can be completed in two calendar years for students entering at the Generalist level or one year for students entering at the Specialized level. A part-time program is also available which can be completed in nine semesters for students entering at the Generalist level or five semesters for students entering at the Specialized level. A key element of the program is the opportunity for students to integrate and apply their classroom learning in a field internship setting.

Admission Requirements

The program seeks applicants who have demonstrated academic potential for graduate study, readiness and suitability for advanced-level social work, and who are able to articulate a commitment to social work. In addition, the program seeks applicants with demonstrated human services experience and sensitivity to multi-cultural practice, social justice, and leadership/advocacy.

Required Qualifications

To be considered for admission to the MSW program, the following criteria must be met:

1. An undergraduate degree from a regionally accredited university by the time classes start.
2. A 3.0 grade point average (GPA), measured on a 4.0 scale. GPA is based on the last 60 credits taken in bachelor's degree studies or graduate level course work. Consistent with Graduate Studies policy, students from schools not using a grading system will be evaluated on an individual basis. Students who do not meet the 3.0 GPA requirement or who have other deficiencies may be admitted on a provisional basis. Provisionally admitted students who receive at least a B grade in courses totaling nine credits of graduate work, after acceptance, will be fully admitted.
3. An academic background in the liberal arts with completion of a minimum of 12 credits in the social sciences. Examples include coursework within or across the following disciplines: psychology, sociology, anthropology, economics and political science.
4. A total of four prerequisite courses are required and include one course from each of the following areas: Biological Life Sciences, Lifespan Development, Statistics, and Research Methods. Students without a BSW degree who are applying for admission to the Generalist Program must have completed all prerequisites prior to the start of the program. Students who have a BSW degree are considered to have met all four prerequisites.
5. International students must provide evidence of English proficiency. Please see the Graduate Studies website for more information.

6. To be considered for admission, applicants with social work degrees from international universities must substantiate their academic credentials via the Council on Social Work Education (CSWE) International Social Work Degree Recognition and Evaluation Service (ISWDRES). Information is available here: https://cswe.org/Centers-Initiatives/Initiatives/International-Degree-Review.aspx

Preferred Qualifications

In addition to meeting the required admissions qualifications noted above, applicants with the following qualifications will be given preference for admission.

1. Demonstrated post-high school human services-related experience. Examples include paid employment, volunteer work, and internships.
2. Written communication that demonstrates clear and succinct conceptualization of ideas, application of critical thinking, the ability to coherently communicate and organize ideas, and the ability to write using correct grammar, spelling and syntax.
3. Commitment to social justice, advocacy, and multicultural practice on behalf of vulnerable and oppressed populations.

The Graduate Record Examination (GRE) is not required.

Additional Admission Information

The MSW program admits students once per year. Applications and specific instructions for submission are posted on the MSW program website in August with applications due on or before December 1. Applicants are encouraged to review the MSW program website for specific admission dates, fees, and application submission requirements.

Degree Requirements

For program applicants who do not have a Bachelor of Social Work degree, 59 credits are required for graduation. This includes a 27-credit two-semester Generalist curriculum (fall and spring), and a 32-credit three-semester Specialized curriculum (summer, fall and spring). Applicants with a BSW degree may receive advanced standing status in the MSW Program if they meet one of the following two options:

OPTION ONE: BSW degree from a baccalaureate social work program accredited by the Council on Social Work Education (CSWE) or those recognized by the International Social Work Degree Recognition and Evaluation Service. BSW degree must be obtained within seven years of the year of admission to the UW-Green Bay MSW program.

OPTION TWO: Must meet all three of the following criteria:

1. BSW degree from a CSWE-accredited program,
2. Current Wisconsin Social Work certification (training certificate excluded), and
3. Post-BSW social work practice experience equivalent to three full-time years (approximately 6,240 hours). Work experience must be obtained within 10 years of the year of admission to the MSW Program.

Applicants are responsible for providing evidence of meeting the criteria in Option Two.

Part-Time Option

Students entering the Generalist Program complete the part-time option in four years. Students entering with advanced standing complete the part-time option in two years.

Code	Title	Credits
Generalist Curriculum Requirements:		27
SOC WORK 700	Gateway to the Profession of Social Work	
SOC WORK 701	Contemporary Social Work Ethics	
SOC WORK 702	Generalist Practice I	
SOC WORK 704	Generalist Practice II	
SOC WORK 705	Macro Practice Skills	
SOC WORK 707	Human Behavior and the Social Environment	
SOC WORK 711	Foundations of Social Welfare	
SOC WORK 712	Field I	
SOC WORK 713	Seminar I	
SOC WORK 714	Field II	
SOC WORK 715	Seminar II	
Specialized Curriculum Requirements:		32
SOC WORK 716	Field III	
SOC WORK 717	Seminar III	

SOC WORK 718	Field IV
SOC WORK 719	Capstone Seminar
SOC WORK 720	Diversity, Social Justice & Advocacy
SOC WORK 721	Advanced Practice: Multi-Level Family Systems
SOC WORK 728	Advanced Policy: Leadership, Advocacy and Practice
SOC WORK 731	Research for MSW Practice
SOC WORK 736	Advanced Program Evaluation
SOC WORK 738	Advanced Practice: Community Empowerment
Electives (Choose six credits from the following list):	
SOC WORK 701	Contemporary Social Work Ethics (This is a required course for foundation students; an elective for advanced standing students.)
SOC WORK 722	Social Work Management & Supervision in the Social Services
SOC WORK 727	Psychopathology for Clinical Social Work
SOC WORK 735	Emerging Issues in Child Welfare
SOC WORK 737	Crisis Intervention
SOC WORK 747	Clinical Theories for Mental Health Practice
SOC WORK 749	Contemporary Interventions in Social Work Practice
SOC WORK 751	Social Work Practice in Schools
SOC WORK 753	Strengths-Based Leadership and Supervision
SOC WORK 757	Social Work Practice in the Criminal Justice System
SOC WORK 761	Overview of Wisconsin DPI School Social Work Standards
SOC WORK 767	Assessing Mental Health and Substance Use in Practice
SOC WORK 777	Forensic Social Work: Policy and Practice
SOC WORK 795	Special Topics
SOC WORK 798	Independent Study
EDUC 552	Social and Family Influences on Development and Learning
MGMT 589	Organizational Behavior
MGMT 750	Team Leadership
PSYCH 544	Dying, Death, and Loss
PU EN AF 615	Public and Nonprofit Budgeting
Advanced requirement: Portfolio Project	
Total Credits	59

Steps Toward the Degree

1. Prospective student submits an admission application and is recommended for admission.
2. Applicant is admitted to the Master of Social Work graduate program.
3. The student develops a Capstone project which is defined in consultation with the program faculty and adviser.
4. The student files an *Application for Graduation* with the Registrar's Office through the Student Information System (SIS). The application must be completed and submitted to the Office of the Registrar in the fall semester for spring and summer semester graduates.
5. Upon successful completion of the Capstone project the instructor files the *Approval of Thesis Defense or Project Presentation* (GR-4 Form) with the Office of Graduate Studies.
6. Degree is awarded and graduate receives diploma.

Course	Title	Credits
First Year		
Fall		
Generalist Curriculum		
SOC WORK 700	Gateway to the Profession of Social Work	2
SOC WORK 702	Generalist Practice I	3
SOC WORK 711	Foundations of Social Welfare	3
SOC WORK 712	Field I	4

SOC WORK 713	Seminar I	1
	Credits	13
Spring		
Generalist Curriculum		
SOC WORK 701	Contemporary Social Work Ethics	3
SOC WORK 704	Generalist Practice II	3
SOC WORK 705	Macro Practice Skills	1
SOC WORK 707	Human Behavior and the Social Environment	2
SOC WORK 714	Field II	4
SOC WORK 715	Seminar II	1
	Credits	14
Second Year		
Fall		
Specialized Curriculum		
SOC WORK 716	Field III	4
SOC WORK 717	Seminar III	1
SOC WORK 720	Diversity, Social Justice & Advocacy	3
SOC WORK 731	Research for MSW Practice	3
SOC WORK 738	Advanced Practice: Community Empowerment	2
	Credits	13
Spring		
Specialized Curriculum		
SOC WORK 718	Field IV	4
SOC WORK 719	Capstone Seminar	1
SOC WORK 721	Advanced Practice: Multi-Level Family Systems	3
SOC WORK 736	Advanced Program Evaluation	2
Elective		3
	Credits	13
Summer		
Specialized Curriculum		
SOC WORK 728	Advanced Policy: Leadership, Advocacy and Practice	3
Elective		3
	Credits	6
	Total Credits	59

Faculty

Faculty members in the MSW Program represent a wide range of teaching, practice, and research experiences. Contact information and biographies for faculty and staff are available on the program website at: https://www.uwgb.edu/social-work/faculty-staff/

Certificate Programs

- Emergency Management, Planning and Administration (p. 68)

Emergency Management, Planning and Administration

The University of Wisconsin-Green Bay's Emergency Management certificate program for graduate and undergraduate credit is the first of its kind in the state of Wisconsin.

The program responds to and anticipates challenges as varied and fresh as today's headlines. Emergencies resulting in catastrophic loss of life, property and resources are unfortunate facts of life, worldwide. Some believe the risk of hazardous events will only increase, a consequence of mankind's growing ability to alter the environment, more numerous and increasingly severe weather events, the rise of global terrorism, and the ability of viruses and contagious diseases to spread rapidly in an interconnected world.

As a result, today's emergency managers need to be well educated, prepared and informed. Federal officials have recommended there be a college-credit emergency management program in every state. There is general consensus the field is evolving into a professional area requiring advanced education.

Impacts from a disaster can be lessened when businesses, emergency personnel and governments put well-designed plans into action. Such planning requires skills in budgeting, administration, management and emergency operation procedures.

What Will You Learn?

The UW-Green Bay Certificate in Emergency Management, Planning and Administration provides coursework in:

- Budgeting
- Mitigation
- Planning
- Responding
- Recovery from natural and man-made disasters

The certificate program is made up of five three-credit courses:

Code	Title	Credits
PU EN AF 535	Principles and Practices of Emergency Management	3
PU EN AF 536	Strategic Emergency Preparedness, Planning and Implementation	3
PU EN AF 537	Disaster Response Operations and Management	3
PU EN AF 538	Disaster Recovery	3
PU EN AF 559	Political and Policy Dimensions of Emergency Management	3
Total Credits		15

Courses are taught by university faculty members and knowledgeable professionals from the community.

Who Should Enroll?

The courses offered in the Emergency Management, Planning and Administration program are designed for those already in the profession as well as those pursuing an interest in the field. This includes:

- Public safety personnel (emergency management, airport personnel, fire and police)
- General public-sector managers responsible for emergency management
- Industrial emergency responders (fire and hazardous materials)
- Institutional emergency planners (schools, hospitals and prisons)
- Business continuity planners (banking, manufacturing, insurance and corporations)
- Individuals from nonprofit agencies

What Is The Course Delivery Option?

Students and instructors will meet face-to-face three weekends each semester (Friday evening and all day Saturday). Courses will be held in Green Bay. See our website, www.uwgb.edu/em/, for hotels and motels close to the course site.

How Long Will It Take To Complete The Certificate?

The certificate can be completed in two years.

Admission Requirements

Graduate credit can be earned if you are a holder of a baccalaureate degree from an accredited institution. Admission to the University is required for certificate program participants. If you have attended UW-Green Bay, you must re-apply unless you have been enrolled during the preceding semester. The application form is posted on our website (www.uwgb.edu/em/) or you can receive one by calling us. For further information call (800) 892-2118, and ask for Kassie VanRemortel for assistance.

Graduate Course Descriptions

Applied Biotechnology (ABT)

Courses

ABT 700. Principles of Biotechnology. 3 Credits.
Principles and techniques pertaining to biotechnology and its applications to our society. Survey of classical and emerging techniques.
Fall and Spring.

ABT 705. Ethics, Safety, and Regulatory Environments in Biotechnology. 3 Credits.
Ethical and safety concerns in development, production, funding, and application of biotechnology. Analysis of socioeconomic impacts. Understanding the importance of data integrity. Overview of risk assessment and management in a regulatory environment designed to ensure safety of workers, study subjects, and patients, and protect intellectual property, data, and the environment.
Fall and Spring.

ABT 710. Professional and Technical Communication in Biotechnology. 3 Credits.
Application and analysis of professional scientific communication, both written and oral. Focuses on designing documents that convey complex, data-rich technical and scientific content to audiences with diverse information needs using a variety of professional genres, including reports, proposals, presentations, and documentation.
Fall and Spring.

ABT 715. Techniques in Biotechnology. 3 Credits.
Application of biological and chemical methods to modern biotechnological product development. Overview of analysis techniques used to characterize products and evaluate quality and safety. Exploration of technological pipeline from conception to market, including proof-of-concept assessment, pre-clinical trials, clinical trials, and post-production testing.
Spring.

ABT 720. Experimental Design and Analysis in Biotechnology. 3 Credits.
Principles of descriptive and inferential statistics with applications in biotechnology including experimental design, quantitative data analysis, and bioinformatic evaluation of complex molecular and biological data sets.
Spring.

ABT 725. Leadership in Organizations. 3 Credits.
Focuses on strategies and tools that managers use to maximize employee contribution and create organizational excellence. Basic business and leadership principles. Best practices to overcome biases that inhibit organizations and teams from communicating effectively. Examples will come from diverse biotechnology fields, including pharmaceutics, agriculture, and biotechnology services.
Spring.

ABT 735. Quality Control and Validation. 3 Credits.
Focuses on the importance of quality control and validation in biotechnology product design, development, and manufacturing. Explores quality systems and documentation, global quality standards, and methods for assessing validation including installation, operational, and performance qualifications. Overviews biomanufacturing processes, automation, and cGLP/cGMP practices necessary to meet quality standards.

ABT 740. Regulatory Practice and Compliance. 3 Credits.
Identifies and examines the key regulatory agencies and practices that govern the highly regulated and diverse biotechnology industry, both domestically and internationally. Highlights current and emerging FDA and ICH regulations and guidance documents to successfully navigate meeting with the agencies and to submit required documentation for successful product development.

ABT 745. Industrial Applications in Regulatory Affairs. 3 Credits.
Examines the global regulatory environments in risk-based assessment of biotechnological developments across diverse sectors, ensuring consumer and environmental protection. Addresses how validation is essential to the incorporation of emerging technologies into viable, accessible, and successful products. Highlights the stakeholders' role in regulatory oversight and policy through relevant industry case studies.

ABT 750. Biotechnology Marketing and Entrepreneurship. 3 Credits.
Examines marketing case studies in diverse areas of biotechnology. Addresses marketing fundamentals and strategies, communicating value proposition strategy, ethical and regulatory concerns, startup strategies, pharmaceutical marketing, b2b marketing, salesforce development, branding, and promotion. Culminates with the creation of a marketing plan/analysis.

ABT 755. Global Operations and Supply Chain Management. 3 Credits.
Focuses on the strategic importance of operations and supply chain to overall performance relevant to a variety of business processes specific to biotechnology. Topics include production, transportation, distribution systems, sourcing, and purchasing.

ABT 760. Quality and Project Management. 3 Credits.
Quality and project management issues and roles during different phases from R&D to market in the biotechnology industry. Introduction to Installation qualification, operation qualification and process qualification (IQ/OQ/PQ). Project management phases: conceptualizing, planning, executing and closing. Project schedule and time management tools and techniques. Project requirements including quality assurance.

ABT 765. Assessing Innovation in Biotechnology. 3 Credits.
A survey of biotechnology assessments in areas such as regenerative medicine, agricultural biotechnology, and bioremediation. Course links disciplines with the critical evaluative role played by scientific discovery, market valuation, intellectual property, freedom-to-operate (FTO), and licensing strategy by assessing the role each played in the commercialization of a specific technology.

ABT 770. Product Development. 3 Credits.
Explores strategies in evaluating and implementing new technologies or products in the context of different bioindustries. Identifies considerations in product valuation, feasibility of production, scalability, and supply chain management. Models the process of business growth and innovation through integration of emerging technologies.

ABT 775. Tools for Data Analysis. 3 Credits.
Using a variety of existing and emerging bioinformatics tools and computational methods, emphasizes hands-on experiences analyzing and interpreting large data sets (e.g. genomic, proteomic, microbiomics, interactome, target discovery). Students will also evaluate and adapt existing computational approaches for specific use in solving a problem in biotechnology.

ABT 789. Pre-capstone. 1 Credit.
Prepares the student for applied self-directed capstone experience. Addressing problem identification, research, and project formulation. Culminates in an oral and written proposal with project schedule.

ABT 790. Capstone. 3 Credits.
Student will complete a project (report, business plan, program, etc.) in an area of quality assurance and compliance, business and management, and/or research and development. Culminating in a substantive body of work, executive summary, and reflection. Networking and communication in a professional capacity is expected.

Athletic Training (AT)

Courses

AT 541. Gross Human Anatomy. 3 Credits.
Investigation of human musculoskeletal and neuromuscular anatomy through hands-on study of human cadavers. Students will learn detailed human anatomy for a specific area of interest by dissecting and identifying anatomical components of that area.
P: Acceptance into the MAT.

AT 551. Pathophysiology and Mechanics of Injury. 2 Credits.
Fundamental concepts of physiological and mechanical causes of injury, and the body's response will be presented in this class. Topics covered include tissue response to injury and the healing process.
P: Admitted to the MAT.

AT 561. Health Promotion Through the Lifespan. 2 Credits.
This course examines the role of the athletic trainer in community health and develops applied knowledge and skills in health behavior and health promotion to meet the health needs of diverse communities.
P: AT 551
Fall Only.

AT 601. Foundational Practices in Athletic Training. 2 Credits.
This course provides students in athletic training an introduction to the foundational practices of the profession. Topics covered include basic assessment procedures, and injury prevention and management techniques.
P: Acceptance into the MAT.

AT 610. Psychosocial Aspects of Injury and Healing. 2 Credits.
This course will examine the psychological factors involved in injury and the rehabilitation process. Topics covered include impact of stress on injury, psychological reactions to injury, adherence to injury rehabilitation programs, the application of psychological skills (e.g., goal setting, imagery, confidence) and returning to performance after injury.
P: AT 601.

AT 620. Evaluation and Management of Acute/Emergent Conditions. 3 Credits.
This course is designed to provide athletic training students with the knowledge and experience to evaluate and manage patients with acute conditions, including triaging conditions that are life threatening. Conditions covered in this class include, but are not limited to: Cardiac compromise, cervical spine injury, traumatic brain injury, drug overdose, and wound care.

AT 700. Evidence Based Patient Care. 2 Credits.
This course will introduce students to the concepts of integrating the best available evidence, clinical expertise, and the needs of the patient to maximize patient outcomes. Topics covered include development of clinical questions, diagnostic accuracy, and us of outcome measures.
P: AT 601
Fall Only.

AT 705. Therapeutic Interventions. 4 Credits.
Theories and concepts in the appropriate application and utilization of therapeutic modalities and exercise in the treatment of orthopedic injuries. Topics covered include physiological responses, indications, contraindications, and appropriate use and selection of therapeutic modalities and exercise.
P: Acceptance into the MAT.

AT 709. Nutritional and Pharmacological Interventions. 2 Credits.
Introduction to principles of nutrition and pharmacology for athletic trainers. Nutrition component stresses general nutrition concepts with a focus on health promotion and therapeutic nutrition. Pharmacology focus is related to overview of pharmacology, review of pharmacokinetics, drug classifications, and administration of therapeutic medications commonly prescribed for acute and chronic health problems and injuries.
P: AT 705.

AT 710. Evaluation and Management of Musculoskeletal Injury I. 4 Credits.
This course teaches injury evaluation and management techniques of the lower extremity and lumbosacral region. Topics covered include methods of evaluation, immediate management, and rehabilitation for the foot, ankle, knee, hip, pelvis, and lumbar spine.
P: AT 705
Fall Only.

AT 720. Evaluation and Management of Musculoskeletal Injury II. 4 Credits.
This course teaches injury evaluation and management techniques of the upper extremity and thorax and cervical regions. Topics covered include methods of evaluation, immediate management, and rehabilitation for the shoulder, elbow, forearm, wrist, hand and cervical spine.
P: AT 710
Spring.

AT 730. Evaluation and Management of Head Injuries. 2 Credits.
This course teaches injury evaluation and management techniques of the head. Topics covered include methods of evaluation, immediate management, and rehabilitation for traumatic brain injury and facial injuries.
P: AT 710
Spring.

AT 740. Evaluation and Management of General Medical Conditions. 3 Credits.
This course teaches recognition, evaluation, immediate management, and treatment of non-orthopedic medical conditions. Students will gain the knowledge and skills required to recognize, refer, and treat, as appropriate, internal injuries, general medical conditions, and disabilities of athletes and others involved in physical activity.
P: AT 709, 710, 720.

AT 745. Interprofessional Education Seminar. 1 Credit.
Contemporary health care involves teams to provide care to patients with a multitude of injuries and other medical conditions. This course provides students an opportunity to learn about the roles of various members of the health care team, and how to effectively work in teams with members from other health professions.
P: AT 700
Spring.

AT 750. Athletic Training Administration. 2 Credits.
An introduction to management, leadership, financial strategies, professional development and legal issues related to the athletic training setting.
P: AT 740.

AT 755. Healthcare Communication. 1 Credit.
Provides athletic training students the opportunity to improve patient communication skills while working directly with a physician in the evaluation and management of injuries sustained during physical activity.
P: AT 750
Fall Only.

AT 760. Clinical Education I. 2 Credits.
This course allows the athletic training student the opportunity to develop proficiency in athletic training clinical skills in a laboratory and clinical setting, with an emphasis placed on real-life patient interaction. The focus of this course is on equipment intensive experiences and the evaluation and management of acute and emergent conditions during a 14-week clinical education experience.
P: AT 601, 720
Fall Only.

AT 761. Clinical Education II. 2 Credits.
This course allows the athletic training student the opportunity to develop proficiency in athletic training clinical skills in a laboratory and clinical setting, with an emphasis placed on real-life patient interaction. The focus of this course is on the evaluation and management of musculoskeletal injury and illness in the extremities during a 14-week clinical education experience.
P: AT 760
Spring.

AT 762. Clinical Education III. 2 Credits.
This course allows the athletic training student the opportunity to develop proficiency in athletic training clinical skills in a laboratory and clinical setting, with an emphasis placed on real-life patient interaction. The focus of this course is on the evaluation and management of head injuries and general medical conditions during a 7-week clinical education experience.
P: AT 761
Fall Only.

AT 763. Clinical Education IV. 2 Credits.
This course is designed to allow students to demonstrate proficiency in athletic training clinical skills during a 7-week immersive clinical experience.
P: AT 762
Fall Only.

AT 764. Clinical Education V. 6 Credits.
This course is designed to allow students to demonstrate proficiency in athletic training clinical skills during a 14-week or two 7-week immersive clinical experience.
P: AT 763
Spring.

AT 780. Research Methods and Statistics in Athletic Training. 3 Credits.
Interpretation of statistical procedures and research design commonly used in athletic training research. Prepares students to conduct research projects related to the field of athletic training.
P: AT 750.

AT 789. Athletic Training Research Seminar. 2 Credits.
Students will explore research and evidence-based practices within the field of athletic training. Students will begin the process of developing a capstone project in this class.
P: AT 780
Fall Only.

AT 790. Athletic Training Capstone Project. 3 Credits.
Students will complete a capstone project related to one of the practice domains in athletic training.
P: AT 780, 789
Spring.

Biology (BIOLOGY)

Courses

BIOLOGY 510. Plant Biodiversity. 4 Credits.
An introduction to the diversity of vascular plants, with an emphasis on flowering plants. Lectures cover both organismal and phylogenetic/evolutionary perspectives on plant systematics, including the use of genetic and genomic data for understanding plant evolution. The laboratory presents a survey of vascular plant diversity, covering structural characteristics of major plant families and the identification of seed plants of Wisconsin to the species level.
P: graduate status
Spring Even.

BIOLOGY 511. Plant Physiology. 4 Credits.
General physiology of vascular plants within the context of a plant life cycle: seed dormancy and germination, metabolism, transport systems, mineral nutrition, patterns of plant growth and development, growth regulators, reproduction and senescence.
P: gr st.
Fall Only.

BIOLOGY 512. Mycology. 4 Credits.
Broad taxonomic survey of fungi. Morphology, reproduction, physiology, genetics, evolution, and ecology. Role in nutrient cycling, plant disease, human welfare and biotechnology. Techniques in collection, identification, pure culture isolation, and nucleic acid applications.
P: gr student
Fall Odd.

BIOLOGY 520. Field Botany. 3 Credits.
Identification and natural history of plants indigenous to northeastern Wisconsin.
P: graduate status
Fall Only.

BIOLOGY 522. Environmental Microbiology. 4 Credits.
This course will focus on the diversity and role of microorganisms in diverse and complex environments, including the use and management of these organisms for the benefit of ecosystems and society.
P: graduate status
Spring.

BIOLOGY 541. Ichthyology. 4 Credits.
An examination of the biology of fishes including classification, phylogeny, functional morphology and population characteristics. Aspects of the ecology of the fishes will be studied in relation to behavior, distribution, diversity and production in freshwater environments
Spring Even.

BIOLOGY 542. Ornithology. 3 Credits.
Overview of avian biology, emphasizing adaptation and ecology. Identification of North American bird species and other avian families. Region's most interesting birding areas.
P: graduate status
Spring Even.

BIOLOGY 543. Mammalogy. 3 Credits.
Comprehensive study of mammals, including systematics, anatomy, physiology, behavior, and ecology. Laboratory studies include work with specimens from the Richter Natural History Museum.
P: gr st.
Spring Odd.

BIOLOGY 555. Entomology. 4 Credits.
Structure, function, diversity, and ecology of insects, as well as their impact on human society. Lab develops ability to identify Wisconsin insects, both in the field and by examining microscopic anatomy.
P: graduate status
Fall Odd.

BIOLOGY 557. Marine Biology. 4 Credits.
The Ocean covers about 71% of the Earth’s surface and so is obviously a huge part of the functioning biosphere. Life emerged in the Ocean but since we are terrestrial beings, Ocean life remains less well known than terrestrial life. This course serves as an overview of marine biodiversity and marine ecosystems in which the concepts learned in general biology courses can be applied to marine life. We will cover the abiotic functioning of the Ocean in order to understand the unique challenges that marine organisms face, and we will focus on an understanding of the diverse array of marine organisms, how they interact ecologically, and how humans are affecting marine ecosystems worldwide.
Fall Even.

BIOLOGY 601. Fish and Wildlife Population Dynamics. 3 Credits.
The course will introduce students to principles of population ecology and how such principles relate to basic models of wildlife and fish population dynamics. This course will also give students practical experience manipulating population dynamics models using computer applications.
P: BIOLOGY 203. REC: ENV SCI 302
Spring Odd.

BIOLOGY 602. Advanced Microbiology. 4 Credits.
Detailed study of microorganisms from viruses to fungi in their environment. Study of both free-living and pathogenic organisms and their degrading abilities.
P: gr st.
Spring Even.

BIOLOGY 607. Molecular Biology. 3 Credits.
Molecular approaches to biological problems, emphasizing study of informational macro molecules. Topics include replication, control, expression, organization, and manipulation of genes; RNA processing; protein processing; transposons; oncogenies, growth factors; genetic control of development and the immune system.
P: graduate status
Spring Odd.

BIOLOGY 608. Molecular Biology Laboratory. 1 Credit.
Molecular biology of nucleic acids and the techniques that form the basis of biotechnology. Topics include electrophoresis, restriction mapping, hybridization, plasmid analysis, and DNA cloning (recombinant DNA library construction, screening, and mapping).
P: graduate status
Spring Odd.

BIOLOGY 649. Wetland Ecology. 3 Credits.
This course explores the ecology and conservation of wetlands, including biological, physical, chemical and hydrological attributes of wetland ecosystems. The curriculum will survey major wetland types in both freshwater and marine environments, the general biogeochemical dynamics of wetland ecosystems, and the ecological diversity of wetland vegetation and fauna. Field trips and in-class exercises will provide training in the identification of wetland types and features, including biological and physical characteristics of wetlands in the western Great Lakes. A field project will focus on wetland delineation and assessment of wetland quality, including analysis of restoration methods and conservation management.
P: ENV SCI 302
Spring.

BIOLOGY 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: cons of instr & prior trip arr & financial deposit.

Chemistry (CHEM)

Courses

CHEM 520. Thermodynamics and Kinetics. 3 Credits.
Temperature, heat and work, thermodynamic properties of gases, solids and solutions; homogeneous and heterogeneous equilibria; thermodynamics of electrochemical cells; statistical thermodynamics; calculation of thermodynamic properties; chemical kinetics.
P: graduate status
Fall Only.

CHEM 522. Therymodynamics and Kinetics Laboratory. 1 Credit.
Laboratory course to accompany Chem 520.
P: gr st; and Chem 520 or conc enr
Fall Only.

CHEM 530. Biochemistry. 3 Credits.
Nature and function of the important constituents of living matter, their biosynthesis and degradation; energy transformation, protein synthesis and metabolic control.
P: gr st.
Fall Only.

CHEM 531. Biochemistry Laboratory. 1 Credit.
Laboratory course to accompany Chem 530.
P: gr st.
Fall Only.

CHEM 602. Advanced Organic Chemistry. 3 Credits.
Physical organic approach to chemistry; reaction mechanisms, molecular orbital theory, conservation of orbital symmetry, aromaticity, stereochemistry, linear free energy relationships, isotopes effects, pericyclic reactions, photochemistry, natural products and advanced topics in molecular spectroscopy.
P: gr st.
Fall Odd.

CHEM 603. Advanced Organic Chemistry Laboratory. 1 Credit.
Laboratory course to accompany Chem 602; advanced molecular spectroscopy, organic qualitative analysis, physical organic chemistry experiments.
P: Chem 602 or conc enr.
Fall Odd.

CHEM 613. Instrumental Analysis. 4 Credits.
Theory and practice of analysis by instrumental methods, including methods based on absorption and emission of radiation, electroanalytic methods, chromatographic methods and radiochemical methods.
P: gr st.
Fall Only.

CHEM 617. Nuclear Physics and Radiochemistry. 3 Credits.
Properties and reactions of atomic nuclei; application of the properties of radioactive nuclei to the solution of chemical, physical, biological and environmental problems.
P: gr st.
Spring Even.

Computer Science (COMP SCI)

Courses

COMP SCI 651. Database Management Systems. 3 Credits.
Relational database technology, structured query language, experience on both mainframe and PC databases, security, integrity rules, design issues, normal forms, and entity-relation modeling.
P: gr st.
Fall Only.

Data Science (DS)

Courses

DS 700. Foundations of Data Science. 3 Credits.
This course provides an introduction to data science and highlights its importance in business decision making. It provides overview of commonly used data science tools along with spreadsheet, database, statistics and programming assignments to lay the foundation for data science applications.
Fall and Spring.

DS 705. Statistical Methods. 3 Credits.
Statistical methods and inference procedures will be presented in this course with an emphasis on applications, computer implementation, and interpretation of results. Topics include simple and multiple regression, model selection, correlation, moderation/interaction analysis, logistic regression, chi-square test, ANOVA, Kruskal-Wallis test, MANOVA, factor analysis, and canonical correlation analysis.
Fall and Spring.

DS 710. Programming for Data Science. 3 Credits.
Introduction to programming languages and packages used in Data Science.
Fall and Spring.

DS 715. Data Warehousing. 3 Credits.
Introduces the concepts and techniques to work with and reason about subject-oriented, integrated, time-variant, and nonvolatile collections of data in support of management's decision-making process.
Fall and Spring.

DS 730. Big Data: High-Performance Computing. 3 Credits.
This course will teach students how to process large datasets efficiently. Students will be introduced to non-relational databases. Students will learn algorithms that allow for the distributed processing of large data sets across clusters.
P: DS 710
Fall and Spring.

DS 735. Communicating About Data. 3 Credits.
This course will prepare you to master technical, informational and persuasive communication to meet organizational goals. Technical communication topics include a study of the nature, structure and interpretation of data. Informational communication topics include data visualization and design of data for understanding and action. Persuasive communication topics include the study of written, verbal and nonverbal approaches to influencing decision makers.
Fall and Spring.

DS 740. Data Mining. 3 Credits.
Data mining methods and procedures for diagnostic and predictive analytics. Topics include association rules, clustering algorithms, tools for classification, and ensemble methods. Computer implementation and applications will be emphasized.
P: DS 705, DS 710
Fall and Spring.

DS 745. Visualization and Unstructured Data Analysis. 3 Credits.
This course covers two aspects of data analytics. First, it teaches techniques to generate visualizations appropriate to the audience type, task, and data. Second, it teaches methods and techniques for analyzing unstructured data – including text mining, web text mining and social network analysis.
P: DS 700, DS 705, DS 710, DS 740
Fall and Spring.

DS 760. Ethics of Data Science. 3 Credits.
This course explores ethical issues related to data science, including privacy, intellectual property, security, and the moral integrity of inferences based on data.
P: DS 700 or DS 780
Fall and Spring.

DS 775. Prescriptive Analytics. 3 Credits.
This course covers procedures and techniques for using data to inform the decision-making process. Topics include optimization, decision analysis, game theory, simulation, and others as time allows. Case studies and applications will be emphasized.
P: DS 705
Fall and Spring.

DS 780. Data Science and Strategic Decision Making. 3 Credits.
The course will investigate the use of data science findings to develop solutions to competitive business challenges. Case studies will be reviewed to examine how data science methods can support business decision-making. A range of methods the data scientist can use to get people within the organization onboard with data science projects will be reviewed.
Fall and Spring.

DS 785. Capstone. 3 Credits.
Capstone course in which students will develop and execute a project involving real-world data. Projects will include: formulation of a question to be answered by the data; collection, cleaning and processing of data; choosing and applying a suitable model and/or analytic method to the problem; and communicating the results to a non-technical audience.
P: DS 700, DS 705, DS 710, DS 715, DS 730, DS 735, DS 740, DS 745, DS 775
Fall and Spring.

Economics (ECON)

Courses

ECON 602. Environmental and Resource Economics. 3 Credits.
Applications of tools such as cost-benefit analysis and other economic concepts in current public decision making, with special emphasis upon common property resources management.
P: gr st.
Fall and Spring.

ECON 612. Economics of Sustainability. 3 Credits.
Exploration of the economic conditions for, requisites of, and policy to encourage social, ecological and economic sustainability.
P: gr st.
Spring.

ECON 653. Cost Benefit Analysis. 3 Credits.

Education (EDUC)

Courses

EDUC 515. Teaching English as a Second Language. 3 Credits.
Basic methods of teaching English to non-native speakers and the underlying theories from linguistics, psychology, education and sociolinguistics; development and evaluation of lessons for the ESL classroom.
P: gr st.
Fall Only.

EDUC 519. Adolescent Literature in Middle and Secondary School Reading. 3 Credits.
Design and content of effective adolescent literature programs; analysis and evaluation of adolescent literature; current practices in literacy curricula; adolescent literature and personal development; literature and social issues.
P: gr st.
Spring Odd.

EDUC 540. Introduction to Learning Disabilities and Emotional Disturbance. 3 Credits.
This course will provide students with the history, definitions, etiology, methodology and programming options for students with learning and/or emotional disabilities.
P: gr st.

EDUC 541. Normal and Abnormal Language Development. 3 Credits.
Introduction to communication and normal and abnormal language development in relationship to cognitive development.
P: gr st.

EDUC 542. Teaching Methods for Diverse Learners. 2 Credits.
A study of instructional methods and materials for teaching diverse learners.
P: gr st.
Fall Odd.

EDUC 543. Educational Assessment. 2 Credits.
This course will focus on the study of the principles, procedures, interpretation, and administration of formal and informal student assessment.
P: gr st.
Fall Odd.

EDUC 544. Principles of Career and Vocational Education. 1 Credit.
This course will focus on the study of curriculum and instructional approaches that contribute to the preparation for the world of work.
P: gr st.
Fall Odd.

EDUC 545. The Exceptional Child in Regular Education. 2 Credits.
This course will focus on the study of instructional techniques and programming options designed to increase the success of students learning and/or behavior disabilities served within inclusionary settings. P: gr st.
P: gr st.

EDUC 546. Collaborative Strategies for Working w/Colleagues, Parents, Community. 2 Credits.
This course will focus on the study of collaborative models and practices used within a variety of educational and relevant community settings and help students to develop the communications skills necessary to interact effectively with individuals in schools, agencies, and the community. P: gr st.
P: gr st.

EDUC 547. Classroom and Behavior Management Strategies. 2 Credits.
This course will address various theories and models for organizing and maintaining an effective classroom as well as strategies for working with individuals and groups. P: gr st.
P: gr st.

EDUC 552. Social and Family Influences on Development and Learning. 3 Credits.
An ecological systems approach to understanding social and family influences that affect success or failure in the first years of school. Includes discussion of recent child development and education risk theories, research, and practitioner accounts. Survey of effective prevention and intervention programs for young children (prenatal - 8 yrs.) and families at-risk.
P: graduate status
Spring.

EDUC 606. Evaluation and Testing in Education. 2-3 Credits.
Techniques for constructing tests and measurement systems; statistical procedures applied to classroom data; monitoring and assessing individual and group learning situations; using and interpreting data from standardized tests. P: gr st. (SO)
P: gr st.
Spring Odd.

EDUC 615. Counseling Role of the Classroom Teacher. 3 Credits.
Specific counseling and guidance skills necessary for guidance effectiveness of the classroom teacher and their implementation in the classroom. P: gr st.
P: gr st.

EDUC 620. Workshop in Economics Education. 1-3 Credits.
Workshop is designed to provide information on selected current economic topics and concepts; enables educators to examine new print and non-print instructional materials and curriculum guides; and develop learning activities appropriate to their instructional responsibilities. Different topics are selected each year for focus. Topic will be identified by subtitle with each offering. May be repeated for credit. P: May be repeatable for credit. None.

EDUC 621. Literacy and Language Development in Young Children. 3 Credits.
Acquisition of reading skills and development of language in preschool through primary grades; analysis of instructional and diagnostic strategies for listening and reading comprehension, vocabulary development, word identification strategies and approaches to beginning reading. P: gr st. (F,S)
P: gr st.
Fall and Spring.

EDUC 622. Reading in the Content Areas. 3 Credits.
Practical guidelines for classroom teachers in subject areas--English, social studies, mathematics, science, etc.; suggestions for teaching reading and study skills related to content, specialized and technical vocabulary; dealing effectively with reading problems in the content areas as it relates to the Common Core State Standards (CCSS).
P: graduate status
Fall and Spring.

EDUC 646. Trends in Bilingual Education. 3 Credits.
Designed for pre-service teachers and practicing educators, this course is a comprehensive approach to the current trends in Bilingual Education (Spanish/English) that bridges pedagogical theory and practice. Students will be introduced to essential concepts and theories, including effective teaching methodologies, curriculum design and assessment tools. This course will help students develop a sociocultural perspective about the contexts and realities of bilingual learners.
Spring.

EDUC 652. Principles of Middle Level Education. 3 Credits.
This course provides students with an introductory understanding of the philosophy and organization of middle level education. Emphasis is directed toward programmatic considerations. P: gr st and exper in educ. (F,S)
P: gr st and exper in educ.
Fall and Spring.

EDUC 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: cons of instr & prior trip arr & financial deposit.

EDUC 701. Reflective Inquiry. 4 Credits.
Participants will gain knowledge, skills and dispositions appropriate to engage in systematic oral and written reflection on their educational practice and the role of classroom-based inquiry.
P: gt st and adm to Ms Tch Lrn.
Fall Only.

EDUC 702. Approaches to Educational Inquiry. 4 Credits.
Participants will gain relevant knowledge, skills, and dispositions regarding approaches to inquiry and educational research related to specific areas and questions.
P: EDUC 701 and gr st and adm to MS TCH LRN
Spring.

EDUC 703. Contemporary Issues and Historical Contexts. 4 Credits.
Participants will share the challenges and questions as they progress with their individual research projects. Course content will support the development of knowledge related to educational research within a multiple perspective approach.
P: EDUC 702 and gr st and adm to MS TCH LRN
Fall Only.

EDUC 704. Applied Educational Leadership. 3 Credits.
Participants will gain knowledge, skills, and dispositions in leadership, educational reform, and systems theory. Course content will focus on the environments and processes that lead to meaningful change, and the design of an individual plan.
P: EDUC 703 and gr st and adm to MS TCH LRN
Spring.

EDUC 705. Reading in the Elementary School. 3 Credits.
Consideration of components of a developmental reading program for the elementary school including the role of language in reading, basic reading skills and attitudes, methods and materials, individualization of instruction, and evaluation. P: gr st.
P: graduate status.

EDUC 706. The Administrator and the Community. 3 Credits.
This course will concentrate on the relationship of schools and communities in American society. Students will be oriented to the relationships between schools and communities; public participation in local school districts, and response of local school districts to changing demands. Primary emphasis will be on the school administrator and citizens at the local level. P: gr st.
P: graduate status.

EDUC 709. Effective Schools. 3 Credits.
An in-depth review and analysis of the growing body of educational research literature that identifies elements and conditions present in effective schools. Participants develop ways of assessing the extent to which these elements are present in schools and explore implications for school practices.
P: gr st.
P: graduate status.

EDUC 710. Practicum in Effective Instructional Skills. 2 Credits.
For teachers and supervisors currently involved in schools: analysis and application of effective teaching concepts and skills, including teacher demonstrations and simulations. P: gr st.
P: graduate status.

EDUC 714. Workshop in High School Program Development. 2 Credits.
Selected topics for the professional educator in curriculum, instructional procedures, and evaluation of middle level program development. Current issues, philosophical trends, and rationale are discussed. Variable content; may be repeated for credit with different topics. P: May be repeatable for credit. gr st.
P: graduate status.

EDUC 715. Workshop in Program Development in Middle Level Education. 2-3 Credits.
Selected topics for the professional educator in curriculum, instructional procedures, and evaluation of middle level program development. Current issues, philosophical trends, and rationale are discussed. P: May be repeatable for credit. gr st.
P: graduate status.

EDUC 716. PROGRAM DEVEL MID LEV EDUC. 2-3 Credits.
P: gr st.
P: graduate status.

EDUC 730. Issues & Trends for Educating Students w/Exceptional Educ Needs. 3 Credits.
Relevant issues and practices which impact the education of students with exceptional needs including gifted and talented, handicapped, and at-risk populations. P: gr st.
P: graduate status.

EDUC 740. Supervision of Instruction. 3 Credits.
This graduate class examines functions of supervision, inclusive of personnel evaluation and professional development. Skill development in communications and human relations for school supervisors are included. P: gr st.
P: graduate status.

EDUC 750. Statistical Methods Applied to Education. 3 Credits.
Types of measures, data organization and display, measures of central tendency, variability, location, and correlation, hypothesis testing and interval estimation for common statistics in one and two sample cases. Introduction to analysis of variance and chi-square. P: gr st. (FO)
P: graduate status
Fall Odd.

EDUC 765. Diagnosis of Reading Difficulties. 3 Credits.
Comprehensive and accurate diagnosis of moderate to severe reading disabilities and associated learning, language, or behavior disorders through the use of formal and informal instruments. Students complete an intensive diagnosis of a student's reading ability, a comprehensive report specifying the results of the evaluation, and a prescription for future remediation of reading problems. P: gr st; REC: Adm Sci 753. (SE)
P: gr st; REC: Adm Sci 753.
Spring Even.

EDUC 780. Foundations of Curriculum. 3 Credits.
This course for experienced educators will focus on the philosophical, sociological, historic and psychological underpinnings of curriculum design, development and evaluation for the elementary, secondary and VTAE educator. The course will examine the forces influencing curriculum development and identify issues related to curriculum design and development. P: gr st and exper with elem, sec or WTCS educ.
P: gr st and exper with elem, sec or WTCS educ.

EDUC 781. School Profiling for Site Based Management. 3 Credits.
The purpose of this course is to train teachers and principals to gather, summarize, and analyze data related to important building level educational outcomes. Outcomes in the area of student achievement, social behaviors, and parent, staff, and student attitudes will be measured and analyzed. The course is intended to facilitate school improvement at the building level through data driven decision making. P: gr st.
P: graduate status.

EDUC 783. SELECTED TOPICS. 1-4 Credits.
P: May be repeatable for credit. gr st.
P: graduate status.

EDUC 785. Curriculum and Instruction as a Field of Inquiry. 3 Credits.
An inquiry approach to the content of curriculum and instruction: develops skills in interpreting and using research and provides a framework related to origin, development, and basis of curriculum and instruction. P: gr st.
P: graduate status.

EDUC 786. Current Issues and Trends in Education. 3 Credits.
This class critically examines and evaluates recent educational innovations, differing educational viewpoints, and alternative educational trends. Particular attention is focused on educational practices for the future. P: gr st. (F)
P: graduate status
Fall Only.

EDUC 788. The Teacher and the Law. 3 Credits.
Concerns of teachers relating to tenure, non renewals, due process, free speech, student rights, and potential liability; the administration of collective bargaining in education; brief introduction to the statutory regulation and financing of school systems. This course will consider these topics with an emphasis on Wisconsin. P: gr st.
P: graduate status.

EDUC 795. Special Topics. 1-4 Credits.
A course offered by graduate faculty in response to a special need and which is not intended to become a regular part of the graduate curriculum. The title of the specific topic is announced in the Timetable and is entered on the transcript of students who enroll. This course may be repeated with a change in topic. Subject to adviser's approval, three credits may be applied to meet UW-Green Bay credit requirements in a cooperative program with the possibility of a maximum of three additional credits. P: May be repeatable for credit. gr st.
P: graduate status.

EDUC 797. Internship. 1-6 Credits.
P: May be repeatable for credit. gr st. (F,S)
P: graduate status
Fall and Spring.

EDUC 798. Independent Study. 1-3 Credits.
Reading and research under the supervision of a member of the graduate faculty. Independent study credits may only be earned when included as part of an approved program plan. P: May be repeatable for credit. gr st. (F,S)
P: graduate status
Fall and Spring.

EDUC 799. Thesis. 1-6 Credits.
P: May be repeatable for credit. None.

Environmental Science & Policy (ENV S&P)

Courses

ENV S&P 701. Perspectives in Environmental Science and Policy. 1 Credit.
Introduces new Environmental Science & Policy graduate students to program requirements, expectations, resources, and faculty members.
P: graduate status
Fall and Spring.

ENV S&P 713. Environmental & Natural Resource Economics. 3 Credits.
Addresses public policy issues related to energy and other natural resources from the perspective of environmental economics. Topics include fossil energy, nuclear energy, solar and other alternative sources of energy; natural resources ranging from soil, water and minerals to wildlife, forests and parks.
P: gr st; REC: Pu En Af 608 and Env S&P 752.
Fall Even.

ENV S&P 715. Seminar in Ecology and Evolution. 1 Credit.
This graduate course provides a forum for discussion of contemporary ideas in ecology and evolution. Students and faculty discuss weekly readings in an informal atmosphere. Topics are chosen from the current scientific literature; examples from recent semesters include ecosystem stability, competition and coexistence, group selection, trophic dynamics, and complex species interactions.
P: gr st.
Fall and Spring.

ENV S&P 724. Hazardous and Toxic Materials. 3 Credits.
The handling, processing, and disposal of materials which have physical, chemical, and biological properties that present hazards to human, animal, and plant life; procedures for worker safety and for compliance with regulations. The metals and nonmetals, carcinogens, radioactive materials, and pathogenic human, animal, and plant wastes.
P: Graduate status
Spring Odd.

ENV S&P 740. Ecology and Management of Ecosystems. 3 Credits.
This course addresses our current scientific understanding of ecosystems, and the application of this knowledge for the sustainable management of both human dominated and natural ecosystems and the biodiversity that they support.
P: gr st.
Spring Even.

ENV S&P 743. Landscape Ecology. 3 Credits.
Landscape ecology emphasizes spatial patterning and focuses on ecological dynamics over large regions. Concepts and methods will be studied through lectures, readings, discussions, and practical applications. Prior experience with specific computer programs not required.
P: gr st; REC: prior cse in ecological studies and statistics.
Spring Odd.

ENV S&P 752. Environmental Policy and Administration. 3 Credits.
The political and institutional aspects of environmental policy-making and implementation, including issues in environmental policy analysis. Emphasis is on national policy processes in the United States, but attention is given also to global and state and local environmental problems and public policy.
P: gr st.
Fall Odd.

ENV S&P 755. Environmental Data Analysis. 4 Credits.
This course emphasizes the principles of data analysis using advanced statistical software (such as R, SAS, etc.). It employs primarily environmental examples to illustrate procedures for elementary statistical analysis, regression, analysis of variance and nonparametric statistics.
P: intro stats cse and grad st.
Fall Only.

ENV S&P 760. Social Research Methods. 3 Credits.
Theory and methods of research in the social sciences. Topics include the philosophy of science, research designs, data collection and program evaluation. Emphasis is on applied research.
P: graduate status
Fall Odd.

ENV S&P 762. Project Proposal. 3 Credits.
Provides opportunities to identify, develop and refine the non-thesis project proposal. Focuses on key aspects of the proposal including the project statement, expectations, deliverables, and abstract. Culminates in the submission of Approval of Thesis or Project Proposal (GR-2 Form).
P: major in Ms Env Sci
Spring.

ENV S&P 763. Capstone in Environmental Science and Policy. 3 Credits.
Capstone course of the program in Environmental Science and Policy. This course provides an overview of contemporary topics in global environmental change from the local to global scale, with emphasis placed on scientific evidence, policy approaches, public attitudes, and sustainable solutions. Both policy and scientific aspects of the topics are addressed.
P: major in Ms Env Sci and grad earned cr > or = 17.
Spring.

ENV S&P 767. Environmental Technology and Analysis. 3 Credits.
This course addresses our current scientific understanding of environmental remediation, waste transformation, utilization and disposal, as well as the chemical, biological and geological aspects of ground or surface water systems. Emphasis is on evaluating alternative technologies and strategies for generating ecologically sustainable systems.
P: enrollment in ES&P graduate program or instructor approval
Spring Odd.

ENV S&P 768. Project Defense. 3 Credits.
This is the defense of the non-thesis project. Course activities include the presentation of non-thesis projects at an open symposium and the successful submission and approval of the final non-thesis project. Students also take the programmatic Written Examination required for completion of the non-thesis degree plan. The course culminates in the submission of Approval of Thesis Defense or Project Presentation (GR-4 Form).
P: major in MS Env Sci; Completion of ENV S&P 764
Spring.

ENV S&P 783. VARIABLE CONTENT. 1-4 Credits.
P: gr st.

ENV S&P 795. Special Topics. 1-3 Credits.
Topics vary.
P: graduate status.

ENV S&P 797. Internship. 1-6 Credits.
P: gr st.
Fall and Spring.

ENV S&P 798. Independent Study. 1-3 Credits.
P: gr st.
Fall and Spring.

ENV S&P 799. Thesis. 1-6 Credits.
P: gr st and thesis proposal on file.
Fall and Spring.

Environmental Science (ENV SCI)

Courses

ENV SCI 505. Environmental Systems. 4 Credits.
Physical and chemical aspects of natural environmental processes. The movement, transformation, and fate of materials and contaminants.
P: gr st.
Fall Only.

ENV SCI 518. Pollution Control. 3 Credits.
Government regulations, manufacturing processes, waste minimization, pollution prevention methods and pollution control techniques of major industries.
P: gr st.
Fall Only.

ENV SCI 520. The Soil Environment. 4 Credits.
The physical, chemical and biological properties and principals of soils; formation, classification and distribution of major soil orders; function and management of soils in natural, agricultural and urban environments. Includes field and laboratory experiences.
P: gr st.
Fall Only.

ENV SCI 523. Pollution Prevention. 3 Credits.
Emphasizes principles of pollution prevention and environmentally conscious products, processes and manufacturing systems. Also addresses post-use product disposal, life cycle analysis, and pollution prevention economics.
P: gr st.
Spring Odd.

ENV SCI 530. Hydrology. 3 Credits.
Qualitative study of the principal elements of the water cycle, including precipitation, runoff, infiltration, evapotranspiration and ground water; applications to water resource projects such as low flow augmentation, flow reregulation, irrigation, public and industrial water supply and flood control.
P: gr st.
Fall Only.

ENV SCI 535. Water and Waste Water Treatment. 3 Credits.
Water and waste water treatment systems, including both sewage and potable water treatment plants and their associated collection and distribution systems. Study of the unit operations, physical, chemical and biological, used in both systems.
P: gr st.
Spring.

ENV SCI 537. Environmental GIS. 2 Credits.
This is a project based course where students conduct geospatial data manipulation, analysis and management with a suite of GIS software tools and web-based GIS interfaces. Students will learn about a range of applications of remotely sensed and other geospatial data to natural science problems. Through the course project, students will create a functional GIS to study or model an environmental phenomena or problem.
P: Graduate status and previous GIS experience
Fall and Spring.

ENV SCI 601. Stream Ecology. 4 Credits.
The goal of this course is to develop a profound understanding of the abiotic and biotic processes responsible for shaping the ecosystem in running waters. Focus will be on ecological processes, but nutrient dynamics and fluid mechanics are also important issues as well as the fauna associated to the streambed, mainly macro invertebrates and their ecological role. Theory will be combined with hands on experience providing the student with a tool to manage a stream based on ecological principles.
P: gr st.
Fall Even.

ENV SCI 603. Limnology. 4 Credits.
Limnology is a broad sub-discipline of ecology that is the study of the structural and functional interrelationships of organisms of inland waters as they are affected by their dynamic physical, chemical and biotic environments. In this course, we will examine the dominant organizing principles and the current conceptual advances in the field of limnology focusing on lakes.
P: graduate status
Fall Odd.

ENV SCI 615. Solar and Alternate Energy Systems. 3 Credits.
Study of alternate energy systems which may be the important energy sources in the future, such as solar, wind, biomass, fusion, ocean thermal, fuel cells and magneto hydrodynamics.
P: gr st.
Spring Even.

ENV SCI 621. Geoscience Field Trip. 1-3 Credits.
Intensive three or four-day field study tour of the geology, soils, and landscapes of Wisconsin and/or surrounding states. Each offering will focus on a different geological theme and will focus on a specific region. Cost of transportation, guidebook, meals, and lodging borne by student. Course is repeatable if topics differ; may be taken 6 times for a total of 9 credits.
P: graduate status
Fall and Spring.

ENV SCI 624. Hazardous and Toxic Materials. 3 Credits.
The handling, processing, and disposal of materials which have physical, chemical, and biological properties that present hazards to human, animal, and plant life; procedures for worker safety and for compliance with regulations. The metals and nonmetals, carcinogens, radioactive materials, and pathogenic human, animal, and plant wastes.
P: Graduate status
Spring Odd.

ENV SCI 625. Global Climate Change. 3 Credits.
Examines changes in global climate with emphasis on the processes by which climate change occurs. Focuses on the recent changes in the concentration of atmospheric greenhouse gases and their impact on the earth's global energy budget. Examines the potential environmental impact of a changed climate.
P: Graduate Standing
Spring.

ENV SCI 632. Hydrogeology. 3 Credits.
Introduction to the geological and physical principles governing ground water flow. Description of aquifer properties, chemical processes, equation of flow, well hydraulics, and environmental concerns.
P: gr st.
Spring.

ENV SCI 633. Ground Water: Resources and Regulations. 3 Credits.
An overview of the geology, properties, flow, and pollution of ground water systems. Techniques of aquifer characterization and water quality monitoring are introduced and evaluated. Regulatory and policy approaches to moderate use and ensure adequate high quality supplies of this valuable resource in the future are also reviewed.
P: graduate status
Fall Even.

ENV SCI 634. Environmental Chemistry. 3 Credits.
Physical, chemical, and biological processes affecting the composition of air and water. Chemical reactions in polluted, and unpolluted environments; dispersal processes and methods of control for various pollutants.
P: graduate status
Fall Only.

ENV SCI 660. Resource Management Strategy. 3 Credits.
Application of the principles of systems analysis to the sustainable use of material and energy resources. Emphasis on use of analytical tools of economics (e.g. costs-benefit, cost-effectiveness, and risk-benefit analysis) and the process of public policy making and implementation.
P: gr st.
Fall and Spring.

ENV SCI 664. Atmospheric Pollution and Abatement. 3 Credits.
This course will provide students an understanding of atmospheric processes and weather patterns and how they affect pollutant transport. Sources, sinks, environmental effects, and abatement technologies for air pollutants will be addressed. Atmospheric reactions that create pollution or deplete stratospheric ozone will be included.
P: Graduate status
Fall Odd.

ENV SCI 669. Conservation Biology. 4 Credits.
Overview of the major issues and ecological principles underlying the field of conservation of biology, including patterns and measurement of biological diversity from genetic to community scales.
P: graduate status
Fall Only.

ENV SCI 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: cons of instr & prior trip arr & financial deposit.

First Nations Education (FNED)

Courses

FNED 800. Introduction to Indigenous Education. 3 Credits.
This introductory course provides foundational knowledge for the doctoral program in First Nations Education. The course explores the traditional (precontact) world views of the Indigenous peoples of Turtle Island (North America) with an emphasis on the Nations now located in the western Great Lakes. The course begins with an overview of Indigenous emergence beliefs and practices. First Nations ecological knowledge is central to the course with a focus on original instructions and the traditional relationships of humans to the natural world. Intergenerational teaching and learning in the Four Hills of Life are introduced. Indigenous languages are examined throughout the class with an understanding of the relationship between language and world view. The course further examines the impact of Euro-American colonization on First Nations people, lifeways, and the environment. The impact of colonization on Indigenous social identities is explored with an examination of how colonization disrupted traditional understandings and the intersectionality of citizenship, gender, age, and ability. Decolonization is presented and explored in an effort to re-center Indigenous knowledge systems, educational practices, and ways of being to prepare the path for future generations.

FNED 801. Ancestral Leadership Ways of Leadership. 3 Credits.
This course in education leadership provides an in-depth examination of Indigenous governance and leadership in the tribal world. Sovereignty is a foundational concept for this course and is presented both as a governmental principle and an individual value practiced in daily life. The course begins with a survey of the ancient and historical governing structures of Indigenous people and examines leadership in multiple forms including traditional highly structured systems like that of the Nations of the Haudenosaunee to less formalized structures like those of the Anishinaabeg band system. The course examines the impact of Euro-American colonization and assimilation on traditional forms of leadership, governance, and the erosion of tribal sovereignty. The contemporary crisis in tribal leadership today is linked to colonial domination and the subordination of traditional Indigenous structures and value systems. The study and practice of traditional leadership offers an opportunity to decolonize contemporary structures by applying and practicing the ancient values and practices of consensus, distributive leadership, conflict resolution, and inclusiveness. This course prepares students to assume balanced leadership roles within their families, communities, and Nations.
P: FNED 800 or concurrent enrollment.

FNED 804. Indigenous Pedagogy. 3 Credits.
This is course focuses on First Nations pedagogy as educational theory, method, and practice. Students will study and take part in Elder epistemology/ Elder learning theories. Students will study the origin and nature of Indigenous knowledge systems and the processes through which Indigenous knowledge is acquired and transmitted. The epic narratives of Indigenous groups will be examined as examples of Indigenous knowledge production, critical thinking, problem solving, and praxis. Students will read and discuss Paulo Freire's seminal work Pedagogy of the Oppressed in order to gain a deeper understanding of critical pedagogy and the challenges of western educational structures and outcomes. The course is designed to prepare students to address persistent educational challenges facing First Nations people today including the education achievement gap, truancy, retention and graduation rates, etc. The Four Rs framework as developed and articulated by Rosemary Ackley Christensen at UW Green Bay is presented as a teaching method and practice applicable in any K-16 classroom. Thus, students will take part in Indigenous educational methods that practice the Four Rs core values of the tribal world - respect, reciprocity, responsibility, and relationship.
P: FNED 800.

FNED 805. Generational Healing. 3 Credits.
This is a course in health and wellness in Indigenous education. With Euro-American colonization, Indigenous people experienced trauma resulting from culmination of: disease, warfare, land loss, removals and relocations, deprivation (starvation, poverty, sexual violence, etc.), economic dependency, breakdown of ancient family structures and communities; imposition of western religion, language, healing methods, social systems, government, diet/foods; and the disconnection from the Earth and other living beings. The impact is experienced today among First Nations people, families, and communities as evidenced in social problems that were virtually non-existent in traditional times. This course explores unresolved historical grief syndrome, post-apocalyptic stress syndrome among First Nations people, and the recent scientific research on the impact of trauma on child development and learning. Students will examine the impact of trauma as those who have both experienced trauma and as agents. The course explores generational healing through the pairing of Indigenous and non-Indigenous approaches to holistic wellness.
P: Successful completion of the following courses: FNED 800, 804, 820.

FNED 807. Indigenous Inquiry. 3 Credits.
This is a course in Indigenous research methods. The course examines the distinct concepts, thought patterns, theories, research methods, and standards of Indigenous research. Students will explore Indigenous research paradigms as grounded in knowledge that is interconnected to all living beings. Thus, the course begins with an exploration or the original forms of understanding and ways of knowing of First Nations people and an in-depth study of the origin beliefs of varied Indigenous groups. Embedded within the examination of origin beliefs is a discussion of the varied forms of original instructions given to humans regarding their purpose and place in the universe. The course is concerned with the development of Indigenous research paradigms and prepares students to apply them in academic and other professional settings. Within this approach, inquiry is examined beyond the realm of the intellect and is viewed as holistic – one that unifies, mind, matter, spirit, and emotion. The course bridges oral traditional knowledge, Elder epistemology, with practical research methods and skills. Students will collectively envision and contribute to the growing academic knowledge base defining and shaping Indigenous research paradigms. The course prepares practitioners to conduct research with integrity and humility.
P: Admittance into the First Nations Education Ed.D. program; FNED 800 and FNED 804.

FNED 810. Philosophical and Theoretical Foundations of Leadership in Education. 3 Credits.
This is a shared, online required course in the UW System Ed.D. cooperative. This interdisciplinary course provides a foundation for the development of personal and professional leadership grounded in theory and reflective of the influence of social locations and identities. Through exposure to recognized education leaders, students will postulate the leadership principles that resonate in their fields of work and study. Students will engage in an interdisciplinary analyses of leadership theories and philosophies, and will examine ethical and professional responsibilities within their profession and communities.
P: Acceptance into the Ed.D. program.

FNED 820. Critical Analysis of Systemic Inequity: Social Justice Education. 3 Credits.
This course is an advanced and in-depth exploration of the issues of power and inequality in U.S. history including but not limited to racism, classism, sexism, homophobia, and linguicism. The historical survey of inequity becomes a foundation for addressing current issues from a variety of perspectives and possibilities. Key course concepts for social justice in education include cultural deficit frameworks, meritocracy, whiteness as social construct, color blindness and race neutrality, microaggressions, and the politics of epistemology. Students will examine historic and contemporary examples of educational institutions as mechanisms of social, political, and economic control. Examples will include U.S. American Indian boarding schools, school segregation, tracking, and vocational education. Students will engage in critical research, analysis, writing and development of programs in their field that strive to end oppressive practices and balance systemic inequities.
Acceptance into EdD program.

FNED 825. Relational Assessment. 2 Credits.
This course on education assessment draws upon Indigenous perspectives and prepares students to create their own assessment models based on an Indigenous paradigm. Educational assessment occurs in many forms. Educators and administrators must determine how they will use assessment as a tool for growth and change. Within any educational context key stakeholders must assess programs, departments, and student learning. The first step for each educator is to assess the educational context that they operate within. For Indigenous peoples, assessment may be bound by specific world views, historic contexts, and socio-economic conditions. The goals of any assessment can be created within the circle of a group of stakeholders who seek achieve specific outcomes. For this course, students will develop models to assess their specific educational context both individually and as part of a team. This course is organized around the examination of four foundational questions: • What is the educational context of your work? • How does your work impact Indigenous education? • What is Indigenous assessment? • How will you assess your learning community using an Indigenous paradigm?
P: FNED 800
Fall Only.

FNED 826. Grant Writing. 1 Credit.
This is a hands-on course in grant writing. Developing effective grant writing skills are essential to acquire competitive funding for governmental agencies and private foundations. Writing a successful grant proposal is a blend of art and science. It requires basic knowhow, content knowledge, writing proficiency, strong research skills, creativity, and organizational ability, and networking ability. One of the first lessons that will be learned is successful grants emerge from working effectively with others to draw out ideas, capture those ideas to create a program or a plan for research, show how the plan is what is needed to respond to the “Request for Proposals,” and package those ideas so that they make sense to the reviewers of the proposal. Grant writing is increasingly a team activity. Whether or not you obtain the funding is sometimes less important than the networking that you do as a part of developing a grant proposal. We will also explore the nuances of gathering and documenting data in First Nations communities, the importance of developing culturally competent evaluations, and the need for community input during the grant writing process. This course also provides students with the background necessary to develop a competitive funding proposal.
P: FNED 800.

FNED 830. First Nations Law and Policy. 3 Credits.
This course provides an in-depth study of First Nations law and federal Indian policy. The course begins with an examination of international laws of the contact era beginning with the Doctrine of Discovery and Right of Conquest. Treaty-making between the European and American government and First Nations people is examined to provide a foundation for understanding the current federal trust responsibility between tribes and the federal government. Federal Indian case law and congressional acts from the Marshall Trilogy through current rulings are examined in-depth with an emphasis on the impact of these laws and policies on First Nations people and communities. The course will also examine key policies in the history of Indian education, including: mission schools; tribally controlled schools; federal boarding schools; New Deal era reforms; public education; and self-determination.
P: FNED 800.

FNED 831. Qualitative Research Methods. 2 Credits.
This course explores a number of traditions of qualitative inquiry from both Indigenous and Western perspectives. The course begins with an overview of several methods of Western qualitative inquiry, with an emphasis on interpretive research methodologies, including interpretive phenomenology, (participatory) action research, and grounded theory. Interpretative methodologies are particularly suited to examining Indigenous ways of knowing given their reliance on narrative data and goal of interpreting the meaning-making of participants. Next, it introduces the growing body of Indigenous methods of qualitative inquiry and contrasts the two approaches. The course culminates with a research proposal where students identify a research question and select the approach most applicable to its examination while exploring potential areas for cultural bias and/or misunderstanding.
P: FNED 800.

FNED 832. Program Evaluation. 2 Credits.
Knowing how to work with evaluative data is essential to management of public-serving programs – to improve effectiveness, accountability, and even secure grants. This course enables students to develop a working understanding of and some key skills to conduct program evaluations and measure outcomes. Through readings, guided activities/tutorials/internet searches, and class discussions, students will learn the language and tools of the trade, including community assessment, needs assessment, process/formative evaluation, LEAN, outcome measurement, efficiency analysis, and impact evaluation. Students will learn how to identify program outcomes and set up logic models, essential skills for grant-seeking. We will discuss the political, social, and ethical considerations of conducting research in real-world settings. Cases and examples will be discussed and worked through including actual indigenous program evaluations. A highlight of the class is the opportunity for students to set up an actual comprehensive evaluation plan for an agency of their own choosing, obtain feedback, and refine the plan in preparation for actual implementation of their own evaluation.
REC: FNED 800.

FNED 834. Statistics Lab. 2 Credits.
This course will introduce students to statistical techniques with the intent that they will apply them to projects and classes in the Ed. D. in First Nations Education, in the careers they pursue, and in the larger communities. This class builds a bridge between indigenous perspectives and quantitative methodologies to assist students in becoming competent in understanding and interpreting statistical results presented in computer output, scholarly journals, grant applications, and authentic settings where data are presented. This course offers an approach to understanding statistics that reflects Indigenous worldviews with an emphasis on interconnection, statistics as present in the natural world, and storytelling and the oral tradition as a central element of statistical problem solving and the quantitative approach.
P: FNED 800, FNED 804, and FNED 807.

FNED 880. Special Topics in Indigenous Education. 3 Credits.
This is a variable content, doctoral level course in First Nations Education. Course is repeatable with change of topic.
P: FNED 800. REC: FNED 804.

FNED 898. Dissertation Project Seminar: Relational Knowledge and Praxis. 3-9 Credits.
Students enroll in dissertation seminar in year three. Students take 3 credits each term in fall, spring, and summer. This course meets face to face and with embedded field work. In the first term of the course, students prepare for and complete their individual written comprehensive exams and the all-cohort oral exam. Throughout the remainder of the course, in terms two and three, students build collaborative partnerships with communities and tribal partners to define an issue or problem. Students will examine the research literature and apply the findings of the literature to the issue. Students will design a project proposal addressing the issue. Students will prepare their dissertation project for UWGB IRB review and IRB review in the individual tribal communities, as appropriate. Each dissertation project must incorporate intergenerational learning. In other words, just as Ed.D. students have learned from oral traditional scholars throughout their coursework, they must, in turn, design a dissertation project that incorporates younger learners. Student can create an individual dissertation project. In addition, we will consider projects designed using the Ed.D. consultancy model and thematic groups model, whereby, students work to understand and address a problem in teams. At the end of year three and the completion of 9 dissertation seminar credits, students must successfully defend a written dissertation project proposal.
P: Successful completion of the following: FNED 800, 801, 804, 805, 807, 810, 820, 825, 826, 830, 831, 832, 834.

FNED 899. Dissertation Project. 3-6 Credits.
Students will continue working in the field, collaborating on a dissertation project that integrates and reflects individuals, families, organizations, communities, and Nations. Students working on the dissertation project will work independently as well as meet consistently with a dissertation advisor and in small groups with other dissertators. Students will complete the dissertation project. Students will prepare to defend the dissertation project outcomes.
P: Successful completion of FNED 898.

Geoscience (GEOSCI)

Courses

GEOSCI 632. Hydrogeology. 3 Credits.
Introduction to the geological and physical principles governing ground water flow. Description of aquifer properties, chemical processes, equation of flow, well hydraulics, and environmental concerns.
P: gr st.
Spring.

GEOSCI 670. Glacial Geology & Landscapes. 3 Credits.
This course explores the extremes in environmental behavior which characterize the last 2.6 million years of Earth's history during the Pleistocene and Holocene Epochs. The course will provide students with the skills necessary to be able to recognize and describe glacial landforms, the materials of which they are composed, and the geologic processes by which they form.
P: GEOSCI 202. REC: GEOSCI 203.
Fall Even.

Graduate (GRADUATE)

Courses

GRADUATE 693. Thesis or Final Project Completion. 0 Credits.
Thesis or Final Project Completion for graduate programs.

Health & Wellness Management (HWM)

Courses

HWM 700. Contemporary Health and Wellness Perspectives. 3 Credits.
In this course, students will examine health and wellness concepts and probe foundational thinking associated with the contemporary health and wellness field. Expectations and development of the wellness professional will be explored.
Fall and Spring.

HWM 705. Strategic Management for Wellness Managers. 3 Credits.
This course introduces students to management concepts to create strategic direction and the role of leadership in setting strategy capable of meeting competitive challenges within the wellness industry. Topics include key management theories; role of stakeholders; issue identification; program evaluation; and business plan development.
Fall and Spring.

HWM 710. Research Methods for Wellness Programs. 3 Credits.
This course covers research methods and designs relevant to wellness program managers. Students will be introduced to various research designs including experimental and nonexperimental, as well as qualitative and quantitative methods. The course will focus on providing a practical understanding of several statistical tools used in wellness-related research.
Fall and Spring.

HWM 715. Persuasion Skills for Wellness Managers. 3 Credits.
In this course, students will develop communication and persuasion skills, which are essential for wellness managers. Utilizing a variety of media and techniques, students will hone their communication skills. Students will apply key marketing concepts to mount effective marketing campaigns for their organization.
Fall and Spring.

HWM 720. Exercise and Nutrition in Health and Disease. 3 Credits.
This course introduces students to the roles that physical activity and nutritional practices play in the prevention, management, and treatment of chronic diseases and conditions such as obesity, cardiovascular disease, cancer, diabetes, COPD, arthritis, depression and anxiety.
Fall and Spring.

HWM 730. Biopsychosocial Aspects of Health. 3 Credits.
This course is a survey of biological, psychological and social-environmental aspects of wellness. Taking an applied focus, students will learn current theoretical and evidenced-based approaches in psychology, integrative medicine, and behavioral economics that impact wellness.
Fall and Spring.

HWM 740. Health Systems and Policy for Wellness Managers. 3 Credits.
This course provides information pertaining to the US Health Care System with special emphasis on health and wellness. It provides an overview of the major public and private stakeholders including public health, insurance, and health care providers. Participants will examine how health policy impacts the design and financing of wellness programs.
Fall and Spring.

HWM 750. Planning and Evaluation for Wellness Managers. 3 Credits.
The purpose of this course is to examine planning and evaluation as inter-related, cyclical activities. Students will examine major activities and processes involved in planning and evaluating wellness programs.
P: HWM 705, HWM 710
Fall and Spring.

HWM 760. Wellness Law. 3 Credits.
This course introduces students to the legal and ethical environment of wellness management. Topics include the Affordable Care Act, Americans with Disabilities Act and HIPAA. Students will learn effective negotiation skills that can be used when dealing with contracts and vendors.
Fall and Spring.

HWM 770. Behavior and Development in Organizations. 3 Credits.
In this course, students will study organizations, their members and why people and groups behave as they do. Processes and methods that improve behavior, effectiveness, and efficiency in organizational settings will be examined. The course will also cover various methods for assessing organizational behavior and change.
Fall and Spring.

HWM 780. Best Practices and Emerging Issues in Wellness. 3 Credits.
In this course, students will study emerging trends, innovations, and best practices in the health and wellness industry with emphasis on preventative health care. Students will investigate major health challenges, programs, and policies to determine the influence of social, economic, multicultural, and global pressures on successful wellness practices.
P: HWM 700, HWM 705, HWM 710, HWM 720, HWM 730
Fall and Spring.

HWM 790. Health and Wellness Management Capstone Course. 3 Credits.
This course provides a cohesive experience designed to synthesize and apply information from the MS HWM curricula. Students complete an individual capstone experience (internship/special project) that demonstrates thorough understanding of the knowledge, skills and disposition necessary to be a successful health and wellness manager.
P: HWM 780
Fall and Spring.

Human Biology (HUM BIOL)

Courses

HUM BIOL 602. Human Physiology. 3 Credits.
Physiological functions of major human organs other than central nervous system: cell physiology, enzymes, cell energetics; muscle function; autonomic nervous system; endocrine system; blood, oxygen and circulatory system; immune system; kidney, digestion; and the role of physiology in diseases and medicine.
P: gr st.
Fall and Spring.

Humanistic Studies (HUM STUD)

Courses

HUM STUD 518. Topics in Linguistics/TESL. 3 Credits.
Analysis and discussion of topics of central importance in applied linguistics and Teaching English as a Second Language (TESL). Possible topics include:Teaching Grammer to ELLs; Second Language Pragmatics; Second Language Writing; and others.
P: gr st.

HUM STUD 519. Second Language Acquisition. 3 Credits.
Overview of issues in second-language acquisition, including linguistic, cognitive, social, and affective factors. Students will examine and think about learner language, read research on learner language, and consider implications for second-language teaching.
P: gr st.
Spring.

HUM STUD 520. Second Language Assessment. 3 Credits.
An exploration of policies, procedures, and instruments in assessing English language proficiency. Focus will be on practical assessment strategies and their incorporation into instructional planning.
P: gr st.
Spring Odd.

HUM STUD 521. Language and Society. 3 Credits.
The study of language in relation to society, including social and regional dialects, bilingualism and language contact, speech communities, the ethnography of language, and applications such as language policy and planning.
P: gr st.
Fall Only.

Management (MGMT)

Master of Business Administration (MBA)

Courses

MBA 701. Purpose Driven Leadership. 3 Credits.
This course will explore the leadership imperatives and competencies that are necessary to act on business challenges and drive both personal and organizational success in a competitive business environment. On a personal level, it is important to create a leadership model to guide how you influence others, manage change, resolve conflict, make decisions, communicate with impact, and build partnerships to drive impact. On an organizational level, forward-thinking leaders must understand how to integrate operational initiatives into broader strategic plans while still maintaining operational excellence, ensuring talent readiness, and building inter-group alignment among other things.

MBA 702. Critical Thinking Beyond Business As Usual. 3 Credits.
This course emphasizes that business does not happen in a vacuum and will move your critical thinking focus from a discipline-specific way of thinking to a more integrated exploration of how disciplines work together and impact one another. The course examines a variety of perspectives, such as the humanities and social sciences, to gain a more holistic understanding of the environment in which business operates, uncover surprising interrelationships and movements outside the traditional business perspective, and focus on a deeper level of discourse needed to be effective in a rapidly changing world.

MBA 703. The Learning Organization. 3 Credits.
This course explores various perspectives on how participants can build learning organizations. The course begins with Senge's 5th Discipline, which states that learning organizations depend upon the mastery of five dimensions: systems thinking, personal mastery, mental models, building a shared vision, and team learning. Next, the class will explore a model of a learning organization which includes a learning environment, learning processes, and leadership support of learning along with an organizational assessment tool. Finally, the class will discover how the iterative processes involved in the systematic approach to problem-solving of design thinking fosters learning and innovation within organizations.

MBA 704. The Exponential Enterprise & Abundance. 3 Credits.
This course provides a perspective on the dynamic nature of global supply chains, developing a sustainable supply chain management strategy, and aligning it with the organizational strategy. The topics will include but are not limited to globalization, advantages and risks of globalization, emerging technologies in manufacturing such as 3D printing and how it may affect supply chains, long-term sourcing decisions based on environmental and societal impacts, flexibility in sourcing/manufacturing/fulfillment and resilience in case of a breakdown, as well as the relevance of concepts such as Lean, Six-sigma and JIT.

MBA 705. Evidence-Based Decision Making. 3 Credits.
This course explores organizational decision-making based on evidence-based management. Today, many organizations fail to capitalize on existing knowledge available in management research or even in their organization’s own wealth of data. This course examines the practice of, barriers to, and strategies for engaging in evidence-based management to enhance leadership impact. The goal of the course is to equip business leaders with the capability to be critical and analytical thinkers who can challenge established beliefs and utilize best available evidence to make effective decisions in an increasingly complex business environment.

MBA 706. Creating Brand Value. 3 Credits.
This course helps students understand the strategies about building, managing, and protecting brands. Specific areas covered include brand equity, brand value, forming customer relationships around a brand, as well as creating and sustaining brand loyalty. Social media's influence has extended to many spheres of life and today's younger generations are more skeptical of marketing and not as brand loyal as were the previous generations. The course explores how to develop better consumer-brand relationships that can create a clear competitive advantage as branding is becoming more participatory and experiential between customers and organizations.

MBA 707. Leading Transformational Change. 3 Credits.
This course focuses on initiating and sustaining positive organizational change considering the importance of both people and process. Emphasis will be placed on learning how to identify and drive organizational changes needed to adapt strategically to changing technology, market, and internal demands. Considering the distinction between incremental versus transformational change, the course will highlight how to catalyze new approaches to improve results by transforming organizational culture, processes, and systems. Finally, the course will explore how to be an effective change leader by proactively recognizing and empathizing with individuals' resistance, making a compelling case for change, and involving others to gain buy-in.

MBA 708. Disruptive Innovation. 3 Credits.
This course will creatively approach the subjects of ideas instigation, business opportunity need identification, and the development of suitable business models within the knowledge-driven, digital, global economy. The course will use numerous discovery, creativity, ideation, problem-solving tools and frameworks, and concentrate on turning them into a viable business solution. It will delve into best practices and strategies of companies that have successfully engaged in disruptive innovation. Further, we will identify internal and external barriers and ways to overcome them stimulating the comparison and integration of different cultural and professional perspectives.

MBA 709. Artificial Intelligence & Technological Advances. 3 Credits.
This course emphasizes the understanding of how artificial intelligence (AI) and technological advances could be used to shape and implement strategic and operational changes at various levels within an organization. The course focuses on how AI and technological advances: (a) are transforming businesses and how they could be used to develop competitive business advantage; (b) could be used in shaping and executing the organization's strategy; (c) could be leveraged to foster a culture of data-driven experimentation and decision making; and (d) must include an understanding of the ethical issues around the use of AI – and the importance of keeping algorithms transparent, fair, and unbiased.

MBA 710. The Path to Sustainability. 3 Credits.
This course provides an overarching understanding of sustainability, the relationship between business decisions and sustainability, and the reasons why each business decision must be evaluated in term of economic, environmental, and social performances. The course also demonstrates that business leaders must evaluate each business decision with a consideration of long-term sustainability. The course also explores the need for transforming organizational culture so that sustainability is prioritized as a way of life and it allows for the continual integration of lifecycle assessment, which includes sustainability of products from design through disposal.

MBA 711. Culture as a Competitive Advantage. 3 Credits.
This course focuses on understanding the value of the statement "culture eats strategy for breakfast" and then creating initiatives to ensure culture and talent drive ongoing performance and become a source of competitive advantage. The focus is on preparing business professionals to build a strong culture and maximize their people's skills sets to get the most out of them in an ever-changing business environment. The course emphasizes how to implement state of the art talent management tools to build the culture needed to take organizations to new levels.

MBA 712. Alternative Futures & Strategic Foresight. 3 Credits.
This course focuses on new breakthroughs, changing technologies, and cutting-edge innovations that could impact business. Learners will apply strategic foresight and enable their organizations to reframe preferences and expectations for the future. By working as strategic managers, learners will usher in changes in firm strategies, tactics, goals, plans, recruitment efforts, and management styles. This course will introduce topics and enable deeper thinking into the applicability of artificial intelligence, future of biotechnology, the singularity, strategic design and design futures, and emerging issue analysis among other under-researched, highly critical future trends.

Mathematics (MATH)

Courses

MATH 529. Applied Regression Analysis. 4 Credits.
Techniques for fitting linear regression models are developed and applied to data. Topics include simple linear regression, multiple regression, curvilinear regression, and linearizable models.
P: Graduate status. REC: Introductory Statistics, Calculus I, and Linear Algebra. Knowledge of Excel and R.
Fall Only.

MATH 555. Applied Mathematical Optimization. 3 Credits.
Analytical and numerical optimization techniques; linear, nonlinear, integer, and dynamic programming. Techniques applied to problems of water, forest, air and solid-waste management.
P: gr st.
Fall Even.

MATH 630. Design of Experiments. 4 Credits.
Statistical theory and practice underlying the design of scientific experiments, and methods of analysis. Replication, randomization, error, linear models, least squares, crossed and nested models, blocking, factorial experiments, Latin squares, confounding, incomplete blocks, split-plots.
P: Graduate student status, Introductory Statistics course completion
Spring.

MATH 631. Multivariate Statistical Analysis. 4 Credits.
Principles and practice in the analysis of multivariate data. Correlation, partial correlation, principle components, factor analysis, discriminant functions, canonical correlation, cluster analysis, multidimensional scaling. Emphasis on computer analysis of actual data.
P: Graduate status and completion of an Introductory Statistics course. REC: Calculus I, Linear Algebra, and Regression Analysis.
Spring Odd.

MATH 698. Independent Study. 1-3 Credits.
P: gr st.

MATH 728. Abstract Algebra I - Noncommutative Algebra. 3 Credits.
Major topics of the course are groups and rings without commutativity assumption. Topics in detail include: homomorphisms and group actions, the Sylow Theorem, Solvable and Nilpotent groups, module theory, primitive and Artinian rings, Offered online format only.
P: Abstract algebra course at senior level or consent of instructor.

Nursing (NURSING)

Courses

NURSING 699. Travel Course. 1-6 Credits.

NURSING 734. Evaluation and Evidence-Based Practice. 3 Credits.
This course will focus on skills needed for nurses to evaluate outcomes. Topics include using statistics and information systems in evaluation and research, continuous quality improvement, evidence-based practice, safety and quality indicators, performance improvement methods, and team-based problem solving.
P: Must be admitted to MSN program or BSN-MSN Leadership Option program
Fall Odd.

NURSING 737. Leadership in Complex Systems. 3 Credits.
This course will focus on the development of leadership for nurses in complex organizations. Topics will include transformation of complex organizations, conflict, crisis management, leading innovation, creating a culture of safety, and serving as a mentor and coach.
P: Must be admitted to MSN program or BSN-MSN Leadership Option program
Spring Even.

NURSING 741. Theories of Organizational Behavior and Nursing Leadership. 3 Credits.
This course will address concepts and theories important to nursing leadership and management. Organizational behavior, leadership theories, and complexity science will be emphasized.
P: Must be admitted to MSN program
Fall Odd.

NURSING 745. Health Economics and Policy. 3 Credits.
This course will explore the complex healthcare in the United States including economic, political, financial, ethical, and social factors affecting health policy. Emphasis will be given to how healthcare is financed. Legislative and regulatory processes affecting nursing and healthcare will be addressed.
P: Must be admitted to MSN program
Spring Even.

NURSING 750. Human Resource Management. 3 Credits.
This course is designed to introduce the field of human resource management practices and policies which create and maintain a healthy professional work environment. Staffing models, hiring, retention and supervision practices, performance enhancement planning, strategic scheduling, and labor relations/laws will be covered.
P: Must be admitted to MSN program.

NURSING 755. Program Planning for Population Health. 2 Credits.
This course will focus on the role of the nurse leader in program planning for health promotion and disease prevention for populations. Topics will include determinants of health, epidemiology, biostatistics, and advancing equity in access, services, and outcomes for vulnerable populations.
P: Must be admitted to MSN program.

NURSING 760. Informatics for Nursing Leaders. 3 Credits.
This course will enhance students' knowledge and skills related to nursing informatics in a variety of healthcare settings. Students will learn how to use project management principles and technologies to enhance patient-care delivery, management, and clinical decision support. Research from nursing and other disciplines regarding improving patient outcomes, cost effectiveness and patient safety will be emphasized.
P: Must be admitted to MSN program or enrolled in BSN-MSN Leadership Option program
Spring Odd.

NURSING 770. Practicum I: Leadership and Management Practices - Quality and Safety. 2 Credits.
In this course, students will apply best practices related to evidence-based quality and safety decisions in a practicum site. Local and national drivers of safety and quality initiatives, along with oversight of these programs, will be explored. Benchmarking and statistical process control methods will be emphasized to ensure appropriate leadership decisions. Required MSN practicum hours will be satisfactorily completed.
P: Nursing 734, Nursing 737, Nursing 741, Nursing 745, Nursing 750, Nursing 755, pre- or co-requisite Nursing 780, and co-requisite Nursing 790
Fall Even.

NURSING 772. Practicum II: Leadership and Management Practices - Change, Culture and Communication. 2 Credits.
This course will provide a structured experience for exploration of nursing leadership and management roles in a practicum site. Emphasis will be placed on change management, the use of information systems, financial reimbursement models, exploration of organizational culture and development of professional communication skills. Required MSN practicum hours will be satisfactorily completed.
P: Nursing 770, Nursing 780, pre- or co-requisite Nursing 760, and co-requisite Nursing 790
Spring Odd.

NURSING 774. Practicum III: Transition to Leadership and Management Roles. 2 Credits.
This course will explore aspects of role transition to nursing leadership and management. Discussions and debate will be used to highlight role transitions and resilience strategies. Remaining required MSN practicum hours will be satisfactorily completed.
P: Nursing 760, Nursing 770, Nursing 772, pre- or co-requisite Nursing 785, and co-requisite Nursing 790.

NURSING 780. Financial Management for Nurses. 3 Credits.
This course will develop knowledge and skills used by nurse managers for effective financial management in healthcare. Topics will include reimbursement systems, coding and payment mechanisms, ethics and legalities of contracting, governmental regulations, budget development, and marketing and inter-professional collaboration.
P: Must be admitted to MSN program
Fall Even.

NURSING 785. Environmental Sustainability for Nurse Leaders. 2 Credits.
This course will explore sustainability in healthcare environments. Implications of environmental health policy will be analyzed. Emphasis will be placed on decisions and strategies nurse leaders make that impact sustainability of healthcare environments.
P: Must be admitted to MSN program.

NURSING 790. MSN Leadership Project. 1 Credit.
This course will provide students the opportunity to design, implement, evaluate and professionally disseminate an evidence-based leadership project within a healthcare environment. This course must be taken three times, over three semesters in the final year, in conjunction with the three practicum courses. Required MSN practicum hours related to the project (90 total: 30 hours in each of the three consecutive semesters) will be satisfactorily completed.
P: concurrent enrollment or completion of Nursing 770, Nursing 772 or Nursing 774.

NURSING 798. Independent Study. 1-2 Credits.
Allows MSN student to master content absent in graduate courses transferred from other institutions.
P: Student must be accepted to the MSN program.

Physics (PHYSICS)

Courses

PHYSICS 615. Solar and Alternate Energy Systems. 3 Credits.
Study of alternate energy systems which may be the important energy sources in the future, such as solar, wind, biomass, fusion, ocean thermal, fuel cells and magneto hydrodynamics.
P: gr st.
Spring Even.

PHYSICS 617. Nuclear Physics and Radiochemistry. 3 Credits.
Properties and reactions of atomic nuclei; application of the properties of radioactive nuclei to the solution of chemical, physical, biological and environmental problems.
P: gr st.
Spring Even.

Political Science (POL SCI)

Courses

POL SCI 505. Urban Politics and Policy. 3 Credits.
Structures and operations of city governments and their responses to policy issues such as education, employment, social welfare, housing, transportation, migration, racial discrimination, urban sprawl and social inequality.
P: gr st.
Spring.

POL SCI 506. Regulatory Policy and Administration. 3 Credits.
The origins, purposes and operation of regulatory agencies and the programs in the U.S.: theories of regulation, issues and controversies in regulatory policy, and decision-making in such areas as economic regulation, public health, consumer protection workplace safety and environmental quality.
P: gr st.
Spring.

POL SCI 514. Administrative Law. 3 Credits.
Administrative law in the American federal (intergovernmental) system: connections between administrative law issues and issues of public policy; and legal dimensions of administrative problems.
P: gr st.
Fall Only.

POL SCI 516. Congress: Politics and Policy. 3 Credits.
Legislative institutions and policies, emphasizing the U.S. Congress. The role of legislature in American politics; elections, representation, formal and informal legislative institutions and practices, leadership, interest groups and lobbying, and the role of legislatures in policy innovation. P: gr st. (S)
P: gr st.
Spring.

POL SCI 608. Public Policy Analysis. 3 Credits.
An introduction to public policy analysis and to the policy-making process, primarily in American government. The course emphasizes the political aspects of policy analysis, models and methods for rational design of public policies, and applications of policy studies to particular public problems.
P: gr st.
Fall Only.

POL SCI 610. Intergovernmental Relations. 3 Credits.
The relations among the federal, state and local units of government; federalism, intergovernmental revenues and expenditures, intergovernmental policies and grants in-aid. P: gr st. (F)
P: gr st.
Fall Only.

Psychology (PSYCH)

Courses

PSYCH 544. Dying, Death, and Loss. 3 Credits.
Death, dying, and loss from a multidisciplinary diversity perspective; the development of death concepts across the life span, end of life issues, and cross-cultural death practices and their relation to the American death system.
P: graduate status
Spring.

PSYCH 615. Organizational and Personnel Psychology. 3 Credits.
Examines the human side of organizations from a scientific framework. Topics include job analysis, performance appraisal, employee selection, training, motivation, job satisfaction, work teams, leadership, and organization development.
P: gr st.
Fall Only.

PSYCH 620. Test and Measurements. 3 Credits.
An overview of the uses and underlying psychometric concepts of psychological tests. Examines selected tests in the areas of intelligence, personality, achievement, and interest assessment. Discusses controversial social, legal, ethical, and cultural issues related to testing.
P: gr st.
Fall and Spring.

PSYCH 629. Theories of Personality. 3 Credits.
P: gr st.

Public & Environmental Affairs (PU EN AF)

Courses

PU EN AF 506. Regulatory Policy and Administration. 3 Credits.
The origins, purposes and operation of regulatory agencies and the programs in the U.S.: theories of regulation, issues and controversies in regulatory policy, and decision-making in such areas as economic regulation, public health, consumer protection workplace safety and environmental quality.
P: gr st.
Spring.

PU EN AF 514. Administrative Law. 3 Credits.
Administrative law in the American federal (intergovernmental) system: connections between administrative law issues and issues of public policy; and legal dimensions of administrative problems.
P: gr st.
Fall Only.

PU EN AF 522. Environmental Planning. 3 Credits.
History, processes, and impacts of environmental planning in the United States. Action forcing legislation and its effect on environmental issues and processes. Emphasizes environmental planning and implementation at the national, state, and local levels.
P: gr st.
Fall and Spring.

PU EN AF 535. Principles and Practices of Emergency Management. 3 Credits.
The philosophy of comprehensive Emergency Management will be discussed with the four attendent steps, which include mitigation, preparedness, response and recover. In addition, legal issues involving state and Federal law effecting emergency operations will be studied.
REC: Pu En Af 315.

PU EN AF 536. Strategic Emergency Preparedness, Planning and Implementation. 3 Credits.
Strategic planning and budgeting is a very important component in emergency planning and mitigation. Learn how to acquire and allocate resources, plan for crises with or without warning, and implement preparedness programs.

PU EN AF 537. Disaster Response Operations and Management. 3 Credits.
Examine the roles and responsibilities of the players in a crisis event. Explore the various problems associated with response operations such as: inadequate preparedness measurers, safety and site security, politics, and record keeping.

PU EN AF 538. Disaster Recovery. 3 Credits.
Examine disaster recovery in isolation. Explore the short and long term effects of disasters, as well as, the process of putting families, businesses and communities back together. You will learn the importance of reconstruction and relocation.

PU EN AF 551. Water Resources Policy and Management. 3 Credits.
The world faces unprecedented challenges as vital water is used and abused, mismanaged and wasted. This course is a comprehensive analysis of the current state of water issues and future implications, introducing basics of water management and planning. Topics covered are: basic hydrological cycle, human impacts on the hydrologic cycle, water pollution, flood and drought, mining of aquifers, water conflicts, state water laws, historical municipal and irrigation development, dams and pipelines, water and wastewater treatment (and related laws), effects of land use, effects of climate change, FOOD-ENERGY-WATER nexus, economics of water, and contemporary strategies to improve water use and quality. Focus is mostly national, with many local and global examples.
P: gr st.

PU EN AF 559. Political and Policy Dimensions of Emergency Management. 3 Credits.
This course considers the political and policy environment in which emergency management is practiced. It focuses on political processes and phenomena associated with mitigating the likely effects of extreme events, responding to them, and recovering from them. The course is intended to help emergency managers develop an understanding of local, state, federal, and intergovernmental politics affecting and affected by extreme events.

PU EN AF 578. Environmental Law. 3 Credits.
An overview of major environmental laws such as the Clean Air and Clean Water Acts, with emphasis on how these laws are implemented by the federal and state governments.
P: gr st.
Fall Only.

PU EN AF 579. Natural Resource Policy, Law, and Administration. 3 Credits.
This course examines public land and resources policy, law and administration from multiple perspectives. It covers environmental and administrative decision making and various contemporary resource management problems and conflicts. A number of substantive policy areas are examined including national forests, public rangelands, wildlife and biodiversity, and protected areas, among others. These substantive areas are approached and analyzed in a number of different ways.
P: gr st.

PU EN AF 580. Global Environmental Politics and Policy. 3 Credits.
This course explores the transnational and international context of environmental politics and policy. Particular focus areas include the causes of environmental harm, the meaning of sustainability, and the relevance of new environmental actors on the global stage.
P: gr st.
Spring.

PU EN AF 602. Environmental and Resource Economics. 3 Credits.
Applications of tools such as cost-benefit analysis and other economic concepts in current public decision making, with special emphasis upon common property resources management.
P: gr st.
Fall and Spring.

PU EN AF 608. Public Policy Analysis. 3 Credits.
An introduction to public policy analysis and to the policy-making process, primarily in American government. The course emphasizes the political aspects of policy analysis, models and methods for rational design of public policies, and applications of policy studies to particular public problems.
P: gr st.
Fall Only.

PU EN AF 615. Public and Nonprofit Budgeting. 3 Credits.
The purposes and attributes of major public budgetary systems: principles and methods in designing and managing relationships among program planning, policy planning and budgetary operation; applications of analytical and decision-assisting tools in public budgetary operations.
P: gr st.
Spring.

PU EN AF 628. Public and Nonprofit Program Evaluation. 3 Credits.
Develops a working understanding and selected skills relating to the conduct of program evaluations. Evaluation design, data collection, data analysis, and utilization of findings are discussed using the political and social context of "real" organizations.
P: graduate status
Spring.

PU EN AF 650. Advanced Geographic Information Systems. 3 Credits.
Project-based course using ARC/INFO software. Students adopt a study area, develop data layers, analyze these data and develop GIS maps showing results of the analysis.
P: gr st.
Spring.

PU EN AF 652. Planning Theory and Methods. 3 Credits.
Planning for public and not-for-profit agencies: theory and practical significance of planning; the political and administrative setting of planning operations; and methods of planning analysis such as strategic planning.
P: gr st.
Spring.

PU EN AF 653. Cost Benefit Analysis. 3 Credits.

Social Work (SOC WORK)

Courses

SOC WORK 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: cons of instr & prior trip arr & financial deposit.

SOC WORK 700. Gateway to the Profession of Social Work. 2 Credits.
This course introduces students to the multi-level facets of the social work profession with a focus on teamwork and collaboration. This course is taken in the first semester of the generalist curriculum and sets the framework upon which subsequent MSW course and learning experiences are built.
P: Admission to the MSW Program.
Fall Only.

SOC WORK 701. Contemporary Social Work Ethics. 3 Credits.
This generalist course is designed to introduce MSW students to a wide range of ethical issues that impact practitioners in various settings.
P: Admission to the MSW Program
Spring.

SOC WORK 702. Generalist Practice I. 3 Credits.
This course promotes MSW level development of skills necessary to practice social work with diverse client populations.
P: Admission to MSW Program
Fall Only.

SOC WORK 703. Direct Practice Skills. 1 Credit.
This generalist course is designed to introduce MSW students to a range of skills required for effective practice with individuals, families, and small groups.
P: Admission to the MSW Program
Fall Only.

SOC WORK 704. Generalist Practice II. 3 Credits.
This course promotes masters' level development of skills necessary to practice social work with diverse groups within organizations and communities.
P: Admission to the MSW Program
Spring.

SOC WORK 705. Macro Practice Skills. 1 Credit.
This skills lab focuses on social work practice in small groups with an emphasis on communication, advocacy, ethics, and issues of diversity as they affect group work.
P: Admission to the MSW Program
Spring.

SOC WORK 707. Human Behavior and the Social Environment. 2 Credits.
Integration of theories and models examining the complexity of person/environment functioning with respect to individuals, families, small groups, organizations, and communities.
P: Admission to the MSW Program
Spring.

SOC WORK 711. Foundations of Social Welfare. 3 Credits.
This course examines the origin and change of social welfare arrangements in the U.S. to meet human needs. It traces the evolution of the social work profession and social welfare efforts in relation to major economic, social, and political forces over time. Students are introduced to the processes of policy development and policy change and evaluate contemporary social policies affecting poor and disenfranchised groups in the U.S.
P: Admission to MSW Program
Fall Only.

SOC WORK 712. Field I. 4 Credits.
Supervised social work practicum experience in a human service agency setting.
P: Admission to MSW Program
Fall Only.

SOC WORK 713. Seminar I. 1 Credit.
This generalist seminar course focuses on the application and integration of social work knowledge, values and skills to supervised social work practice in human service settings. The course provides opportunities for immersion in professional social work practice issues and dialogue within a classroom seminar format. The field internship is completed concurrently with the course.
P: Admission to the MSW Program.
Fall Only.

SOC WORK 714. Field II. 4 Credits.
Supervised social work practicum experience in a human service agency setting.
P: Admission to MSW Program; SOC WORK 712
Spring.

SOC WORK 715. Seminar II. 1 Credit.
This generalist seminar course focuses on the application and integration of social work knowledge, values and skills to supervised social work practice in human service settings. The course provides opportunities for immersion in professional social work practice issues and dialogue within a classroom seminar format. The field internship is completed concurrently with the course.
P: Admission to the MSW Program
Spring.

SOC WORK 716. Field III. 4 Credits.
Supervised social work practicum experience in a human service agency setting.
P: Admission to MSW Program
Fall Only.

SOC WORK 717. Seminar III. 1 Credit.
This specialized seminar course focuses on the application and integration of advanced social work knowledge, values and skills to supervised social work practice in human service settings. This course provides opportunities for immersion in professional social work practice issues and dialogue within a classroom seminar format. The field internship is completed concurrently with the course.
P: Admission to MSW Program
Fall Only.

SOC WORK 718. Field IV. 4 Credits.
Supervised social work practicum experience in a human service agency setting.
P: SOC WORK 716
Spring.

SOC WORK 719. Capstone Seminar. 1 Credit.
This specialized seminar course focuses on the application and integration of advanced social work knowledge, values and skills to supervised social work practice in human service settings. This course provides opportunities for immersion in professional social work practice issues and dialogue within a classroom seminar format. The field internship is completed concurrently with the course.
P: Admission to MSW Program
Spring.

SOC WORK 720. Diversity, Social Justice & Advocacy. 3 Credits.
Social work specialized practice course on working with diverse groups and communities.
P: Admission to MSW Program.

SOC WORK 721. Advanced Practice: Multi-Level Family Systems. 3 Credits.
Advanced social work theory and practice techniques for working with individuals and families.
P: Admission to MSW Program
Spring.

SOC WORK 722. Social Work Management & Supervision in the Social Services. 3 Credits.
Advanced social work practice of management and supervision methods for students working in management positions at any level in social service agencies.
P: Admission to the MSW Program or consent of instructor.

SOC WORK 727. Psychopathology for Clinical Social Work. 3 Credits.
This course examines mental health and mental illness from a strengths-based social work perspective. Cultural and community factors in defining these issues are addressed. The course focuses on diagnosis and development of evidence-based client plans using the DSM-5 as a framework.
P: Admission to MSW Program or consent of instructor.

SOC WORK 728. Advanced Policy: Leadership, Advocacy and Practice. 3 Credits.
This course examines the role of social workers as leaders in advocacy efforts in policy practice and social institutions to address the needs of vulnerable and oppressed populations. Students apply an analytical framework from a social justice perspective when analyzing social welfare policy to examine particular practice concerns.
P: Admission to MSW Program.

SOC WORK 731. Research for MSW Practice. 3 Credits.
Advanced research course that prepares students to evaluate their own practice and to carry out independent research projects.
P: Admission to MSW Program
Fall Only.

SOC WORK 735. Emerging Issues in Child Welfare. 2 Credits.
Elective course examining contemporary child welfare policies and practices with emphasis upon child safety, permanency and well-being.
P: Admission to MSW Program or consent of instructor.

SOC WORK 736. Advanced Program Evaluation. 2 Credits.
This course focuses on evaluating social service delivery systems through the logic model and utilization-focused evaluation methods.
P: Admission to MSW Program
Spring.

SOC WORK 737. Crisis Intervention. 3 Credits.
This course contributes to development of practice competency with vulnerable and oppressed groups. The course teaches crisis intervention and emergency treatment approaches and then applies them to vulnerable populations of males and females in the United States.
P: Admission to MSW Program or consent of instructor.

SOC WORK 738. Advanced Practice: Community Empowerment. 2 Credits.
This course aims to prepare students for participation in the change process at the systems-level by building knowledge and skills in community organizing, program development, and fundraising.
P: Admission to MSW Program
Fall Only.

SOC WORK 747. Clinical Theories for Mental Health Practice. 2 Credits.
This course examines the current mental health theories influencing social work direct practice.
P: Admission to MSW Program or consent of instructor.

SOC WORK 749. Contemporary Interventions in Social Work Practice. 3 Credits.
This direct practice course provides an understanding and application of current and relevant intervention models used by social workers across a spectrum of client populations and focal issues
P: Admission to MSW Program or consent of instructor.

SOC WORK 751. Social Work Practice in Schools. 2 Credits.
This course provides students with the conceptual and practical foundation for practicing social work in a school setting.
P: Admission to MSW Program or consent of instructor.

SOC WORK 753. Strengths-Based Leadership and Supervision. 3 Credits.
This course contributes to the development of leadership skills for MSW students by focusing on a strengths-based approach to leadership and supervision.
P: Admission to MSW Program or consent of instructor.

SOC WORK 757. Social Work Practice in the Criminal Justice System. 3 Credits.
Prepares social workers for an understanding of correctional models and their inherent values, bio-psycho-social theories of crime causation, and assessment and intervention skills within a generalist framework.
P: Admission to MSW Program or consent of instructor.

SOC WORK 761. Overview of Wisconsin DPI School Social Work Standards. 2 Credits.
This on-line course introduces students to internal and external systems that impact K-12 education and educational settings. The following topics and Wisconsin Department of Public Instruction school social work standards will be covered in this course: educational policy, social and economic justice, at-risk populations, and diversity. This course is taken prior to SOC WORK 751 and 762.

SOC WORK 762. Wisconsin DPI School Social Work Standards Practicum. 3 Credits.
In this course, students will complete a practicum, consisting of a minimum of two days per week in a K-12 school, supervised by a certified school social worker. As part of this course, students will complete a Portfolio demonstrating mastery of the Department of Public Instruction (DPI) school social work standards. This course is taken in conjunction with SOC WORK 751.
Spring.

SOC WORK 767. Assessing Mental Health and Substance Use in Practice. 3 Credits.
The course will assist students to relate generalist practice social work theories to individuals with mental health and substance abuse challenges. The course will examine DSM-5 diagnosis, theoretical models and the implications of each approach relative to assessment and generalist practice settings. In addition, the course will integrate social justice and ethical frameworks in the assessment of mental health and substance abuse within generalist settings.
P: Admission to MSW Program or consent of instructor.

SOC WORK 777. Forensic Social Work: Policy and Practice. 3 Credits.
This course provides students with the understanding of the field of forensic social work practice which includes both criminal and civil issues. Students will learn to conduct forensic assessments, write court reports, act as expert and fact witnesses and facilitate guardianships. The course covers practice knowledge and skills in a variety of contexts including child welfare, juvenile justice, adult corrections, victim/witness services, health/long-term care, mental health, domestic abuse and disability services. Students apply knowledge to ethical dilemmas encountered in the legal system and learn to advocate on behalf of clients.
P: Admission to MSW Program or consent of instructor.

SOC WORK 795. Special Topics. 3 Credits.
This course provides students an opportunity to strengthen social work practice in work with clients and/or social service agencies on topics such as mental health, addictions, violence or other areas of concern in social work practice.
P: Admission to MSW Program or consent of instructor.

SOC WORK 798. Independent Study. 1-3 Credits.
P: graduate status
Fall and Spring.

Spanish (SPANISH)

Courses

SPANISH 555. Spanish and Latin American Cinema. 3 Credits.
Historical and critical introduction to the work of prominent Spanish and Latin American filmmakers and to thematic representations of Spanish and Latin American Cultures.
P: gr st.
Spring Even.

SPANISH 638. Major Spanish and Latin American Writer(s). 3 Credits.
Study of an outstanding figure in Spanish and Latin American literatures.
P: gr st.
Spring Odd.

Sustainable Management (SMGT)

Courses

SMGT 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: gr st.

SMGT 700. Cultural and Historical Foundations of Sustainability. 3 Credits.
The changing relationships of humans to the natural environment; changes in dominant scientific perspectives and the process of scientific debate. The quest for understanding, manipulating, and dominating the natural world. Cultural and organizational structures; the role and impact of technology; the systems approach to problem solving and its implications for the future.

SMGT 710. The Natural Environment. 3 Credits.
Natural cycles, climate, water, energy, biosystems, ecosystems, the role of humans in the biosphere; human impacts on natural systems. Use of case studies; some pre-reading, carbon cycle as a unifying theme. Disturbance pollution and toxicity; carrying capacity; natural capital.

SMGT 720. Applied Research and the Triple Bottom Line. 3 Credits.
Document and project internal and external costs resulting from the inseparability of the natural, social, and economic environments. Assess sustainability issues using basic modeling techniques; cause and effect, root cause analysis, regression analysis, and business scenario-based cases.

SMGT 730. Policy, Law and the Ethics of Sustainability. 3 Credits.
The Law and Ethics regarding sustainability of Economic development and emerging environmental challenges at national and international levels; Including NationalEnvironmental Policy Act (NEPA), United Nations Environmental Program (UNEP) Carbon Footprints, Kyoto protocol, and Brundtland Commission. The policy and role of government and its agencies such as Army Corps of Engineers; Department of Interior, etc., in building a more just, prosperous, and secure environmental common future.

SMGT 740. Economics of Sustainability. 3 Credits.
Understand the economy as a component of the ecosystem within which it resides, with natural capital added to the typical analysis of human, social, built, and financial capital. Explore traditional micro, macro, and international trade theory and policy and the implications of sustainability. Topics include: history of economic systems and thought; globalization and localization; distinguishing between growth and development; the nature and causes of market failure; consumption, consumerism, and human well-being; emerging markets; technological change; business organization and financial market alternatives; demographic change; and the global food economy.

SMGT 750. The Built Environment. 3 Credits.
The assessment of the intersection of the built environment and human needs: water, air, food, waste, transportation, healthcare and education. Focus on evaluation and analysis of energy technology systems and building efficiency in the context of facilities management.

SMGT 760. Geopolitical Systems: Decision Making for Sustainability on the Local, State and National Level. 3 Credits.
An examination of decision making and public policy for sustainability at the national, state, and local level, with emphasis on the social, economic, and political factors affecting decisions within the public, nonprofit, and private sectors.

SMGT 770. Leading Sustainable Organizations. 3 Credits.
A macro-level perspective on leading sustainable organizations. Topics addressed include organizational change and transformation processes, strategic and creative thinking, organizational structures and their impacts, conflict management and negotiation, stakeholder management, and situational leadership styles and behaviors. Focuses on how organizational leaders develop and enable sustainable organizations, especially in times of environmental change.

SMGT 780. Corporate Social Responsibility. 3 Credits.
Corporate social responsibility and an organization. Evaluation of risks and potential impacts in decision making recognizing the links between the success of an organization and the well-being of a community. Integrating corporate social responsibility throughout an organization, creating metrics and communicating CSR policies internally and externally. Development of best practices in an organization pertaining to corporate social responsibility.

SMGT 782. Supply Chain Management. 3 Credits.
Planning, organizing, and controlling the organization's supply chain are examined in context of the triple bottom line. Total cost analyses or product and process life cycles are considered in the context of strategy and operations. Topics include sourcing, operations, distribution, reverse logistics and service supply chains. Process measurements and the impact on organizational performance in the context of footprints (e.g., carbon, water, pollution). Discussion of existing and potential software systems.

SMGT 784. Sustainable Water Management. 3 Credits.
This course addresses practical applications of sustainability in aquatic environments. Topics covered include water and health, water quality and quantity, governance, assessing the aquatic environment, water treatment technologies, environmental mitigation, and impacts of climate change. Emphasis will be on selected areas of interest from the perspective of public health, engineering, and municipal conservation management.

SMGT 785. Waste Management and Resource Recovery. 3 Credits.
Students will develop an understanding of the generation, treatment, and disposal of municipal, industrial, and agricultural wastes. Students will critically evaluate waste management and resource recovery processes and policies in the United States and compare them with practices used in other countries. Students will develop written and oral presentation skills necessary to effectively convey technical, economic, and social information related to waste management.

SMGT 790. Capstone Preparation Course. 1 Credit.
This one-credit course orientation course is designed to prepare students for the capstone project. Students will conduct research and literature reviews resulting in a capstone project proposal. Project proposal must receive approval before commencement of SMGT 792.
P: gr st.

SMGT 792. Capstone Project. 3 Credits.
Completion of the approved capstone project assisting students' synthesis of their learning throughout the program. This project will result in research papers, multimedia presentations, actual field settings, or other projects that demonstrate each student's ability to understand how to apply what he or she has learned in the program.

SMGT 795. Special Topics in Sustainable Management. 3 Credits.
Various specialized areas of sustainable management will be examined. This course may be repeated for credit with a different topic.
P: gr st.

SMGT 798. Independent Study. 1-3 Credits.

Urban and Regional Studies (UR RE ST)

Courses

UR RE ST 699. Travel Course. 1-6 Credits.
Travel courses are conducted to various parts of the world and are led by one or more faculty members. May be repeated to different locations.
P: cons of instr & prior trip arr & financial deposit.

Water Science (WATER)

Courses

WATER 644. Geochemistry of Natural Waters. 3 Credits.
This class will explore the theory and application of aqueous geochemistry principles to the study of surface and groundwater systems at low to moderate temperatures. The class will focus on inorganic processes including the hydrologic cycle, chemical weathering, chemical activities in natural waters, thermodynamics, kinetics, acid/base equilibria, carbonate chemistry, acid water systems, heavy metals, redox reactions, saline waters, and ancient fluids preserved in fluid inclusions.
P: GEOSCI 202, CHEM 211 & CHEM 212
Fall Even.

Faculty Members

A

Rebecca Abler; Professor; Ph.D., Virginia Polytechnic Institute and State University

Theresa E Adsit; Senior Lecturer; M.S., University of Wisconsin - Milwaukee

Riaz Ahmed; Assistant Professor; Ph.D., University of South Carolina

Tanim Ahsan; Assistant Professor; Ph.D., Marquette University

Tohoro F Akakpo; Associate Professor; Ph.D., Michigan State University*

Patricia A Albers; Senior Lecturer; M.B.A., University of Wisconsin - Oshkosh

Gregory S Aldrete; Professor; Ph.D., University of Michigan

Iftekhar Anam; Assistant Professor; Ph.D., University of Memphis

Scott A Ashmann; Professor; Ph.D., Michigan State University*

Dana Atwood; Associate Professor; Ph.D., Western Michigan University

Andrew W Austin; Associate Professor; Ph.D., University of Tennessee

B

Mandeep Bakshi; Assistant Professor; Ph.D., Panjab University (India)

Gaurav Bansal; Professor; Ph.D., University of Wisconsin - Milwaukee*

Carl A Battaglia; Senior Lecturer; Ph.D., University of Wisconsin - Madison

Jeffrey A Benzow; Associate Professor; M.F.A., University of Wisconsin - Milwaukee

Devin Bickner; Associate Professor; Ph.D., Iowa State University

Mary D Bina; Senior Lecturer; B.F.A., University of Wisconsin - Milwaukee

Caroline S Boswell; Associate Professor; Ph.D., Brown University

Forrest W Brooks; Lecturer; M.S., University of Wisconsin - Milwaukee

Douglas Brusich; Assistant Professor; Ph.D., University of Iowa

Albert Bugaj; Professor; Ph.D., Purdue University

Deborah A Burden; Senior Lecturer; M.S., University of Wisconsin - Stevens Point

Kathleen C Burns; Associate Professor; Ph.D., University of Massachusetts

C

Thomas Campbell; Associate Professor; Ph.D., Southern Illinois University

Denise A Carlson-Gardner; Lecturer; B.F.A., University of Wisconsin - Stevens Point

Bryan James Carr; Associate Professor; Ph.D., University of Oklahoma

Vallari Chandna; Associate Professor; Ph.D., University of North Texas

Laxmi Chataut; Assistant Professor; Ph.D., University of Alabama

Ankur Chattopadyay; Assistant Professor; Ph.D., University of Colorado at Colorado Springs

Franklin M Chen; Associate Professor; Ph.D., Princeton University*

Stacie Christian; Associate Lecturer; M.S., University of Wisconsin - Green Bay

Phillip G Clampitt; Professor; Ph.D., University of Kansas

Heather Clark; Assistant Professor; Ph.D., Memorial University

Alise Coen; Associate Professor; Ph.D., University of Delaware

Kevin J Collins; Associate Professor; M.M., University of Texas - Austin

David N Coury; Professor; Ph.D., University of Cincinnati

Jason Cowell; Assistant Professor; Ph.D., University of Minnesota

Marcelo P Cruz; Associate Professor; Ph.D., University of California - Los Angeles

Illene N Cupit; Professor; Ph.D., Temple University

Ryan M Currier; Associate Professor; Ph.D., Johns Hopkins University*

D

Jared Dalberg; Associate Professor; M.E., Augusta State University

Toni L Damkoehler; Professor; M.F.A., University of Wisconsin - Madison

Gregory J Davis; Professor; Ph.D., Northwestern University*

Kristy J Deetz; Professor; M.F.A., The Ohio State University

Christin A DePouw; Associate Professor; Ph.D., University of Illinois at Urbana-Champaign

Sarah A Detweiler; Associate Professor; M.F.A., University of Florida

William Dirienzo; Assistant Professor; Ph.D., University of Virginia

Mathew E Dornbush; Professor; Ph.D., Iowa State University*

Michael L Draney; Professor; Ph.D., University of Georgia*

E

Karen Eckhardt; Lecturer; Master of Education, Cardinal Stritch University

Paul Emmett; Professor; Ph.D., University of Chicago

Jeffrey P Entwistle; Professor; M.F.A., Michigan State University

Paul Erdman; Associate Professor; Ph.D., University of Iowa

F

Heidi S Fencl; Professor; Ph.D., The Ohio State University*

Kevin J Fermanich; Professor; Ph.D., University of Wisconsin - Madison*

Hernan Fernandez-Meardi; Associate Professor; Ph.D., Universite de Montreal (Canada)

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