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## Welcome

## Publication Date: March 15, 2024

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

- Students entering in Summer 2024, Fall 2024 or Spring 2025 will use this edition (2024-2025) to map their academic plans in consultation with faculty and staff advisers.
- Students 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 their academic 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)


## 2024-2025 Undergraduate Catalog

## UW-Green Bay Education

The University of Wisconsin-Green Bay is known for excellence in teaching, its focus on problem solving, its attractive bayshore campus and a friendly, welcoming atmosphere.

## Major Advantage

UW-Green Bay students choose from a wide selection of majors and fields of study.
In every academic program, the curriculum is designed to provide students the tools necessary to evaluate and address real-world problems. There is an expectation that students will be challenged to integrate ideas from different fields, seek connections, consider more ideas rather than fewer, to manage uncertainty rather than fear it, and to always remember there is rarely one answer.

UW-Green Bay's approach is notable in that students choose their majors from traditional disciplines (fields of study) but also from the University's extensive list of "interdisciplinary" majors. Interdisciplinary is a term used by educators to describe programs that bring together the best thinking and thinkers in multiple fields to address complicated, interrelated issues.

An example of an interdisciplinary major is Environmental Science, where a student might apply biology, chemistry, mathematics, geoscience or other disciplines to larger environmental concerns. Other examples of interdisciplinary majors include Business Administration, and Democracy and Justice Studies.

Every student completes a major.

## Valuable Skills

In an interdependent world with a growing innovation economy, the future will favor people who are flexible, highly adaptable, entrepreneurial and effective communicators.

UW-Green Bay's top academic leaders talk of the demand they see for "T-shaped individuals" - people with deep intellectual roots and skills in a specific discipline who are able to reach out to link up with individuals having similarly deep roots in other disciplines.

The UW-Green Bay academic approach emphasizes the development of these high-value traits: flexibility for on-the-job learning; ability to work in small, task-oriented teams; capacity to analyze and delineate a clear overview of a problem; strong written and verbal communication skills; technological competence and information literacy; and the ability to collaborate with individuals from diverse backgrounds.

## Connections Outside the Classroom

Students, faculty and staff connect learning to life, every day, through research, internships, paid employment and volunteer involvement in the community.

Green Bay and its surrounding region provide ample opportunity. Long known as a manufacturing, papermaking and food-processing center and the home of the Packers, Green Bay has experienced growth in the healthcare, insurance and tourism sectors of its economy. While the metropolitan population is about 250,000, the city serves as the trade, transportation and cultural heart of an increasingly diverse region of nearly one million residents extending across much of northern Wisconsin and the Upper Peninsula of Michigan. Green Bay is home to excellent museums, parks, theatres and sports-related facilities. It is the gateway to popular Midwest vacation destinations in the scenic Door Peninsula and Wisconsin's northern forests.

## 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:

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 UW System 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:

Dean of Students
University of Wisconsin-Green Bay
2420 Nicolet Drive
Green Bay WI 54311-7001
(920) 465-2152

This catalog is an informational publication of UW-Green Bay. Its provisions DO NOT constitute a contract between the student and the University.

## About UW-Green Bay

- Our Mission (https://www.uwgb.edu/chancellor/university-mission/)
- At a Glance (https://www.uwgb.edu/about/quick-facts/)
- Degrees and Accreditation (p. 11)
- Institutional Learning Outcomes (https://www.uwgb.edu/provost/institutional-learning-outcomes/)
- State Authorization for Distance Education (p. 12)
- UW-Green Bay In-Depth (https://www.uwgb.edu/about/quick-facts/)


## Degrees and Accreditation

## Undergraduate Degrees

- Associate of Arts and Sciences (A.A.S.)
- Bachelor of Arts (B.A.)
- Bachelor of Applied Studies (B.A.S.)
- Bachelor of Business Administration (B.B.A.)
- Bachelor of Fine Arts (B.F.A.)
- Bachelor of Music (B.M.)
- Bachelor of Science (B.S.)
- Bachelor of Science Nursing (B.S.N.)
- Bachelor of Social Work (B.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
- Athletic Training, Commission on Accreditation of Athletic Training Education
- Chemistry, American Chemical Society
- Dietetics component of Human Biology, Academy of Nutrition and Dietetics
- Electrical Engineering Technology, Engineering Technology Accreditation Commission of ABET
- Environmental Engineering Technology, Engineering Technology Accreditation Commission of ABET
- Mechanical Engineering, Engineering Technology Accreditation Commission of ABET
- Mechanical Engineering Technology, Engineering Technology Accreditation Commission of ABET
- 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
- Registered Dietitian Nutritionists component of Nutrition \& Integrated Health, Accreditation Council for Education in Nutrition and Dietetics
- Social Work, Council on Social Work Education
- Teacher Education, Wisconsin Department of Public Instruction


# Administration <br> University of Wisconsin System <br> Jay Rothman - President 

## Board of Regents

- Robert Atwell
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- Corey Saffold
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- Karen Walsh
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- Olivia Woodmansee


## University of Wisconsin-Green Bay

- Michael Alexander - Chancellor
- Kathleen Burns - 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 several online degree programs, a list of which can be found on our website (https://www.uwgb.edu/ academics/online/).

## 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 M-SARA. The terms and conditions of SARA can be found in the current SARA Policy Manual (https://nc-sara.org/resources/guides/). 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) in accordance with the State Authorization Reciprocity Complaint Process and available at UW System Student Complaint Process Information (https://www.wisconsin.edu/student-complaints/).
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 The Distance Learning Authorization Board's Frequently Asked Question (http://www.heab.state.wi.us/DLAB/ faq.html) resource.

## Approved SARA Institutions in Wisconsin

A list of approved SARA Institutions in Wisconsin is included in the NC-SARA Directory (https://www.nc-sara.org/directory/).

## 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.

The State Authorization Guide (https://nc-sara.org/guide/state-authorization-guide/) provided by NC-SARA includes the contact information for each state's agency for complaints regarding SARA and non-SARA institutions.

## General Information

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## Admissions

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## Admission Standards

Success at the university level requires proficiency in a number of academic skills areas. Preparation for university study is best achieved by completion of a rigorous high school program. In order to be assured that students are prepared to successfully complete college-level work, UW-Green Bay is guided by a philosophy of personalized admission and comprehensive applicant review.

## High School Coursework

New first year applicants will typically meet or exceed the following college-preparatory unit standards:

- English, 4 credits
- Science, 3 credits
- Math, 3 credits
- Social Studies, 3 credits
- Academic Electives*, 2 credits
- Other Electives**, 2 credits
- Total: 17 credits
* From the areas of English, science, math, social studies, or foreign language.
** From the above areas and/or in the fine arts, computer science, business or other areas.

Consideration for admission is based on a number of factors: cumulative grade point average, GPA trends, GPA in core courses, strength of collegepreparatory curriculum in high school, special talent/circumstances, leadership and extra/co-curricular participation, socio-economic background, the personal statement, and other materials requested as part of the application process. ACT/SAT score are not required, but you are welcome to provide them.

Criteria may be guided based on enrollment targets, application volume, and institutional capacity.

## Home Schooled Students

The Admissions Review Committee will consider students individually based on the same criteria used for other applicants.

## GED/HSED Applicants

The Admissions Review Committee will consider students who have completed the tests for the General Education Development (GED) or the High School Equivalency Diploma (HSED). Factors considered in these decisions include:

- Review of high school coursework completed
- Review of total GED/HSED score, plus review of individual test scores
- ACT/SAT scores are not required, but you are welcome to provide them

Students with GED/HSED scores below admissible standards may be considered if additional coursework has been taken to improve ability in that area. Since a GED/HSED test may be taken only once if a passing score is earned, successful additional work may be presented as evidence of ability.

## Transfer Admission Requirements

Students who have attended college after high school graduation may transfer to UW-Green Bay if the college work has been successful. All transfer applications receive a comprehensive review. Admission decisions are based on GPA, number of credits earned, rigor and breadth of curriculum, and other predictors of success. Generally, students with a cumulative transfer GPA of 2.0 or above have the highest likelihood of admission. Based on the comprehensive review, students with less competitive academic records may be admitted with the requirement they participate in the Gateways to Phoenix Success program, or may be placed on a waiting list, or denied admission.

Admission to UW-Green Bay does not guarantee admission to all majors. A number of majors have competitive program admission requirements. To see if your proposed major has additional admission requirements, refer to the Undergraduate Programs section of this catalog.

## Degree-Seeking Students

## Application Procedures for Degree-Seeking Students

Degree-seeking students applying to UW-Green Bay should submit the University of Wisconsin undergraduate application. The application can be found online at apply.wisconsin.edu. (https://apply.wisconsin.edu/) If you prefer a paper application, you can print a PDF from that website.

## Transcripts

New first-year students must request that a copy of the high school transcript be sent directly to the Office of Admissions at UW-Green Bay. Many students are admitted to the University on the basis of grades earned through the junior year in high school, plus a listing of the classes carried in the senior year. In this way, they may be admitted before high school graduation. The University must receive a final copy of the transcript after graduation to verify that the student has, indeed, graduated and has maintained a satisfactory academic record. This must be received prior to the student beginning classes at UW-Green Bay.

Changes on a transcript from what was originally reported (for example, dropped or failed classes or a drop in GPA) may alter the admission decision. A cancellation of admission may result, especially if there is a serious drop in GPA and grades.

Other students may be asked to provide grades through the senior year of high school to assist the Admissions Review Committee in making the best possible evaluation of their potential for achievement.

Students who hold GED or HSED diplomas must have an official score report for the GED/HSED sent directly to UW-Green Bay by the agency or school.

Transfer students must request that official transcripts be sent directly to UW-Green Bay from all post-secondary schools attended. Transfer students with fewer than 15 completed transferable credits must also have a high school transcript.

All students who have attended nursing, business, and vocational and technical colleges must submit those transcripts as well. (Transcripts from noncollege training schools attended as part of military service are not required.) Students must submit the records whether or not the work was completed and regardless of their desire to request UW-Green Bay credit for the courses.

UW-Green Bay accepts a number of courses and credits from the Wisconsin Technical Colleges. More information is available about transfer agreements (https://www.uwgb.edu/admissions/credit-transfer/) and transferrable courses. Credit transfer equivalencies between UW campuses and the WTCS campuses can be found at www.wisconsin.edu/transfer. (https://www.wisconsin.edu/transfer/)

## Dates

Admission application priority dates are tentative and may change depending upon enrollment capacities. Applications submitted after priority dates will be considered as space permits. Applications typically are accepted after the priority dates listed below. Deadlines can be found for the current application term at https://www.uwgb.edu/admissions/deadlines/.

## Application Fee

There is no cost to apply to UW-Green Bay for any undergraduate applicants. This includes new freshmen and transfer students seeking undergraduatelevel credentials, associate degrees, and/or bachelor's degrees.

## Placement Testing

## English/Writing: ACT or SAT Test Scores

Official ACT or SAT scores are optional and used for placement purposes only for:

- all new freshmen;
- all transfer and reentry students who have not satisfactorily completed at least one college-level course in Writing Foundations;
- special (non-degree) students who want to enroll in an Writing Foundations course;
- students wishing to be eligible for intercollegiate athletics.

ACT/SAT test scores are used to provide a basis for course level placement in Writing Foundations. While UW-Green Bay does not require the ACT/ SAT for Admissions purposes, in order to enroll in a Writing Foundations course above WF 100, an ACT/SAT score is needed.

## Mathematics: Wisconsin Mathematics Placement Test

The Wisconsin Mathematics Placement Test (WMPT) is required for:

- all new freshmen;
- all transfer and reentry students who have not satisfactorily completed a college-level mathematics course;
- all special students who want to enroll in a mathematics course.

WI Regional Placement Testing begins in March and are available online and unproctored using a computer. Students not able to test online will be offered the opportunity to test on campus via paper/pencil testing. The test results determine the course level placement for mathematics courses.

## Transfer Students

## Credit Evaluation

Official credit evaluations are started after all transcripts have arrived at UW-Green Bay and the student has been admitted; the final official evaluation is held until a final transcript showing grades from the last term and any degrees earned is received.

## Transferable Coursework

Credit is awarded for college-level course work completed at institutions accredited by a regional or national accrediting organization recognized by the Council for Higher Education Accreditation (CHEA). Courses must be similar in nature, level, and content to a course in our undergraduate curriculum and applicable to a UW-Green Bay academic program.

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 must submit your academic records to a professional evaluation service currently recognized by NACES (https://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)

Continuing education courses or units, graduate-level courses, and courses that are remedial, technical, vocational, or doctrinal in nature are not transferable for undergraduate students.

## General Education Requirements

A student who transfers to UW-Green Bay must satisfy UW-Green Bay General Education requirements by completing or transferring courses that meet the UW-Green Bay General Education requirements in effect at the time of enrollment. Students will still be required to complete all other degree and graduation requirements (http://catalog.uwgb.edu/undergraduate/planning/graduation-requirements/).

As listed below, degrees from the following institutions will satisfy all lower-level general education requirements:

- An Associate of Arts and Sciences Degree from any University of Wisconsin campus earned after 1990.
- A Bachelor's Degree from a regionally accredited college or university in the United States. (Also satisfies Math and Writing Competencies)
- An Associate of Arts and Sciences Degree from College of Menominee Nation
- Liberal Arts/University Transfer Associate Degrees from the Wisconsin Technical College System (WTCS) institutions
- Any Minnesota State College and University (MnSCU) - Associate of Arts or Associate of Science degree meeting Minnesota Transfer Curriculum (MnTC) requirements.
- Any Illinois community college Associate of Arts or Associate of Science degree meeting the full requirements of the Illinois Articulation Initiative Gen Ed Curriculum (IAI GECC).

Associate of Applied Science degrees do not automatically satisfy all general education requirements
Students who have completed the Michigan Transfer Agreement (MTA) will have several, but not all, general education requirements satisfied. Students should consult their advisor for more details.

Some, but not all of the above degrees include a course that satisfies the UW System Ethnic Studies requirement. Students should consult their advisor for more details.

## Special Students

## (Students Not Seeking Degrees)

Students who want to take selected courses for credit but do not have the immediate intention of earning a degree at UW-Green Bay may enroll as special students. A special student is identified as a nonmatriculated student but may earn regular credit, which is permanently recorded for possible future use. Special students should be prudent in course selections and the number of credits accumulated. For example, an excessive number of electives may not apply to degree requirements if the student decides to change to degree-seeking status in the future. Certain opportunities, such as financial aid, for which degree-seeking students may be eligible, are not available to special students. Special students are subject to all normal academic regulations and Regent policies.

A student who has been, or who is likely to be, denied degree-seeking status for a given semester at UW-Green Bay may not enroll as a special student for that semester, and will be subject to review by the Admissions Review Committee when applying for subsequent semesters. Also, a student not in good standing at another college may be denied special student status at UW-Green Bay.

## Special Student Categories

## Special

Students who have not previously earned a baccalaureate degree and are not currently pursuing a degree at UW-Green Bay, are classified as specials.

## Post Baccalaureate or Graduate Special

These are students who have already earned a baccalaureate degree (or higher) and are enrolled in undergraduate-level or graduate-level coursework but are not pursuing a degree at UW-Green Bay.

## High School Special

High school students may enroll for UW-Green Bay coursework while attending high school or during the summer.

High school specials must normally be seniors or juniors in high school and must demonstrate readiness for college-level work. Enrollment in UW-Green Bay courses requires the approval of the high school.

## Summer/Winterim Session Only

Students enrolled at another college or university and current-year high school graduates who have been admitted to another college or university for the fall session may apply for Summer or Winterim Session Only admission. Such admission carries no commitment for permission to register for the regular UW-Green Bay academic year. Students from other colleges or universities must be eligible to continue at their respective institutions and are responsible for determining if their institutions will accept credits earned at UW-Green Bay.

## Application Procedures for Special Students

Nondegree-seeking students applying for admission should submit a Special Student Application, available online at apply.wisconsin.edu (https:// apply.wisconsin.edu/). (A paper version is available from the Admissions Office.) Often, the completed application is the only information required, but some situations will require the submission of additional records.

High School Special students must submit an official high school transcript in addition to the application.
Early College Credit students must submit a high school transcript, as well as the UW System ECCP participation form. The form is available at https://www.uwgb.edu/eccp/application-registration-process/

No application fee is required of special students.

## Other Admission Information

UW-Green Bay Admissions Office website: www.uwgb.edu/admissions/ (http://www.uwgb.edu/admissions/)

## Teacher Preparation

Students who expect to seek teaching licensure should review the section on Education in the Undergraduate Programs segment of this catalog.
A student who will earn teaching licensure should apply as a degree-seeking student.

## International Student Admission

International students from around the globe contribute to the rich diversity of the UW-Green Bay learning community.
Admission for international students is based upon scholastic achievement and ability to use the English language. Note: Proof of ability to finance a UW-Green Bay education is expected prior to the issuing the necessary Certificate of Eligibility (Form I-20).

An international student must have a recognized certificate of completion from a secondary school and provide transcripts for all high school work. Transcripts will also be required from all post-secondary schools attended, if any. Since all UW-Green Bay coursework is conducted in English, each international applicant must provide evidence of English proficiency. For further information about meeting the English proficiency requirements at UWGreen Bay, go to www.uwgb.edu/admissions/international/apply (https://www.uwgb.edu/admissions/international/apply/) and click on "English Language Proficiency."

The Office of International Education at UW-Green Bay will issue the necessary Certificate of Eligibility (Form I-20) to admitted students once it is confirmed the student has the ability to finance a UW-Green Bay education.

Further information about international student admission is available at www.uwgb.edu/admissions/international/apply/. (https://www.uwgb.edu/ admissions/international/apply/)

## Rising Phoenix

Students from approved participating school districts may be admitted to the Rising Phoenix program. Rising Phoenix is a collaboration between school districts and UW-Green Bay, providing students with a future-proofing blend of dual enrollment, ongoing student success coaching and an opportunity to earn a high school diploma and an Associate of Arts and Sciences degree while still in high school. Only students from approved participating school districts may apply to this program and admissions is based on a holistic admissions process, assessing students individually based on academic and personal backgrounds.

## Admissions Appeals

A student who has been denied admission may appeal that decision by letter to the Director of Admissions. Students may contact the Office of Admissions for additional information.

## 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 Student Billing. Consult the Student Billing website at https://www.uwgb.edu/student-billing/.

## 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.


## Academic Rules and Regulations

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## Absence and Attendance Policy

## 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 or session, They are 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 or session 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 Student Accessibility Services (https://www.uwgb.edu/student-accessibility-services/) (920) 465-2481


## Academic Advising

The academic advising process at UW-Green Bay is designed to maximize students' educational potential through communication and information exchanges with an advisor; these exchanges are ongoing, individualized, multifaceted, and the responsibility of both student and advisor. Advising is assumed to be a developmental, decision-making process that assists students in the clarification of their life/career goals and the completion of educational plans for the realization of those goals. The advisor serves as a facilitator and coordinator of student learning through educational planning and academic progress review, and an agent of referral to other campus programs and services as necessary. Academic advising is a joint effort of Enrollment Services, Academic Affairs, and Student Affairs.

Upon admission, all undergraduate students will be assigned to a professional advisor in the Office of Academic Advising. This professional advisor specializes in advising for the student's chosen program(s) and supports student exploration of other programs offered at the university. Students will typically remain assigned to the same professional advisor from admission through graduation. The student's assigned professional advisor and contact information is available in the student's SIS (Student Information System) account.

## Academic Forgiveness

Returning students, who have not earned a baccalaureate or associate degrees, and have not enrolled in any courses at UW-Green Bay for a minimum of three consecutive years (six consecutive fall/spring semesters) prior to re-admission are eligible to request academic forgiveness. Academic forgiveness will be considered only for those with a1.99 cumulative GPA or lower during prior enrollment period. If academic forgiveness is granted, all grades received from courses taken three or more years before readmission will be excluded when calculating the student's cumulative grade point average on their academic transcript. All prior grades and quality points are not excluded in financial aid satisfactory academic progress calculations. Courses that meet General Education requirements that are forgiven will be used to satisfy these degree requirements. Other forgiven courses may be used to satisfy major/minor/certificate requirements, including support courses, must be approved by the faculty advisor/academic department representative as substitutions. Credits that have been forgiven, are not eligible for inclusion in calculating and awarding of All University Honors.

Requests for Academic Forgiveness can be made through the Office of Academic Advising (https://www.uwgb.edu/registrar/forms/) but must be made within three consecutive semesters after readmission. Students are encouraged to apply for academic forgiveness upon readmission to the university. When applying for academic forgiveness after having taken additional classes upon return to the University, the student must be in good academic standing in semesters since readmission to apply. This policy does not impact financial aid eligibility. All prior courses and the original grades must be used when determining eligibility for financial aid.

## Academic Honors

- Semester Honors (p. 21)
- Graduation Honors (p. 21)


## Dean's List

(also known as Semester Honors)

- Acknowledgement of academic excellence for a semester and awarded by the academic Dean.
- Dean's List semester honors are awarded on a semester basis.
- Semester Honors are denoted on the academic transcript in the specific semester awarded.
- Students are eligible to earn semester honors if they are enrolled in a minimum of 12 graded credits for the semester. If any courses of the 12 total credits are graded as pass/fail or audited basis a student would not be eligible for this designation.
- If all grades are not submitted at the time the Dean's List is run on individual student records, the designation may not appear until final grades are received and recorded to the record.
- Honors requires a minimum of 12 graded credits and a semester grade point average from 3.500 to 3.749
- High Honors requires a minimum of 12 graded credits and a semester grade point average from 3.750 to 3.999
- Highest Honors requires a minimum of 12 graded credits and a semester grade point average of 4.0


## Honors Recognition at Commencement

Associate degree students will be recognized at the commencement ceremony and honors cords provided if these two requirements are met:

1. The student's cumulative grade point average meets the minimum requirements at the end of the semester preceding their final term; and
2. graded credits in residence, including credits in progress during their final term at UW-Green Bay, total a minimum of 24 credits.

Bachelor degree students will be recognized at the commencement ceremony and honors cords provided if these two requirements are met:

1. the student's cumulative grade point average meets the minimum requirements at the end of the semester preceding their final term; and 2. graded credits in residence, including credits in progress during their final term at UW-Green Bay, total a minimum of 48 .

## All-University Academic Honors

Acknowledgment of overall academic excellence at the university level upon completion of an Associate degree and completing 24 regularly graded (GPA calculations do not include P-NC or audit graded courses or course grade points removed via Academic Forgiveness appeals process) credits taken in residence at UW-Green Bay.

Honors requirements for students who earn Associate degrees are:

- with Honors designation requires a cumulative grade point average of 3.5000 or higher.

Acknowledgment of overall academic excellence at the university level upon completion of a Bachelor degree and completing 48 regularly graded (GPA calculations do not include P-NC or audit graded courses or course grade points removed via Academic Forgiveness appeals process) credits taken in residence at UW-Green Bay.

Honors requirements for students who earn Bachelor degrees are:

- Cum Laude designation requires a cumulative grade point average from 3.500 to 3.749;
- Magna Cum Laude designation requires a cumulative grade point average from 3.750 to 3.849;
- Summa Cum Laude designation requires a cumulative grade point average of 3.850 or higher; or a cumulative grade point average of 3.750 to 3.849 and eligibility for and successful completion of an honors in the major project.

Honors cords are issued and honors designation earned is denoted on the commencement program based on cumulative GPA earned in the semester prior to commencement ceremony.

Final honors designation is transcribed on the diploma issued and academic transcript record once all outstanding grades are issued. All University Honors can be rescinded, increased or added upon final assessment of grades and degree requirements in the final semester.

There are no exceptions to these rules.

## 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. An academic warning is an advisory notice that a student should take action to improve his or her performance. Probation and strict probation are formal academic actions that document unacceptable performance on the student's official transcript. An academic suspension action is taken when a student's achievement record indicates a need to interrupt enrolled status. Official academic actions on part-time students are withheld until they have attempted at least 12 credits at UW-Green Bay.

## Good Academic Standing

A student is in good academic standing if the student's cumulative resident grade point average is 2.00 or greater. Academic standing is reviewed at the end of each academic term. Every student is expected to maintain at least a 2.00 grade point average on all work carried in every term, including summer session. Students who fail to maintain this minimum grade point average will face academic warning, probation, strict probation, or suspension, as specified.

## Academic Probation

A student in good standing will be placed on academic probation if he/she earns a cumulative grade point average of less than 2.00 but greater than 1.00 . Academic probation is an advisory warning and is not subject to appeal.

## Strict Probation

A student will be allowed no more than two consecutive academic terms to remove him/herself from probation. If a student is on probation and earns a cumulative grade point average of less than 2.00 at the end of the probationary term, he/she will be placed on strict probation. A student on strict probation must regain good academic standing by the end of the strict probationary term in order to continue at the University.

## Return to Good Standing

A student on probation or strict probation will be cleared of probation at the end of any term in which a cumulative grade point average of 2.00 or better is attained.

## Academic Suspension

A student will be suspended from the University if he/she fails to achieve a cumulative grade point average of 2.00 at the end of a semester on strict probation or if his/her cumulative grade point average falls below 1.00.

## Appeals Process

Academic suspension status may be appealed to the provost's designee. Appeals must be filed within the deadline specified in the official suspension notification. The action of the provost's designee may be appealed to the Academic Actions Committee within the deadline specified in the official suspension notification. The decision of the Academic Actions Committee is final. A student who is allowed to continue as a result of an appeal will be placed on suspension waiver, and is subject to any special conditions that may be designated. An academic suspension provides time for a student to give careful thought to the circumstances that resulted in the suspension action. Suspension appeals must include a clear explanation of the circumstances that resulted in inadequate achievement, and a statement explaining how the student proposes to resolve those circumstances.

Students planning to appeal should consider:

- Are the relevant facts and dates clearly stated and documented?
- Are the extenuating circumstances cited of an unforeseeable nature?
- Are relevant recommendations from instructors included, if appropriate?


## Readmission Following Academic Suspension

Students who have been suspended may appeal for continued enrollment (see Appeals Process). For students who do not appeal for continued enrollment, or for whom the appeal is denied, the period of the first suspension shall be one regular semester. A student seeking readmission to the University after the expiration of the suspension must make formal application through the Admissions Office. Readmission cannot be guaranteed. A written request for readmission must accompany formal re-application to the University. A student who is readmitted after suspension will be placed on suspension waiver. If a student is readmitted and fails to regain good academic standing after re-admittance, a second suspension will be incurred. The second suspension shall be for a period of two regular semesters.

## Audit Enrollment (U/S grade)

- A student may elect to enroll in a course but not receive a letter grade.
- Degree seeking students may audit a course by requesting a change to the grade basis using the Grade Change/Audit form which is approved by the faculty instructor.
- Special student only auditors (course takers) use the same Grade Change/Audit (http://www.uwgb.edu/registrar/forms/) form. Several conditions apply to audit only students and are highlighted in detail on the request form or Bursar information page. Click here (http://www.uwgb.edu/bursar/ tuition-fees/audit-students/) for more information.
- Audit grading option, is not reversible after add/drop deadline for the respective course. ${ }^{1}$
- Audit classes do not count toward degree requirements.
- Students can audit any undergraduate courses except:
- Independent study
- Internships
- Honors projects
- Professional courses in Education, Nursing, and Social Work
- Adult Degree courses open to BAS and BA-ILS majors only
- Graduate-level courses

1 Add/Drop deadlines vary by length of course.
Courses have an add period in which a new grading option can be requested and approved using the appropriate forms mentioned above. You can find your course dates on the Registration calendar (http://www.uwgb.edu/registrar/calendar/registration/) the deadline is based on the course length. If you are not able to find your information, please feel free to contact ssc@uwgb.edu.

## Audit Students

Students taking a mix of regular and audit courses are not eligible for a fee reduction. See the Registrar's Office for policies and procedures.
Audit Only students must have written approval from the course instructor prior to enrolling. Please use the Audit Form (https://www.uwgb.edu/ registrar/forms-petitions/registration-forms/) in the Registrar's office to secure approval from the course instructor and apply for a reduced fee. Additionally, audit only students must complete a "special student" application with the Admissions office. Residency determination will be made at the time of application/admission to the University.

The decision to enroll on an audit basis for tuition purposes must be made at the time of registration.
Any course fees or field trip expenses are the responsibility of each student.
Wisconsin Residents under age 60 will be charged $30 \%$ of the normal per credit academic fee.
Wisconsin Residents Age 60 and older will have the normal academic fees waived. Age 60 and over auditors will be required to provide proof of date of birth (Driver's license or birth certificate).

Disabled Wisconsin residents who are receiving disability insurance benefits under either the federal Supplemental Security Income (SSI) program or the federal Social Security Disability Insurance (SSDI) program will have the normal academic fees waived. A copy of your Social Security benefit letter will be required.

Minnesota Reciprocity residents will be charged 30\% of the normal per credit Minnesota Reciprocity fee.
Nonresidents will be charged $50 \%$ of the normal per credit academic fee.
Upper Michigan MSEP (MI Compact) will be charged $50 \%$ of the normal per credit academic fee.

## Audit Student Fee Payment Instructions

You must report to the Student Billing office (SS1300) to have charges manually adjusted to the appropriate audit rate. Tuition and fees are due at the time of registration.

## 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.


## Class Standing

Class standing is determined by the number of earned credits a student has completed. In-progress credits do not count toward standing. Class levels are defined as:

| Freshman | 23 or fewer earned credits |
| :--- | :--- |
| Sophomore | 24 to 53 earned credits |
| Junior | 54 to 83 earned credits |
| Senior | 84 or more earned credits |

## Co-op

(numbered 494, 1-2 credits)
Participation in a full-time position at a host organization providing direct, on-the-job experience with professionals already successful in the selected field. The co-op will be in a position closely related to a professional career associated with the major.

- Students must complete at least two (2) co-op credits during the fall or spring semester and one (1) credit in the summer to be considered full-time status.
- Course is repeatable for credit.
- No more than 6 credits may be used to meet requirements for a major and no more than 3 credits may be used to meet requirements for a minor; may vary by academic department.


## Course Adds

Add one or more courses to a schedule and/or change course load.
Students may add one or more courses after the start of a term or session with no grade assigned and no financial penalty based upon the deadlines noted below. The Add Deadline is based upon the length of the session.

- Regular 14 -week semester long courses or longer: within the first 7 days of the session.
- 10-week sessions: within the first 7 days of the session.
- 8 -week sessions: within the first 7 days of the session.
- 6 -week sessions: within the first 3 days of the session.
- 4-week sessions: within the first 2 days of the session.
- 3 -week sessions: within the first day of the session.

After the Add Deadline has passed, a student may submit a Late Add eform (https://www.uwgb.edu/registrar/forms-petitions/registration-forms/) for the course they wish to add late. If the instructor approves the Late Add eform, the student will be added to the course by the Student Services Center and assessed a $\$ 15$ Late Add Fee. If the instructor denies the Late Add eform, the student will be informed of the denial and will not be added to the course.

Please check the Registration Calendar (http://www.uwgb.edu/registrar/calendar/registration/) for the specific deadline dates each term.

## Course Drops

Remove one or more courses from a schedule but remained enrolled in at least one credit.
Students may drop one or more courses after the start of a term or session based upon the deadlines noted below. Please see the Student Billing Resources website for information regarding drop fees and refunds.

Regular 14-week semester long courses or longer:

- Courses dropped within the first 2 weeks of the session will not receive an academic grade.
- Courses dropped within the third through eighth weeks of the session will receive an academic grade of 'W'.

Sessions less than 14 weeks:

- Courses dropped within the first week of the session will not receive an academic grade.
- Courses dropped within the second week through the first half $(50 \%)$ of the session will receive an academic grade of 'W'.

After the Drop Deadline has passed, a student may submit a Late Drop Petition for review 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. Courses dropped through the Late Drop Petition will receive an academic grade of 'W'.

- Regular 14-week semester long courses or longer: The Late Drop Petition is required within the ninth week through the last day of classes.
- Sessions less than 14 weeks: The Late Drop Petition is required during the second half ( $50 \%$ ) of the session.

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 Student Billing Resources website for more details (https://www.uwgb.edu/student-billing/dates/term-deadlines/). 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 for Military Experience

Students must submit official Joint Services Transcripts (JST) or Community College of the Air Force (CCAF) transcripts. All recommendations for Lower Division Baccalaureate/Associate Degree and Upper Division Baccalaureate credit will be honored. The total number of lower division credits will be recorded as a block of lower-level elective credit. The total number of upper division credits will be recorded as a block of upper-level elective credit.

Vocational Certificate credit is not transferrable. Recommendations for Graduate level credit may be transferrable at the discretion of the graduate program. Specific military credit may apply to requirements in a major or minor at the discretion of the program chair of the major or minor.

## 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

Total number 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 18 credits during any regular session of fall, spring or summer semester and may register for a maximum of six credits in the January semester, no exceptions. A student who wants to enroll in more than 18 credits in fall, spring or summer semester must obtain written approval in advance from their faculty or academic advisor using the credit overload petition. 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. A student may register for or reduce a program below 12 credits in a semester with the understanding that for certain purposes he or she will be considered a part-time student. A student who reduces the credit load below 12 credits should check with the appropriate offices about the effect on financial aid, government benefits, athletic eligibility, health insurance coverage, and other programs with credit load eligibility limits.


## 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.

## Declaration of Major

Students are admitted with their "Major", "Minor", or "Certificate" of interest noted for advising purposes. All students are required to have an official major and faculty advisor on file with the Registrar's Office by the time they have a total of 45 credits earned. Some majors require additional entrance requirements or addition of an area of emphasis, thus a student must complete the program admit process requirements. These students will be added as Pre-Majors to their area of study. A "Major", "Minor", or "Certificate" is not fully valid until the student is also assigned a faculty advisor. Students should follow the departmental directives for declaring a major/advisor assignment using the resources found in departmental web pages. Students are encouraged to discuss a major with faculty representatives as early as possible in their undergraduate career. The declaration of major/ minor/certificate form is available online at http://www.uwgb.edu/registrar (http://www.uwgb.edu/registrar/).

## Degree Residency Requirement

- A minimum of 30 credits must be earned at UW-Green Bay.
- The minimum credit residency requirement for a major is 15 credits.
- The minimum credit residency requirement for a minor is 9 credits.
- One half of the upper-level requirements for any major, minor, etc., must be earned at UW-Green Bay.

A student who has completed the junior year and meets the residency requirement, but cannot complete the senior year in residence for reasons of employment transfer or other cause, can graduate from UW-Green Bay. Appropriate courses taken at another university as a substitute for senior year residence at UW-Green Bay can be selected with an adviser. Selected courses must then be approved by the chairperson of the student's major and, if necessary, by the appropriate academic dean.

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, major and minors.

## Earning a Second Degree

## Earning a Second Bachelor's Degree at UW-Green Bay

Currently, UW-Green Bay has no dual degree programs. Students who have earned a first baccalaureate degree from UW-Green Bay may earn a second, distinct baccalaureate degree by completing a minimum of 30 additional undergraduate credits in residence subsequent to the awarding of the first degree and by satisfying all major requirements for the second degree. The subsequent 30 credit requirement should include a minimum of 15 credits that are used to satisfy the requirements for the major as part of the second degree. The two bachelor's degrees earned must have different degree designations (e.g., BS, BA, BAS, BBA, BSN, BSW).

Students seeking an additional major or minor in the same degree designation after having already earned that baccalaureate degree from UWGreen Bay may do so. Post-baccalaureate activity is recorded on their academic transcript, and the subsequent credential is recorded at the time of completion.

## Educational Status

## Degree-Seeking:

A degree-seeking student is enrolled in a program of study and plans to earn an Associate or Bachelor degree at the undergraduate level.

## Special Student:

A special student is not seeking a degree, but taking courses. Status impacts the admissions process and financial aid eligibility.

## 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 | 12 credits |
| :--- | :--- |
| Three-Quarter Time | $9-11$ credits |
| Half Time | $6-8$ credits |
| Less than Half Time | $1-5$ credits |

## Global Catalog Numbers

The UW-Green Bay faculty and administration have approved the use of some catalog numbers across all subject headings. Academic departments are able to schedule these experiences without securing additional approval through the curricular approval process.

## Courses include:

- 297 - Internship (p. 31)
- 298 - Independent Study (p. 31)
- 299 - Travel Course (p. 37)
- 478 - Honors in the Major (p. 30)
- 494 - Co-op (p. 24)
- 495 - Teaching Assistantship (p. 36)
- 496 - Project/Research Assistantship (p. 33)
- 497 - Internship (p. 31)
- 498 - Independent Study (p. 31)
- 499 - Travel Course (p. 37)


## 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 |
| :--- | :--- | :--- | :--- |
| ART 105 | A | 3 | 12 |
| MATH 104 | BC | 4 | 10 |
| GERMAN 102 | C | 4 | 08 |
| WF 100 | C | 3 | 06 |
| Total |  | 11 | 30 |

(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.) 30 divided by 11 equals 2.72 grade point average.

## Grading Policy

## Cumulative Grade Point Average

Grade point average for all completed terms at UW-Green Bay. It is calculated by dividing the cumulative total grade points earned 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.

## 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 seven (7) calendar 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 $\mathrm{F}=$ 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.

## Grading System and Grade Points

Grade point averages indicate academic and class standing and 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.

## 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 undergraduate 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 |
| DR | Dropped Course | No effect |
| W | Withdrew | No effect |
| T | Transfer Course, pass | No effect |
| PR | Progress in graduate thesis or internship, not complete | No effect |
| IP | In progress course | No effect |
| (Grade | Academic Forgiveness Applied | No effect/Example (F) |
| assigned) |  |  |

## Guidelines for Certificates

The University of Wisconsin Green Bay offers certificates to provide students the opportunity to develop focused expertise in select academic areas, as a means to further their employability, or to enhance their professional qualifications. All certificate programs must have an executive committee which oversees the offering of the certificate. In establishing a new certificate, a clear rationale must be provided by the Executive Committee detailing the purpose and value of that certificate.

## Requirements for Certificates

All certificates must have a minimum of 12 required credits. Those credits can be any combination of lower and upper level courses.
The certificate may be either associated with an academic program or a stand-alone certificate (i.e. a certificate that is not associated with an academic program). If the certificate is a stand-alone certificate, it must demonstrate that it provides for increased employability or enhanced professional qualifications for anyone receiving the certificate.

The Executive Committee's membership must include a minimum of three tenured faculty members. The committee can be an existing Executive Committee, such as a budgetary unit or department, or can be developed among interested faculty. The committee must meet at least once a year and forward copies of minutes for all meetings to the Provost's Office.

The Executive Committee must appoint an advisor for the certificate or have the chair serve that function. The advisor or chair advises students and performs necessary administrative tasks such as approving substitutions.

In order to be awarded a certificate, a student must have a minimum 2.0 Grade Point Average in the certificate's courses and earn 9 credits or one half the total required credits, whichever is greater, in residency at UWGB. The Executive Committee may establish a Grade Point Average higher than 2.0 or additional criteria that must be met to earn a certificate.

Students must declare that they are pursuing a Certificate Program by filing a Declaration of Major/Minor/Certificate form.
The Registrar's Office transcribes certificates earned on an academic record when a student completes a degree. Certificate Executive Committees may print and award a separate certificate of completion.

## Guidelines for Majors and Minors

- Majors will consist of a minimum of 30 credits with at least 24 credits at the upper level.
- Minors will consist of a minimum of 18 credits with at least 12 credits at the upper level. The exceptions are Mathematics, Music, Art, and Theatre.
- The official transcript will include only type of degree and date earned; major(s), minor(s), and All-University Honors, Distinction in the Major and any Semester Honors achieved. Majors, Minors, and Certificates are only transcribed if a Bachelor's degree is earned.
- Diplomas will carry only the degree (B.A., B.S., etc.) and All-University Honors if achieved.
- Overlapping of requirements for majors, minors, and professional programs with the general education requirements is permitted.
- Courses may not count for two requirements in a major, minor, professional program or general education.
- Majors, minors and professional programs may declare that their requirements are valid for a maximum period of five years following the final approval of a student's academic plan.


## Students with Two or More Majors

Students who declare two or more majors at the same time are granted only one baccalaureate degree and receive only one diploma upon graduation If the majors declared have different degree designations, then the student must choose which degree they want to receive. All successfully completed majors are recorded on the student's academic transcript.

Any student that has earned a baccalaureate degree at UWGB can earn an additional major or minor post-graduation. Students with a baccalaureate degree from another University would need to complete degree requirements (and residency) to have a major and minor posted on their official transcript.

## Honors in the Major

(numbered 478, 3 credits)

- Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
- Honors in the Major may not be substituted for a major requirement.
- The Honors in the Major project should be planned during the junior year.
- Students should enroll for Honors in the Major study during the first semester of registration with senior standing (84 or more degree credits) to ensure adequate time to complete it by graduation. Students should consult with sponsoring faculty during the junior year to determine possible special needs for library resources, equipment, supplies or field research.
- Eligibility requirements for Honors in the Major are:
- Minimum grade point average of 3.500 for all courses required for the major, as indicated on the degree audit.
- Minimum grade point average of 3.750 for all upper-level courses required for the major, as indicated on the degree audit.
- Successful completion of the Honors in the Major project requirements.
- An Honor in the Major is different from All-University Honors. Rather than a required, cumulative grade point average, the grade point average is calculated on courses required for the major only and there is no residence requirement as with All-University Honors. An honor in the major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
- Students are recognized at Commencement if the Honors in the Major project is completed and minimum GPA requirements are met, in the preceding semester to commencement.
- Honors in the Major can be awarded, rescinded or All University Honors increased to Summa Cum Laude, in a final semester of completion based on the outcome of the last remaining courses of record. Final GPA calculations, grades and All University Honors designations are not completed at time of commencement due to grading deadlines and degree conferral timeframes.
- There is no residency requirement for Honors in the Major.
- Regular semester/session add and drop deadlines apply; no P-NC grading is permitted.


## 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 subsequent semester
- 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 298; 498, variable 1-4 credits)

- Students can complete independent study courses at the lower or upper level.
- The student must prepare a statement of objectives and a list of readings and/or research projects that will fulfill the objectives.
- Independent study cannot be elected on audit or pass-no credit basis.
- Independent study may be taken only with a UW-Green Bay faculty member, instructional academic staff member (e.g., Lecturer), or visiting scholar.


## Individualized Course Instruction

## Universal Expectations

- Faculty approval is needed for courses that are individualized or coordinated by the student for a specific learning experience.
- Regular semester add and drop deadlines apply to these learning experiences.
- Approved forms must be submitted in the semester the learning experiences are taking place; students will not be retroactively added into these courses.
- 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 a tuberculosis test) or other requirements outlined by a third party human resources department or site supervisor.
- The title and content of these individualized courses should not duplicate the title and content of existing courses.
- For each credit earned, 45 hours is the minimum number of hours to be dedicated to the learning experience over the course of the semester.
- A freshman or sophomore must have a minimum cumulative grade point average of 2.500 and a junior or senior must have a minimum of 2.000 to enroll in an independent study.
- Faculty members have the ability to override this GPA requirement and indicate as such on the approval form.


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

- Honors in the Major (p. 30)
- Independent Study (p. 31)
- Internship/Co-op (p. 31)
- Project/Research Assistantship (p. 33)
- Teaching Assistantship (p. 36)


## Internship \& Co-op

## Internship

(numbered 297, variable 1-6 credits)
(numbered 497, variable 1-12 credits)

- Students will have a site supervisor and faculty supervisor for the work performed.
- All parties-student, faculty member, and site supervisor-should discuss and set expectations regarding the hours worked and performance feedback before the work begins. All parties must sign the internship proposal form.
- All additional requirements for employment (if any) should be identified prior to enrollment and an outline of how these will be met explained to the student intern.


## Co-op

(numbered 494, variable 1-2 credits)

Participation in a full-time position at a host organization providing direct, on-the-job experience with professionals already successful in the selected field. The co-op will be in a position closely related to a professional career associated with the major. Students must complete at least two (2) co-op credits during the fall or spring semester and one (1) credit in the summer to be considered full-time status. Course is repeatable for credit. No more than 6 credits may be used to meet requirements for a major and no more than 3 credits may be used to meet requirements for a minor; may vary by academic department.

## Mode of Instruction

## In-Person

A fully on-campus (i.e., face-to-face) course where the students and instructor meet during a specified time at a specified location. Student participation is required and class sessions are not recorded. Technology, such as the use of a Learning Management System (e.g. Canvas), may be used at the discretion of the instructor.

The schedule of classes and Student Information System (SIS) will list the meeting day/time/place for the course.

## Online

A course which is exclusively online and has no scheduled meeting times. Class materials can be accessed on a flexible schedule, but students will be required to meet instructor-specified deadlines and due dates. Technology, such as the use of a Learning Management System (e.g. Canvas) and reliable internet access, will be required.

## Virtual Classroom

A course where students and instructors interact online synchronously (at scheduled meeting times). Technology, such as reliable internet, and the use of a Learning Management System (e.g. Canvas) and web conferencing tool (e.g. Zoom), will be required.

The schedule of classes and Student Information System (SIS) will list the meeting day/time for the course.

## Hybrid

A course which combines on-campus and online components. On-campus sessions require student participation and will not be recorded. The online activities may be either asynchronous (without scheduled meetings, students work on their own time) or synchronous (scheduled meetings). Technology, such as reliable internet, and the use of a Learning Management System (e.g. Canvas) and/or a web conferencing tool (e.g. Zoom), will be required.

The schedule of classes and Student Information System (SIS) will list the meeting day/time/place for the course.

## Campus-to-Campus

A course where the instructor and some students attend in-person at one campus while the remaining students attend in-person at one or more other campuses. Student participation is required and class sessions are not recorded. Technology, such as the use of a Learning Management System (e.g. Canvas), may be used at the discretion of the instructor.

The schedule of classes and Student Information System (SIS) will list the meeting day/time/place for the course.

## Campus-to-Anywhere

A course where the instructor and some students attend in-person at one campus while the remaining students attend online at the same time (synchronously). Student participation is required and class sessions are not recorded. Technology, such as reliable internet, and the use of a Learning Management System (e.g. Canvas) and/or a web conferencing tool (e.g. Zoom), will be required.

The schedule of classes and Student Information System (SIS) will list the meeting day/time/place for the course.

## 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 and include: - general education courses
- courses used to fulfill English Composition and Writing Emphasis (WE) requirements
- major and minor courses except those offered as P-NC only (includes student teaching, some Social Work courses, Business Administration/ Accounting internship, etc.)
- honors in the major (478) projects
- independent study $(298,498)$ courses
- P/NC grading option is requested using the Change Grading Basis form and must be approved by faculty instructor.
- P/NC grading option is not reversible after add/drop deadline for the respective course. ${ }^{1}$ Electives may be taken on a P-NC basis.
- For pass-no credit, grades of $A, A B, B, B C$, 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.

1 Add/Drop deadlines vary by length of course.
Courses have an add period in which a new grading option can be requested and approved using the appropriate forms mentioned above.
You can find your course dates on the Registration calendar (http://www.uwgb.edu/registrar/calendar/registration/) the deadline is based on the course length. If you are not able to find your information, please feel free to contact ssc@uwgb.edu.

## Petition Process for Late Drop or Late 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 late 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.

## Posthumous Degrees and In Memoriam Degrees

In the unfortunate event that a student passes away before the completion of a degree, the University may award the student a degree posthumously. To be awarded a posthumous degree, the student must have completed $75 \%$ of the credits toward degree ( 45 for an Associate's Degree; 90 for a Bachelor's Degree; 22 for Master's Degree) and be in good academic standing ( 2.0 for undergraduate; 3.0 for graduate). The conferred degree is noted in the Student Information System and reported to external stakeholders.

Alternatively, the University may consider awarding an "In Memoriam Degree". This is an honorary degree, which is noted in the Student Information System but not reported to external stakeholders. There are no completion or academic standing requirements to award this honorary degree.

## Project/Research Assistantship

(numbered 496, variable 1-6 credits)

- The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.


## Regular and Substantive Interaction

[^0]\%7C1000\&sdata=TahDeVJrtk52Cn4RifdK4HIwi0x3TCNaC003FeNI7P0\%3D\&reserved=0) regarding academic engagement and regular and substantive interaction between the faculty and students.

## Academic Engagement

Active participation by a student in an instructional activity related to the student's course of study that- (1) Is defined by the institution in accordance with any applicable requirements of its State or accrediting agency; (2) Includes, but is not limited to- (i) Attending a synchronous class, lecture, recitation, or field or laboratory activity, physically or online, where there is an opportunity for interaction between the instructor and students; (ii) Submitting an academic assignment; (iii) Taking an assessment or an exam; (iv) Participating in an interactive tutorial, webinar, or other interactive computer-assisted instruction; (v) Participating in a study group, group project, or an online discussion that is assigned by the institution; or (vi) Interacting with an instructor about academic matters; and (3)

Does not include, for example- (i) Living in institutional housing; (ii) Participating in the institution's meal plan; (iii) Logging into an online class or tutorial without any further participation; or (iv) Participating in academic counseling or advisement.

## Regular

Regular interaction requires that faculty provide both the opportunity for substantive interaction and the monitoring of student engagement and success in the course prior to submitting the final grade.

In each class, faculty are expected to provide regular interaction with the class in accordance with content and pedagogy. In most cases, regular interaction should occur weekly; exceptions to this institutional preference may include field placements, practicums, internships, or similar course work. Faculty should provide substantive interaction with each of their classes throughout the term.

## Substantive

Substantive interaction in a course includes, but is not limited to, 1) Providing direct instruction through synchronous in-person or online meetings with students or asynchronous recordings of video or audio lectures; 2) Leveraging tools in our LMS or other institutional technology for class discussions, small group activities, and/or individual lessons or meetings; 3) Assessing or providing feedback on a student's coursework; and 4) Responding to student questions about the content of a course or competency in a timely manner.

## 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.

## Retroactive Credit

Degree seeking students who enter the university with advanced preparation in Calculus, Music Keyboard Musicianship or German, French or Spanish, may receive retroactive credit as indicated below.

## Institutional Policy Regarding the Awarding of Retroactive Credit:

- Only degree seeking students who have been admitted to UW-Green Bay are eligible to receive retroactive credit. (The only exception is for high school students enrolled in UW-Green Bay Modern Language courses.)
- Retroactive credits are granted toward a UW-Green Bay degree; policies of other colleges would determine whether they would accept these Retroactive credits for transfer into their program, college or university.
- All credit awarded through retroactive credit options must equate to a specific UWGB course or courses. Credit cannot be awarded as general elective credit.
- Credit cannot be awarded for a course that already appears on a student's transcript.
- Retroactive credit awarded may not be used for grade point average calculation and does not count as credits in residence for the purposes of honors or degree program requirements.
- To receive credit a student must comply with all institutional policies and procedures relating to the awarding of retroactive credit.
- Courses will be recorded on the student's transcript as retroactive credit. The awarding of retroactive credit is limited to the specific courses listed below.


## French, German, Spanish or other World Languages offered at UW-Green Bay

Degree seeking students may earn up to 14 credits as identified below for their previous world language study in French, German, Spanish, or other world languages offered at UW-Green Bay by completing courses beyond the 101 level. With a grade of "B" or better, credit will be given for all world language courses preceding the one in which the student has enrolled (of the eligible courses listed below), to a maximum of 14 credits. With a grade of "BC" or "C," half credit will be given for the courses preceding the one in which the student has enrolled, to a maximum of seven credits.

For example, with four years of high school Spanish, students who complete SPANISH 224 or SPANISH 225, with a grade of "B" will receive 14 retroactive credits for SPANISH 101, SPANISH 102, SPANISH 201, and SPANISH 202 in addition to the three earned credits for SPANISH 225; students who complete the course with a "C" will receive seven retroactive credits for SPANISH 101 (2 of the total 4 credits), SPANISH 102 ( 2 of the total 4 credits), SPANISH 201 ( 1.5 of the total 3 credits), and SPANISH 202 ( 1.5 of the total 3 credits).

Students with previous world language knowledge should select appropriate courses by either (1) counting a year of high school work as roughly equivalent to a semester of college work; or (2) taking the UW System World Language Placement Test. If a student has studied Spanish for three years in high school, he or she should probably enroll in the fourth course in college (i.e., SPANISH 202). but might also consider 201; or (3) discussing their world language with a language advisor in the case of heritage learners. If more than two years have elapsed since the last language study, students should consult with a language faculty program coordinator to determine proper placement.

To determine if a student meets the above criteria for retroactive credit, the Registrar's Office will review the official posted grade rosters and where appropriate, the courses and corresponding credits will then be recorded on the student's transcript.

High school students enrolled in UW-Green Bay Modern Language courses are eligible to earn retroactive credits. This is the only retroactive credit option available to CCIHS, ECCP, or high school special program students.

Retroactive credit will not be awarded based on a student's performance on any sort of test. This includes, but is not limited to, AP, CLEP, or Challenge exams. Retroactive world language credits may only be earned by satisfactorily passing a course at UW-Green Bay or through an approved CCIHS program as described above.

Retroactive credits earned at any UW System institution or from Saint Norbert College courses will be honored and granted to transfer students. Retroactive world language credits awarded by other institutions will not be granted to students who transfer to UW-Green Bay. Students may request an exception to this policy by submitting a written appeal to the language coordinator of the department they wish to receive credit from.

## Math (Calculus and Analytic Geometry II (MATH 203))

Students coming with a background in Calculus can be placed in MATH 203 and may receive retroactive credit for MATH 202. If a student receives a grade of "C "or better then retroactive credit can be awarded for MATH 202. Credits for calculus at UW-Green Bay may also be awarded for satisfactory performance on an AP exam. More details are available here (https://www.uwgb.edu/otsa/credit-for-prior-learning/advanced-placement-(ap)-program/).

Retroactive credit for MATH 202 is not awarded to students who transfer to UW-Green Bay and have completed coursework deemed to be equivalent to MATH 203. If the student completes MATH 209 or MATH 305 at UW-Green Bay, they may submit an approved Retroactive Credit Form to the Registrar's Office to be awarded credit for MATH 202 only.

## Music Keyboard Musicianship

Students successfully completing MUS APP 21, MUS APP 31, or MUS APP 41 may be eligible to receive retroactive credit for preceding courses in this sequence.

In order to receive retroactive credit for one or more Keyboard Musicianship courses a student is required to earn a grade of "BC" or better; courses taken on a Pass/No Credit basis will not be eligible for retroactive credit. Retroactive credit will be given in Keyboard Musicianship for all of the courses in the sequence preceding the one in which the student has enrolled, to a maximum of 3 credits.

To determine eligibility for retroactive credit students must consult with a member of the Music faculty who will advise them regarding which Keyboard Musicianship course they should take. If a student meets the criteria above, the instructor must complete the Retroactive Credit Form and submit it to the Registrar's Office. The appropriate courses and corresponding credits will then be recorded on the student's transcript.

The awarding of retroactive credit for Keyboard Musicianship courses began in fall 2012.
Transfer students who have completed coursework deemed to be equivalent to any of the classes listed above must meet with a member of the Music faculty to determine if they are eligible for retroactive credit.

## 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.

## Teaching Assistantship

(numbered 495, 1-6 credits)

- The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives.
- Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship.


## Transfer Credit Policy

It is the policy of UW-Green Bay to accept transfer credits in full compliance with the UW System Board of Regents Transfer Credit Policy (https:// www.wisconsin.edu/transfer/uw-transfer-policy/). Some of the basic components of that policy are:

1. The college or university attended must be accredited by an appropriate accreditation association.
2. All courses from a baccalaureate granting institution that is not regionally accredited may be eligible for transfer review by an appropriate UW-Green Bay department chair, or if an equivalent department is nonexistent, by an appropriate UW-Green Bay academic dean.
3. Whenever possible, transfer courses are equated to UW-Green Bay course numbers for equivalent courses. If there is an equivalent department, but not equivalent course, elective credit associated with the department will be granted. In such instances, the UW-Green Bay department will be consulted to make a determination whether the transfer elective might be counted toward the major or minor requirements.
4. Granting of academic credit is the responsibility of the faculty but this function is normally carried out by their designee.
5. A course designated as fulfilling a general education/breadth requirement at one UW institution should transfer as general education/breadth at the receiving UW institution. This principle should apply whether or not the receiving institution has a direct course equivalent.

After a student has been admitted as degree seeking, the Office of the Registrar will evaluate completed and in-progress coursework at the time of application. Upon receipt of a final transcript which includes final grades for courses previously in-progress, the credit evaluation will be completed. See more details in this section (http://catalog.uwgb.edu/undergraduate/general-information/admissions/transfer-students/).

## Appeals

If you believe that there has been an error or oversight in your credit evaluation, please contact the Office of the Registrar (registrar@uwgb.edu) for assistance. In the event of an unresolved disagreement with the evaluation, you will be referred to the appropriate academic chairperson for a second review. You should be prepared to furnish a course syllabus or a letter of description from the previous institution if you wish to appeal the initial evaluation. If a satisfactory resolution cannot be reached after conferring with the chairperson, you may then appeal that decision to the appropriate academic dean. The decision of the academic dean shall be considered the final level of appeal.

## Travel Courses and Study Abroad

The University of Wisconsin - Green Bay encourages students to take advantage of educational opportunities all over the world.

## Travel Courses

Travel Courses are led by UW-Green Bay faculty and count as UW-Green Bay resident credit. They are offered in many subject areas (ex, PSYCH, BUS ADM) and have a course number of either 299 for lower-level, or 499 for upper-level. Typically, these courses last $2-4$ weeks and are offered during January Interim or Summer. Students register for these courses in SIS during normal registration times. 499 courses can be used to satisfy the Global Culture general education requirement. Contact your Professional Advisor for more details.

## Study Abroad

Study Abroad provides a once-in-a lifetime experience that will help you explore the world, learn and grow personally, become more culturally savvy \& build essential skills that any employer is looking for.

Study Abroad courses are recorded as transfer credit, however, they may be used to meet major, minor, and/or general education requirements. Prior to departing, students work with their Professional Advisor and Faculty mentor to determine how courses taken abroad will apply to their UW-Green Bay degree. Contact the Office of International Education for more details.

## Study Abroad through another Institution

UW-Green Bay partners with other UW schools to help increase Study Abroad destinations for students. If another UW offers a destination that UWGreen Bay does not, it may be possible to participate in the experience through the other UW school. Courses taken this way can then be transferred to UW-Green Bay and may be used to meet major, minor, and/or general education requirements. Prior to departing, students work with their Professional Advisor and Faculty mentor to determine how courses taken abroad will apply to their UW-Green Bay degree. Upon return, students must submit their foreign transcript to a professional evaluation service currently recognized by NACES (https://www.naces.org) for review. UW-Green Bay recommends ECE (https://www.ece.org) or WES (https://www.wes.org). Contact the Office of International Education for more details.

## Types of Credit

## Attempted

Number of credits a student originally enrolled in a specific session or term before grades are awarded.

## Degree Credits

Credits earned that count toward the 120 credits required for a bachelor's degree. Academic support courses do not count toward degree completion; they may have a credit value assigned and may be acceptable for enrollment verification.

## Earned Credits

Number of credits (excluding audit credits) where a final grade and quality points have been awarded which are used to calculate grade point average for the term and cumulatively. Courses that are graded with a letter or passing grade are calculated in this total; temporary grades of $\mathrm{I}=\mathrm{Incomplete}$ or N = Not yet graded, are excluded.

## Withdrawal

Officially remove all courses from schedule; student is no longer enrolled.
Students may withdraw from all courses after the start of a term or session based upon the deadline dates noted below. Once a student drops to zero credits of enrollment, the Registrar's office withdraws the student from the semester. Please see the Student Billing website for information regarding withdrawal fees and refunds.

- Regular 14-week semester long courses or longer: Students who withdraw from all courses within the first 2 weeks of the session will not receive an academic grade. Students who withdraw from all courses within the third through twelve weeks will receive an academic grade of 'W'.
- Sessions less than 14 weeks: Students who withdraw from all courses within the first week of the session will not receive an academic grade. Students who withdraw from all courses within the second week through the first half ( $50 \%$ ) of the session will receive an academic grade of 'W'.

After the Withdrawal Deadline has passed, a student may submit a Late Withdrawal Petition for review 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. Courses dropped through the Late Withdrawal Petition will receive an academic grade of 'W'.

- Regular 14-week semester long courses or longer: The Late Withdrawal Petition is required within the thirteenth week through the last day of classes.
- Sessions less than 14 weeks: The Late Withdrawal Petition is required during the second half $(50 \%)$ of the session.
- 

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 Student Billing website for more details (https://www.uwgb.edu/student-billing/dates/term-deadlines/). Please note that financial deadlines are different from academic deadlines.

## Writing Emphasis Guidelines

In accord with the Purpose and Policies of the UW-Green Bay Writing Emphasis requirement, instructors of WE courses are not expected to teach writing skills but are expected to provide a series of writing assignments in accord with the guidelines below and to identify students with weak writing skills and assure that they get help from the Writing Center.

1. Students must complete three or more "public discourse" writing assignments as part of the course requirements. Public discourse assignments are written for an audience other than the writer. (Journals and diaries are excluded.) Typical public discourse assignments include--but are not limited to--research papers, essays, essay exams (in class or take home), lab reports, literature reviews, and others.
2. The three or more public discourse writing assignments must total a minimum of 2000 words (i.e., by the end of the semester each student must have turned in at least 8 to 10 pages of "public discourse" writing).
3. The public discourse assignments must count for a significant portion of the course grade. The intent of this guideline is to provide a strong incentive for students to take their writing assignments seriously. Writing assignments typically constitute $25 \%-33 \%$ of the final WE course grade.
4. The quality of the writing must be evaluated, not just the content. Organization and development of ideas, clarity of expression, coherence between sentences and paragraphs, and adherence to the conventions of written English are among the factors that instructors are expected to take into account in evaluating the public discourse assignments.
5. At least one public discourse assignment must be evaluated and returned to students during the first third of the course (i.e., before the end of the 4th week of a regular semester course). The intent of this guideline is to assure that students with weak writing skills are identified early enough in the semester to allow them to get help for their writing problems. Note that there is no required length for this assignment, nor is there a requirement that it count significantly towards the final grade. As long as other assignments in the course meet the other guidelines listed above, any writing assignment that provides the instructor with the opportunity to identify students with serious writing problems may be used to meet this guideline. Thus a typical first assignment might be a one or two page summary of--or reaction to--an assigned reading or a lecture, or a review of a film, or a preliminary description of the major paper the student proposes to write for the course, or a discussion of a problem related to the course that the student is interested in investigating, or a one-page answer to a study question.
6. Instructors of WE courses are required to notify students at the start of the semester that the course is a Writing Emphasis course and to strongly encourage students who need writing-skills help to use the services of the Writing Center. The syllabus should identify the course as a WE-approved course, describe the writing assignments in detail, and inform students that the Writing Center is the place to seek help with their writing skills.
7. Instructors of WE courses are expected to regularly evaluate the effectiveness of the writing assignments in helping students improve their writing skills and to make appropriate adjustments in those assignments in response to the evaluation results.

## WE Required Assignments

- Three or more "public discourse" writing assignments must be included as part of the course requirements. "Public discourse" means the work is written for someone other than the writer. (Thus, journals and diaries are excluded.) These assignments may include in-class work including essay exams.
- These writing assignments must total a minimum of 2000 words.
- Writing assignments must constitute at least $25 \%$ of the grade for the course.
- One public discourse assignment must be evaluated and returned to the student before the end of the 4th week of class. (This is to allow students to seek help with their writing early in the course.)


## 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. 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 child.

## 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 them, the student has committed a violation of the UWGB's rules or policies.

## 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 child.
- 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/

## University Testing Requirements

## English/Writing and Mathematics Course Placement

In order to determine mathematics and English/Writing competency and appropriate course placement for students, the University uses the Wisconsin Mathematics Placement Test (WMPT) and the English portion of the American College Testing Program (ACT) or the Critical Reading (pre-2016 test) or Reading (post-2016 test) portion of the SAT.

The following students are required** to complete the WMPT and ACT or SAT requirement:

- all new freshmen;
- all transfers and re-entry students who have not satisfactorily completed a college-level course in Writing Foundations or mathematics;
- special students wishing to enroll in a Writing Foundations or mathematics courses;
**UW-Green Bay does not require the ACT/SAT for Admissions purposes, but in order to enroll in a Writing Foundations course above WF 100, an ACT/ SAT score is needed.


## ACT Registration

Potential students interested in taking the ACT test should visit the ACT website at http://www.actstudent.org/.
UW-Green Bay is not a test site location; please check the website for test center locations nearest to your community. Be sure you indicate UWGreen Bay (code number 4688) as an institution to receive your score report. Materials to help review and prepare for the ACT test may be purchased in the Phoenix Bookstore on campus and elsewhere. For more information, call ACT at (319) 337-1270.

## English/Writing Placement

ACT English scores or SAT Critical Reading scores (pre-2016 test) or Reading scores (post-2016 test) are used to determine if a student has satisfied UW-Green Bay's English/Writing competency requirement. The following cut-off scores are used to place students in the most appropriate course based on their current level of English/Writing performance.

All international students whose country of origin's primary language is not English will be placed into WF 164, First Year Writing for International Students. The exception to this would be International students who have an ACT English score of 32 or above, or an SAT Critical Reading score of 750 or above, or an SAT Reading score of 39 or above. WF 105 or WF 200 may also be required by major.

## ACT English score: 24 or lower

## OR

## SAT Critical Reading score: 580 or lower OR SAT Reading score: 31 or lower

The student should complete WF 100 by the end of their second semester at UW-Green Bay. Students referred to WF 100 who feel they have been improperly placed have an additional option: the College Level Examination Program (CLEP) College Composition. Registration for CLEP exams can be made through Testing Services at UW-Green Bay. A passing score on the College Composition exam will earn three degree credits.

## ACT English score: 25-31

OR
SAT Critical Reading score: 590-740 OR SAT Reading score: 32-38
The student is eligible to enroll in WF 105 or WF 200. Students should complete WF 105 or WF 200 by the end of their third semester at UW-Green Bay. (Students majoring in programs in the Cofrin School of Business take WF 200 in place of WF 105.

## ACT English score: 32 or higher <br> OR

SAT Critical Reading score: 750 or higher OR SAT Reading score: $\mathbf{3 9}$ or higher
These scores satisfy UW-Green Bay's English/Writing competency requirement. These scores also satisfy the WF 105 requirement for some majors and minors.

## If you do NOT have an ACT or SAT score, you will be placed into WF 100.

## Math Placement

The Wisconsin Mathematics Placement Test (WMPT) serves as the primary instrument for determining both mathematics competency and appropriate course placement for new freshmen and transfer students who have not successfully completed a college-level mathematics course. Information on costs and testing dates are available from the Office of Testing Services.

Students must meet with an adviser to learn their WMPT score and course placement. New freshmen will be advised at the time of their GBO registration session. Continuing, re-entry and transfer students should seek assistance from the Academic Advising Office.

Students classified as new freshmen who do not complete the WMPT will not be allowed to register for mathematics classes, or for courses with collegelevel mathematics as a prerequisite, during their first semester.

Students should complete the UW-Green Bay Mathematics Competency before the completion of 60 earned and in progress credits. Students who have not taken the WMPT and received a MFND score of 466+, or have not satisfactorily completed or transferred in a college-level mathematics course, must enroll in MATH 94, MATH 99, PSYCH 205, BUSAN 220, or MATH 100 depending on academic program to fulfill competency. Students should consult with their advisor to determine the appropriate course.

## Assessment of the Major Program

All students are required to participate in the assessment of their major program of study. The assessment may take the form of a comprehensive exam, in-course assignment, portfolio, survey, interview, or any other specified means of evaluating the quality and effectiveness of the academic program.

## 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


## Colleges

Austin E. Cofrin School of Business (p. 41)
College of Arts, Humanities and Social Sciences (p. 42)
College of Health, Education and Social Welfare (p. 44)
College of Science, Engineering and Technology (p. 44)

## Austin E. Cofrin School of Business

## Mission Statement

The Austin E. Cofrin School of Business is a community of teachers, scholars, professionals, and learners dedicated to advancing the economic prosperity and entrepreneurial spirit of northeastern Wisconsin through partnerships, quality educational programs, and impactful research. We achieve this mission through the following actions:

- Addressing the educational imperative to increase access to, and completion of, quality baccalaureate and masters-level business degrees within UW-Green Bay's 16 county footprint in northeastern Wisconsin.
- Intentionally seek a student body representative of the diverse, multicultural communities of NE Wisconsin that UW-Green Bay serves as a public regional comprehensive university.
- Providing transformative undergraduate and graduate business degree programs that emphasize the use of high impact practices to prepare learners to ethically and critically address complex issues and deliver innovative socially responsible solutions.
- To instill in our learners a philosophy that the positive power of business drives economic, social, and environmental progress.
- Recognizing our role as an anchor institution, to develop and sustain meaningful partnerships that facilitate the exchange of knowledge and resources with key stakeholders, including students, alumni, faculty, businesses, and other organizations and individuals that comprise our community.
- Building a diverse community of professionals who continually seek to enhance their core proficiencies through professional development and reflective practice, and a faculty who participate in high quality and impactful scholarship that incorporates discovery, application, and teaching and learning.


## Values Statement

In pursuit of service to our students and community, the Austin E. Cofrin School of Business stresses core values in:

- Community engagement: a recognition of our responsibility to act as an anchor institution and through open dialog and partnership create shared opportunities and broad benefits across Northeastern Wisconsin.
- Leadership: a commitment that inclusivity, team-work, and interdisciplinary study enhance our ability to think creatively, act ethically, practice informed decision-making, and lead change.
- Innovation: a shared belief that reflection and calculated experimentation leads to a problem-solving mindset and continual progress in teaching, scholarship, and business evolution.
- Sustainability: a recognition of the power and responsibility of business to innovate sustainable social, environmental, and economic practices.


## Majors and Minors

- Accounting (p. 70) (Business Analysis and Reporting, Business Analysis and Reporting (Accelerated) - Integrated with graduate Management program, Managerial Accounting, Managerial Accounting (Accelerated)- Integrated with graduate Management program, Tax Compliance, Tax Compliance (Accelerated) - Integrated with graduate Management program)
- Business Administration (p. 106) (Business Analytics, Entrepreneurship, General Business, Supply Chain Management)
- Economics (p. 149) (minor)
- Entrepreneurship (p. 189) (minor)
- Finance (p. 190) (Business Finance, Personal Financial Planning, Portfolio Management)
- Human Resources Management (p. 242) (General, Professional Certification)
- International Business (p. 264) (minor)
- Management (p. 265)
- Marketing (p. 267)
- Personal Financial Planning (p. 319) (minor)


## Certificates

- Digital Marketing and Sales Management (p. 382)
- Entrepreneurship (p. 384)
- Environmental Sustainability and Business (p. 395)
- Marketing Analytics (p. 389)
- Supply Chain Management (p. 394)


## College of Arts, Humanities and Social Sciences

The College of Arts, Humanities, and Social Sciences offers over thirty undergraduate majors and minors in the visual and performing arts, humanities, communication, writing, 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 arts and culture programming, 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


## Majors and Minors

- Art (p. 78) (Art Education, Pre-Art Therapy, Studio Art,)
- Arts Management (p. 85) (minor only; Arts Management, Gallery and Museum Practices)
- Communication ( (p. 124)Health Communication, Journalism, Mass Media, Organizational Communication, Public Relations, Social Media Communication, Sports Communication)
- Criminal Justice (p. 139) (minor only)
- Dance (p. 362) (minor only)
- Democracy and Justice Studies (p. 140) (Criminal Justice, Global Democracy, Legal Studies, Social Justice, Social Studies Education)
- Design Arts (p. 147) (minor only; Environmental Design \& Community Planning, Graphic Design)
- English (p. 167) (Creative Writing, English Education, Literature)
- Environmental Policy and Planning (p. 177) (Regional Planning \& Environmental Design, Environmental Planning, Environmental Policy (Accelerated) / Integrated with graduate Environmental Science \& Policy program)
- First Nation Studies (p. 194)
- French and Francophone Studies (p. 197) (minor only)
- Geography (p. 199)
- German (p. 204)
- Global Studies (p. 208) (minor only)
- Graphic Design (p. 210)
- History (p. 213) (General, Public, Social Studies Education)
- Humanities (p. 246) (Ancient and Medieval Studies, Digital and Public Humanities, World Cultures, Environmental Humanities, Film and Cinema Studies, Humanities Online, Linguistics/Teaching English as a Second Language, Religious Studies)
- Individual Major (p. 259)
- Information Technology and Data Science (p. 260) (Data Science, Game Studies, Information Technology)
- International Business (p. 264) (minor only)
- Music (p. 283) (Music Education, Instrumental Performance, Vocal Performance, Audio Production, Composition, Individual Studies, Jazz Studies)
- Organizational Leadership (p. 312) (Applied Communication, Business Administration,Early Childhood, Emergency Management, Environmental Policy \& Planning, Management in Health Systems, Public and Nonprofit Management, Self-Directed)
- Philosophy (p. 320)
- Political Science (General, (p. 324) Social Studies Education)
- Psychology (p. 329)
- Public Administration (p. 333) (Emergency Management, Emergency Management (Accelerated) - Integrated with graduate Master of Public Administration Program, Public and Nonprofit Management, Public \& Nonprofit Management (Accelerated) - Integrated with graduate Master of Public Administration Program)
- Social Justice (p. 340) (minor only)
- Sociology \& Anthropology (p. 347)
- Spanish and Latin American Studies (p. 349)
- Theatre (p. 355) (Design/Technical, Musical Theatre, Performance, Theatre Studies)
- Women's and Gender Studies (p. 371) (minor only)
- Writing and Applied Arts (p. 373) (Community Storytelling, Editing and Publishing, Game Writing, Professional and Technical Writing)


## Certificates

- Civic and Community Engagement (p. 385)
- Data Analytics (p. 382)
- Emergency Management (p. 383)
- Environmental Sustainability and Business (p. 395)
- Geographic Information Systems (p. 386)
- German Engineering (p. 386)
- Lesbian, Gay, Bisexual, Transgender, and Queer Studies (p. 387)
- Multicultural U.S. History (p. 390)
- Nonprofit Management (p. 390)
- Professional Ethics (p. 392)
- Spanish/English Translation and Interpretation (p. 394)
- Teaching English as a Second Language (p. 396)


## College of Health, Education and Social Welfare

The College of Health, Education, and Social Welfare (CHESW) offers educational programs that are transforming in terms of developing a broader worldview, gaining new knowledge and skills, and preparing for a chosen profession. Through field experience in degree programs, students are offered the opportunity to connect within communities. Graduates contribute to the greater good of communities as teachers, nurses, social workers, health information specialists, innovators, and leaders. CHESW programs include:

- The Professional Program in Education (http://www.uwgb.edu/education/) offers a Bachelor of Science in Education with specialization options ranging from teaching Early Childhood to Adolescence. Each student completes student teaching providing hands-on learning on how to be an effective leader in the classroom. A graduate program, Master of Science in Applied Leadership in Teaching and Learning, and several dual listed courses (for both undergraduate and graduate credit) are available.
- The Nursing and Health Studies Unit (http://www.uwgb.edu/nursing/) provides a range of online and face-to-face program options to acquire a Bachelor of Science in Nursing or Bachelor of Health Information Management and Technology. It also offers graduate degrees: Master of Science in Nursing Leadership and Management and Master of Science in Health and Wellness Management, as well as certificates in health-related areas ( Management in Health Systems and Nursing Leadership). Students complete relevant practicum experiences in degree programs. Dual listed courses (for both undergraduate/graduate credit) are available.
- The Professional Programs in Social Work (http://www.uwgb.edu/socwork/) offers both a bachelor's degree in Social Work and a Master of Social Work (MSW) degree. Students complete field practicums for both degrees, providing hands-on learning in a variety of social service fields. The MSW Program also offers a school social work certificate for current and post-MSW students.

For further information about CHESW, go to https://www.uwgb.edu/chesw/

## Majors and Minors

- Community Health Education (p. 131)
- Education (p. 150) (English as a Second Language Gr. PK-12, Elementary and Middle School Grades K-9, Science Education, Accelerated Integrated with graduate Applied Leadership for Teaching and Learning program)
- Health Information Management and Technology (p. 211) (Healthcare Management, Healthcare Technology)
- Nursing (p. 300)
- Social Work (p. 341) (Child Welfare, General, Substance Abuse)


## Certificates

- Health Information Management (p. 386)
- Management in Health Systems (p. 388)
- Physical Education (p. 391)


## College of Science, Engineering and Technology

The College of Science, Engineering and Technology offers a diverse array of majors and minors through the departments of Human Biology, Natural and Applied Sciences, and the Richard J. Resch School of Engineering. These include human biology, biology, chemistry, environmental science, geoscience, physics, water science, computer science, mathematics and statistics, environmental engineering technology, electrical engineering technology, mechanical engineering technology, mechanical engineering, as well as a new major in electrical 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 on-campus and community-based research projects that actively engage undergraduate students. The College also supports two seminar series (Human Biology and Natural and Applied Sciences) and several student organizations, while also providing numerous named scholarships for students. The state-of-the art laboratory and research facilities include the Brown County STEM Innovation Center that houses the mechanical engineering and mechanical engineering technology programs, a human cadaver lab, an instrumentation laboratory, a scanning electron microscope, and numerous other research labs. A $\$ 5.7$ million renovation project was completed in 2022 and houses the electrical engineering and electrical engineering technology programs, as well as a new physics laboratory. In addition to the laboratory and research facilities associated with Human Biology, Natural and Applied Sciences, and the Resch School of Engineering, the College also includes the Cofrin Center for Biodiversity and the Environmental Management and Business Institute (EMBI), which both provide research and internship opportunities. The College also has a partnership with the Medical College of Wisconsin-St. Norbert Campus, with faculty in Human Biology providing instruction to Medical College of Wisconsin students.

Students in the College of Science, Engineering 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, equity, and inclusion.
- Become a complete student and citizen by participating in internships, co-ops, travel courses, student organizations, and other extracurricular activities.
- Fully prepare themselves for their next professional ambition - whether it be employment, further credentialing, or graduate/clinical education.


## Majors and Minors

- Biology (p. 86) (Animal Biology, Aquatic Ecology and Fisheries, Cell/Molecular, Ecology and Conservation, Microbiology, Pre-Veterinary)
- Chemistry (p. 113) (General, ACS Chemistry, ACS Environmental Chemistry, Biochemistry)
- Computer Science (p. 134) (Cybersecurity, Software Engineering)
- Electrical Engineering (p. 160)
- Electrical Engineering Technology (p. 164)
- Environmental Engineering Technology (p. 173)
- Environmental Science (p. 182) (Environmental Science, Environmental Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program; International Environmental Studies minor)
- Geoscience (p. 200) (Geoscience, Geoscience (Accelerated) - Integrated with graduate Environmental Science \& Policy program)
- Human Biology (p. 221) (General, Applied Public Health, Health Science, Exercise Science, Cytotechnology, Nutritional Sciences/Dietetics, Nutritional Sciences/Dietetics (Accelerated) - Integrated with graduate Nutrition and Integrated Health program, Athletic Training (Accelerated) Integrated with Master of Athletic Training program)
- Mathematics and Statistics (p. 269) (Mathematics, Statistics; Actuarial Science minor)
- Mechanical Engineering (p. 275)
- Mechanical Engineering Technology (p. 279)
- Physics (p. 323) (minor only)
- Sustainability (p. 354) (minor only)
- Water Science (p. 366) (Water Science, Water Science (Accelerated) -Integrated with graduate Environmental Science \& Policy program)


## Certificates

- Electrical Engineering Principles (p. 383)
- Environmental Sustainability and Business (p. 395)
- German Engineering (p. 386)
- Mechanical Engineering Principles (p. 389)


## Undergraduate Degree Components

- General Education Program (p. 47)
- Writing Emphasis (p. 62)
- Writing Competency (p. 62)
- Math Competency (p. 62)
- Capstone Requirement (p. 45)
- Graduation Requirements (p. 60)


## Capstone Requirement

## Capstone - complete one course

- Capstone courses are taken in the last semester as part of the Bachelor degree completion requirements at UW Green Bay. The capstone course is not waived for students entering with an earned block of credit, articulation agreement or for earning a prior degree.
- Honors in the Major courses approved as Capstone courses have additional requirements to enroll into the course, once the course is completed, additional review is done to award Distinction in the Major Honors when a degree is conferred.


## Learning Outcomes

- This could be either a classroom seminar experience or another integrative/culminating experience such as an internship/field experience/honors project that again addresses the campus' interdisciplinary perspective and also has a problem focus. By its very nature, the experience will also have an important communication element. They will all address:
- Interdisciplinarity
- Problem-focused
- Communication

| Code | Title | Credits |
| :---: | :---: | :---: |
| Capstone |  |  |
| ACCTG 460 | Accounting Capstone | 3 |
| ART 410 | Advanced Painting | 3 |
| ART 421 | Advanced Sculpture | 3 |
| ART 431 | Advanced Ceramics | 3 |
| ART 443 | Advanced Problems in Photography | 3 |
| ART 453 | Advanced Fibers/Textiles | 3 |
| ART 463 | Advanced Jewelry/Metals | 3 |
| ART 470 | Advanced Printmaking | 3 |
| ARTS MGT 455 | Practicum in Arts Management | 3 |
| ARTS MGT 497 | Internship | 1-12 |
| BIOLOGY 402 | Advanced Microbiology | 4 |
| BIOLOGY 490 | Biology Seminar | 1 |
| CHEM 331 | Biochemistry Laboratory | 1 |
| CHEM 413 | Instrumental Analysis | 4 |
| COMM 477 | Social Media Strategies | 3 |
| COMM 478 | Honors in the Major | 3 |
| COMM 480 | Cases in Communications and Media Management | 3 |
| COMP SCI 372 | Software Engineering | 3 |
| COMP SCI 474 | Game Engines | 3 |
| COMP SCI 478 | Honors in the Major | 3 |
| COMP SCI 490 | Capstone Essay in Computer Science | 3 |
| DESIGN 431 | Graphic Design Studio III | 3 |
| DJS 470 | Senior Seminar in Democracy and Justice Studies | 3 |
| EDUC 405 | Student Teaching | 6-12 |
| EDUC 452 | Principles of Middle Level Education | 3 |
| ENGLISH 400 | English Capstone | 3 |
| ENGR 460 | Senior Design | 3 |
| ENGR 462 | Senior Design Project | 3 |
| GEOSCI 421 | Geoscience Field Trip | 1-3 |
| ENV SCI 467 | Capstone in Environmental Science | 4 |
| ET 400 | Co-op/Internship in Engineering Technology | 3 |
| ET 410 | Capstone Project | 3 |
| FNS 391 | First Nations Studies Capstone Seminar | 3 |
| GEOSCI 432 | Hydrogeology | 3 |
| GEOSCI 491 | Senior Thesis/Research in Geoscience | 3 |
| HIMT 490 | Capstone | 3 |
| HISTORY 480 | Seminar in History | 3 |
| HRM 470 | SHRM-CP Prep I | 3 |
| HRM 471 | SHRM-CP Prep II | 3 |
| HUM BIOL 331 | Science and Religion: Spirit of Inquiry | 3 |
| HUM BIOL 361 | Human Physiology Lab - Exercise and Metabolism | 1 |
| HUM BIOL 401 | Art and Science | 1 |
| HUM BIOL 403 | Human Physiology Laboratory | 1 |
| HUM BIOL 405 | Biotechnology and Ethics | 3 |
| HUM BIOL 423 | Immunology Lab | 1 |
| HUM STUD 370 | Sustainability through the Humanities | 3 |
| HUM STUD 400 | Humanities Practicum | 3 |


| HUM STUD 480 | Humanities Seminar | 3 |
| :--- | :--- | ---: |
| INFO SCI 410 | Analytics and Information Problems | 3 |
| INFO SCI 443 | Game Development | 3 |
| INFO SCl 478 | Honors in the Major | 3 |
| MATH 329 | Applied Regression Analysis | 4 |
| MATH 385 | Foundations of Geometry | 3 |
| MGMT 482 | Capstone in Business Strategy | 3 |
| NURSING 461 | Care Transitions Practicum Immersion | 4 |
| NURSING 490 | Synthesis for Nursing Practice | 3 |
| NUT SCI 421 | Community and Public Health Nutrition | 3 |
| NUT SCI 487 | Nutritional Science Seminar | 3 |
| ORG LEAD 400 | Organizational Leadership Capstone | 1 |
| POL SCI 480 | Senior Seminar/Capstone in Political Science | 3 |
| PSYCH 478 | Honors in the Major | 3 |
| PSYCH 490 | Capstone in Psychology | 3 |
| PUB ADM 430 | Seminar in Ethics and Public Action | 3 |
| PSYCH 492 | Applied Research Lab | 3 |
| SOC WORK 420 | Micro Methods II | 3 |
| THEATRE 480 | Theatre Capstone Project | 3 |

## General Education Program

## Courses that are listed in two or more general education designations will only count in one requirement area. (e.g., ANTHRO 100 is listed as being approved as Global Culture (GC) and Social Sciences (SOC), however it will only count once, as GC or SOC. If questions contact ssc@uwgb.edu Purpose

The UWGB General Education Program supports the University's Select Mission by providing an interdisciplinary, problem-focused educational experience that prepares students to think critically and address complex issues in a multicultural and evolving world.

To that end, the UWGB General Education Program will help to develop liberally educated students and facilitate their living in an ever changing world by:

1. Introducing students to interdisciplinary education;
2. Providing knowledge that includes disciplinary breadth;
3. Working with students to develop an understanding of critical social problems;
4. Supporting the development of important academic skills including communication, critical thinking, problem solving and quantitative and information literacy.

The general education program gives students an opportunity to strengthen academic skills, broaden intellectual horizons, develop and explore new academic interests, reflect on personal values, and build a foundation of knowledge for future course work and lifelong learning.

## General Education Requirements ${ }^{1}$

All students must complete the general education requirements. Depending upon the courses chosen, as well as the need to reach competency in mathematics and writing, students may take between 36-43 general education credits and additional math or writing credits if needed to meet competency or major requirements. Courses taken to fulfill general education requirements may also be used simultaneously to fulfill requirements in the major, minor or certificate programs.

## Transfer students who enter UW-Green Bay with 15 or more transfer credits are not required to take a First Year Seminar. However, in order to meet the 36-43 credit general education requirement, they must substitute the First Year Seminar with another course in general education that is a minimum of 3 credits.

Code Title Credits
First Year Seminar ..... 3
Fine Arts ..... 3
Social Sciences ..... 6
Humanities ..... 6
Biological Sciences ..... 3
Natural Sciences ..... 3-5
Sustainability Perspective ..... 3-4
Ethnic Studies Perspective ..... 3
Global Culture ..... 3
Quantitative Literacy ..... 3-7
Total Credits ..... 36-43
1 Contact the Office of Academic Advising (https://www.uwgb.edu/advising/general-education/) for information or assistance on all matters pertaining to general education requirements, including advising.

## Biological Sciences

(complete 3 credits)

## Learning Outcomes

- Explain central principles and theories of biological sciences.
- Describe the inquiry process through which the sciences approach the development of understanding of the natural/biological world.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Biological Sciences |  |  |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 203 | Earth System History | 3 |
| GEOSCI 203 | Introduction to Human Biology | 3 |
| HUM BIOL 102 | Fertility, Reproduction, and Family Planning | 3 |
| HUM BIOL 206 | Human Disease and Society | 3 |
| HUM BIOL 217 | Reproductive Biology | 3 |
| HUM BIOL 318 | Biotechnology and Ethics | 3 |
| HUM BIOL 405 | Food and Nutritional Health | 3 |
| NUT SCI 242 |  | 3 |

## Ethnic Studies Perspective

(complete 3 credits)

## Learning Outcome

- Identify and describe ethnic, racial, and cultural contrasts from multiple perspectives.
- Articulate causes and effects of stereotyping and racism.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Ethnic Studies Perspective |  | 3 |
| ART 381 | Art of the First Nations |  |
| ART 382 | Precolumbian Art of Mesoamerica | 3 |
| ART 383 | African Art | 3 |
| ART 384 | Asian Art | 3 |
| DJS 221 | Law and Equality in Historical Perspective | 3 |
| DJS 330 | Prison and Society | 3 |
| EDUC 206 | Culturally Responsive Teaching and Learning | 3 |
| ENGLISH 236 | Multicultural American Literature | 3 |
| ENGLISH/FNS 336 | American Ethnic Literature | 3 |
| ENGLISH 344 | African American Literature | 3 |
| FNS 210 | American Indians In Film | 3 |
| FNS 211 | Mentoring First Nations Youth | 3 |


| FNS 224 | First Nations and The Sacred | 3 |
| :---: | :---: | :---: |
| FNS 225 | Introduction to First Nations Studies | 3 |
| FNS 301 | Oneida Language I | 3 |
| FNS 302 | Oneida Language II | 3 |
| FNS 303 | Oneida Language III | 3 |
| FNS 304 | Oneida Language IV | 3 |
| FNS 305 | Oneida Language V | 3 |
| FNS 306 | Oneida Language VI | 3 |
| FNS 360 | Women and Gender in First Nations Communities | 3 |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions | 3 |
| FNS 374 | Wisconsin First Nations History | 3 |
| FNS 393 | First Nations and Education Policy | 3 |
| GEOG 211 | American Ethnic Minorities | 3 |
| HISTORY 207 | Introduction to African-American History | 3 |
| HISTORY 340 | Topics in African American History | 3 |
| HMONG 200 | Introduction to Hmong Culture | 3 |
| HMONG 250 | Hmong Community Research | 3 |
| HUM STUD 213 | Ethnic Diversity and Human Values | 3 |
| HUM STUD 351 | Interdisciplinary Themes in Humanities | 3 |
| HUM STUD 353 | Latinx Culture | 3 |
| MUSIC 363 | Jazz History | 3 |
| NURSING 492 | Special Topics in Nursing (Topic \#9 only) | 3 |
| NUT SCI 202 | Ethnic Influences on Nutrition | 3 |
| POL SCI 305 | Urban Politics and Policy | 3 |
| POL SCI 361 | Immigration and Immigration Policy | 3 |
| SOC WORK 330 | Understanding Diversity, Challenging Oppression: A Service Learning Course for Helping Professionals | 3 |
| SOC WORK 380 | Cross Cultural Diversity and the Helping Professions | 3 |
| SOCIOL 203 | Ethnic and Racial Identities | 3 |
| SOCIOL 216 | Native American Landscapes:Imagined and Lived Spaces | 3 |
| SOCIOL 323 | Asian American Communities in the United States | 3 |
| SOCIOL 324 | Latino Communities in the United States | 3 |
| SOCIOL 357 | Environmental Justice | 3 |
| WOST 102 | Women's Voices | 3 |
| WOST 201 | Introduction to LGBTQ Studies | 3 |
| WOST 247 | Latin American and Latina Women | 3 |

## Fine Arts

(complete 3 credits)

## Learning Outcomes

- Demonstrate technical skills and knowledge necessary to create or perform artistic functions.
- Develop historical, stylistic, cultural or aesthetic knowledge necessary to create or evaluate quality of an art form.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Fine Arts |  |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval |  |
| ART 103 | History of the Visual Arts II: Renaissance to Modern |  |
| ART 105 | Introductory Drawing | 3 |
| ART 106 | Three Dimensional Design | 3 |
| ART 107 | Two-Dimensional Design | 3 |
| ART 202 | Modern Art | 3 |
| ART 203 | Contemporary Art | 3 |
| ART 230 | Introduction to Ceramics | 3 |


| ART 235 | Introduction to Woodworking and Furniture Design | 3 |
| :---: | :---: | :---: |
| ART 243 | Introduction to Photography | 3 |
| ART 250 | Introduction to Fibers/Textiles | 3 |
| ART 260 | Introduction to Jewelry/Metals | 3 |
| ART 320 | Art and Ideas | 3 |
| ART 376 | Modern American Culture | 3 |
| ART 379 | Women, Art and Image | 3 |
| ART 380 | History of Photography | 3 |
| ART 381 | Art of the First Nations | 3 |
| ART 382 | Precolumbian Art of Mesoamerica | 3 |
| ART 383 | African Art | 3 |
| ART 384 | Asian Art | 3 |
| ART 483 | SELECTED TOPICS | 3 |
| ARTS MGT 256 | Understanding the Arts | 3 |
| ENGLISH 224 | Practicum in Literary Publishing | 3 |
| ENGLISH 324 | Sheepshead Review Practicum | 3 |
| ENGLISH 400 | English Capstone | 3 |
| MUS APP 127 | Instrumental Lessons 1 | 1-2 |
| MUS APP 128 | Instrumental Lessons 2 | 1-2 |
| MUS APP 227 | Instrumental Lessons 3 | 1-2 |
| MUS APP 228 | Instrumental Lessons 4 | 1-2 |
| MUS APP 327 | Instrumental Lessons 5 | 1-3 |
| MUS APP 328 | Instrumental Lessons 6 | 1-3 |
| MUS APP 427 | Instrumental Lessons 7 | 1-3 |
| MUS APP 428 | Instrumental Lessons 8 | 1-3 |
| MUS ENS 147 | World Pop Ensemble | 1 |
| MUS ENS 347 | World Pop Ensemble | 1 |
| MUSIC 120 | Video Game Music | 3 |
| MUSIC 121 | Survey of Western Music | 3 |
| MUSIC 122 | Electronic Music Production | 3 |
| MUSIC 123 | Introduction to DJ Techniques | 3 |
| MUSIC 170 | Fundamentals of Music | 3 |
| MUSIC 224 | Popular Music Since 1955 | 3 |
| MUSIC 272 | Women in the Performing Arts | 3 |
| MUSIC 362 | World Music | 3 |
| MUSIC 363 | Jazz History | 3 |
| MUS ENS 142 | Jazz Combo | 1 |
| MUS ENS 143 | Jazz Ensemble | 1 |
| MUS ENS 144 | Woodwind Ensemble | 1 |
| MUS ENS 145 | Brass Ensemble | 1 |
| MUS ENS 146 | Contemporary Percussion Ensemble | 1 |
| MUS ENS 150 | New Music Ensemble | 1 |
| MUS ENS 163 | Chamber Singers | 1 |
| MUS ENS 165 | Vocal Jazz Ensemble | 1 |
| MUS ENS 166 | Opera Workshop | 1 |
| MUS ENS 188 | Hand Drumming Ensemble | 1 |
| MUS ENS 241 | Bands and Orchestra | 1 |
| MUS ENS 261 | University Singers | 1 |
| MUS ENS 262 | Concert Choir | 1 |
| MUS ENS 342 | Jazz Combo | 1 |
| MUS ENS 343 | Jazz Ensemble | 1 |
| MUS ENS 344 | Woodwind Ensemble | 1 |


| MUS ENS 345 | Brass Ensemble | 1 |
| :---: | :---: | :---: |
| MUS ENS 346 | Contemporary Percussion Ensemble | 1 |
| MUS ENS 350 | New Music Ensemble | 1 |
| MUS ENS 363 | Chamber Singers | 1 |
| MUS ENS 365 | Vocal Jazz Ensemble | 1 |
| MUS ENS 366 | Opera Workshop | 1 |
| MUS ENS 388 | Hand Drumming Ensemble | 1 |
| MUS ENS 441 | Bands and Orchestra | 1 |
| MUS ENS 461 | University Singers | 1 |
| MUS ENS 462 | Concert Choir | 1 |
| THEATRE 110 | Introduction to Theatre Arts | 3 |
| THEATRE 128 | Jazz Dance I | 1 |
| THEATRE 131 | Acting I | 3 |
| THEATRE 137 | Ballet I | 1 |
| THEATRE 141 | Period Dance Styles | 1 |
| THEATRE 145 | Modern Dance I | 1 |
| THEATRE 161 | Tap Dance I | 1 |
| THEATRE 190 | Introduction to Applied Musical Theatre Voice | 1 |
| THEATRE 200 | Script Analysis | 3 |
| THEATRE 211 | World Theatre and Performance | 3 |
| THEATRE 219 | UWGB Meets NYC: New York Theatre Trip | 1 |
| THEATRE 228 | Jazz Dance II | 2 |
| THEATRE 241 | Improvisation for the Theatre | 3 |
| THEATRE 250 | Dramaturgy I (Theatre Theory \& Research Methods) | 3 |
| THEATRE 261 | Tap Dance II | 1 |
| THEATRE 302 | Playwriting I | 3 |
| THEATRE 309 | Theatre History I:Greek to 19th Century | 3 |
| THEATRE 310 | Theatre History II: Realism to Contemporary | 3 |
| THEATRE 335 | Production Practicum: Crews | 1 |
| THEATRE 336 | Production Practicum: Performance | 1 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| THEATRE 340 | Dance History | 3 |
| THEATRE 364 | Musical Theatre History | 3 |

## First Year Seminar

(complete 3 credits)

## Learning Outcomes

- This class provides an "on ramp" to the University and its interdisciplinary mission. It is a content-based class that incorporates communication skills (written and oral) as part of the learning pedagogy. While the content of these courses will vary, they must all address at an introductory level:
- Interdisciplinarity
- Communication
- Information Literacy

| Code | Title |  |
| :--- | :--- | ---: |
| First Year Seminar ${ }^{\mathbf{1}}$ |  |  |
| ART 198 | First Year Seminar |  |
| AVD 198 | First Year Seminar | 3 |
| BIOLOGY 198 | First Year Seminar | 3 |
| BUS ADM 198 | First Year Seminar | 3 |
| CHEM 198 | First Year Seminar | 3 |
| COMM 198 | First Year Seminar | 3 |
| COMM SCI 198 | First Year Seminar | 3 |


| COMP SCI 198 | First Year Seminar | 3 |
| :---: | :---: | :---: |
| DJS 198 | First Year Seminar | 3 |
| EDUC 198 | First Year Seminar | 3 |
| ENGLISH 198 | First Year Seminar | 3 |
| ENGR 198 | First Year Seminar | 3 |
| ENV SCI 198 | First Year Seminar | 3 |
| EPP 198 | First Year Seminar | 3 |
| ET 198 | First Year Seminar | 3 |
| FNS 198 | First Year Seminar | 3 |
| GEOG 198 | First Year Seminar | 3 |
| GEOSCI 198 | First Year Seminar | 3 |
| HISTORY 198 | First Year Seminar | 3 |
| HUM BIOL 198 | First Year Seminar | 3 |
| HUM STUD 198 | First Year Seminar | 3 |
| INFO SCI 198 | First Year Seminar | 3 |
| MGMT 198 | First Year Seminar | 3 |
| MKTG 198 | First Year Seminar | 3 |
| MUSIC 198 | First Year Seminar | 3 |
| NUT SCI 198 | First Year Seminar | 3 |
| ORG LEAD 198 | Introduction to Leadership | 3 |
| PHILOS 198 | First Year Seminar | 3 |
| PHYSICS 198 | First Year Seminar | 3 |
| POL SCI 198 | First Year Seminar | 3 |
| PSYCH 198 | First Year Seminar | 3 |
| PUB ADM 198 | First Year Seminar | 3 |
| SPANISH 198 | First Year Seminar | 3 |
| THEATRE 198 | First Year Seminar | 3 |
| WF 198 | First Year Seminar | 3 |
| WOST 198 | First Year Seminar | 3 |

1 Occasionally other courses in the catalog are scheduled and offered with additional content to meet the learning outcomes of the first year seminar these specific class sections are eligible to meet this category

## Global Culture

(complete 3 credits)

## Learning Outcomes

- Demonstrate an understanding of and engage in informed judgments of global issues and individual and cultural differences outside the United States.
- Explore issues that cross geographic, political, economic and/or socio-cultural boundaries outside the United States.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Global Culture |  | 3 |
| ANTHRO 100 | Varieties of World Culture |  |
| ANTHRO 304 | Family, Kin, and Community | 3 |
| ANTHRO 306 | Environmental Anthropology | 3 |
| ANTHRO 320 | Myth, Ritual, Symbol and Religion | 3 |
| ARABIC 102 | Introduction to the Arabic Language II | 4 |
| ART 382 | Precolumbian Art of Mesoamerica | 3 |
| ART 383 | African Art | 3 |
| ART 384 | Asian Art | 3 |
| CHINESE 102 | Introduction to the Chinese Language II | 4 |
| ENGLISH 218 | World Literatures | 3 |


| ENGLISH 219 | World Literatures II | 3 |
| :---: | :---: | :---: |
| ENGLISH 338 | World Literatures | 3 |
| FRENCH 102 | Introduction to the French Language II | 4 |
| FRENCH 202 | Intermediate French Language II | 3 |
| FRENCH 320 | Intermediate Composition and Conversation | 3 |
| FRENCH 325 | Advanced French Conversation and Composition | 3 |
| FRENCH 329 | Representative French Authors | 3 |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis | 3 |
| GERMAN 102 | Introduction to the German Language II | 4 |
| GERMAN 202 | Intermediate German Language II | 3 |
| GERMAN 320 | Intermediate German Conversation and Composition | 3 |
| GERMAN 325 | Advanced German Conversation and Composition | 3 |
| GERMAN 329 | Representative German Authors | 3 |
| GERMAN 357 | German Cinema | 3 |
| HISTORY 103 | World Civilizations I | 3 |
| HISTORY 104 | World Civilizations II | 3 |
| HISTORY 356 | History of Modern Africa | 3 |
| HUM BIOL 217 | Human Disease and Society | 3 |
| HUM BIOL 331 | Science and Religion: Spirit of Inquiry | 3 |
| HUM BIOL 322 | Epidemiology | 3 |
| HUM STUD 100 | Living the Humanities | 3 |
| HUM STUD 326 | Non-Western Religions | 3 |
| HUM STUD 343 | International Cinema | 3 |
| HUM STUD 356 | German Culture | 3 |
| HUM STUD 360 | Globalization and Cultural Conflict | 3 |
| HUM STUD 383 | Contemporary Cultural Issues | 3 |
| HUM STUD 384 | Topics in World Cultures | 3 |
| MGMT 380 | International Business Management | 3 |
| MKTG 421 | International Marketing | 3 |
| MUS ENS 147 | World Pop Ensemble | 1 |
| MUS ENS 347 | World Pop Ensemble | 1 |
| MUSIC 362 | World Music | 3 |
| NURSING 492 | Special Topics in Nursing | 3 |
| Topic: Global Health Ethics and Human Rights |  |  |
| Topic: Global Aspects of Healthcare |  |  |
| Topic: Nursing Diagnosis Across the Globe |  |  |
| NUT SCI 250 | World Food and Population Issues | 3 |
| PHILOS 216 | Introduction to Asian Philosophy | 3 |
| PHILOS 351 | Happiness and the Good Life | 3 |
| POL SCI 100 | Global Politics and Society | 3 |
| POL SCI 351 | Comparative Politics | 3 |
| POL SCI 353 | Politics of Developing Areas | 3 |
| PSYCH 350 | Cultural Psychology | 3 |
| SOC WORK 213 | Human Trafficking | 3 |
| SOCIOL 201 | City Life and Globalization | 3 |
| SPANISH 102 | Introduction to the Spanish Language II | 4 |
| SPANISH 202 | Intermediate Spanish Language II | 3 |
| SPANISH 225 | Composition and Conversation | 3 |
| SPANISH 329 | Representative Spanish and Latin American Authors | 3 |
| THEATRE 211 | World Theatre and Performance | 3 |
| THEATRE 340 | Dance History | 3 |

One of the following will also fulfill the Global Culture Requirement:

- Completion of a second year (fourth semester) of a foreign language at the college level or any upper-level foreign language course. Courses with variable content (course numbers 498, 497, and 478) may be approved for the Global Culture Requirement by use of a special petition.
- Completion of any approved UW-Green Bay trip outside the United States (XXX-499), or study abroad programs, or student exchange programs outside the United States. Students should contact the Office of International Education (https://www.uwgb.edu/international-education/) for information on travel abroad opportunities.
- At least six months living experience outside the United States. The Associate Dean of the College of Liberal Arts and Sciences or a designee may grant a waiver of the Global Culture Requirement to students based on documented prior experience living in a foreign country.
- Students who are not residents of the United States will satisfy the requirement by residence and coursework at UW-Green Bay.


## Humanities

(complete 6 credits)

## Learning Outcomes

- Describe the Humanities' unique ways of understanding major events and movements in Western and world civilizations by critically examining a range of literary, philosophical, and other cultural texts produced by those movements.
- Articulate individual and social values within cultures and the implications of decisions made on the basis of those values.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Humanities ${ }^{1}$ |  |  |
| ENGLISH 104 | Introduction to Literature | 3 |
| ENGLISH 201 | Ethics in Writing | 3 |
| ENGLISH 206 | Women in Literature | 3 |
| ENGLISH 212 | Introduction to Creative Writing | 3 |
| ENGLISH 214 | Introduction to English Literature I | 3 |
| ENGLISH 215 | Introduction to English Literature II | 3 |
| ENGLISH 216 | Introduction to American Literature I | 3 |
| ENGLISH 217 | Introduction to American Literature II | 3 |
| ENGLISH 218 | World Literatures | 3 |
| ENGLISH 219 | World Literatures II | 3 |
| ENGLISH 228 | Introduction to Technical and Professional Writing | 3 |
| ENGLISH 236 | Multicultural American Literature | 3 |
| ENGLISH 264 | Topics in Literature | 3 |
| ENGLISH 315 | The British Novel | 3 |
| ENGLISH 333 | Literary Themes | 3 |
| ENGLISH 345 | LGBTQ Literature | 3 |
| ENGLISH 400 | English Capstone | 3 |
| ENGR 260 | Introduction to Engineering Ethics | 3 |
| FNS 210 | American Indians In Film | 3 |
| FNS 224 | First Nations and The Sacred | 3 |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions | 3 |
| FNS 374 | Wisconsin First Nations History | 3 |
| FNS 385 | First Nations Intellectual Traditions | 3 |
| FNS 391 | First Nations Studies Capstone Seminar | 3 |
| FNS 392 | First Nations Justice and Tribal Governments | 3 |
| FNS 393 | First Nations and Education Policy | 3 |
| GERMAN 358 | German Politics and Society | 3 |
| HISTORY 101 | Foundations of Western Culture I | 3 |
| HISTORY 102 | Foundations of Western Culture II | 3 |
| HISTORY 103 | World Civilizations I | 3 |
| HISTORY 104 | World Civilizations II | 3 |
| HISTORY 205 | American History to 1865 | 3 |
| HISTORY 206 | History of the United States from 1865 to the Present | 3 |


| HISTORY 207 | Introduction to African-American History | 3 |
| :---: | :---: | :---: |
| HISTORY 256 | Introductory Topics in History | 3 |
| HUM STUD 100 | Living the Humanities | 3 |
| HUM STUD 110 | Introduction to Film | 3 |
| HUM STUD 201 | Introduction to the Humanities | 3 |
| HUM STUD 351 | Interdisciplinary Themes in Humanities | 3 |
| HUM STUD 353 | Latinx Culture | 3 |
| HUM STUD 360 | Globalization and Cultural Conflict | 3 |
| HUM STUD 375 | Humanities, Business and Critical Thinking | 3 |
| HUM STUD 383 | Contemporary Cultural Issues | 3 |
| HUM STUD 384 | Topics in World Cultures | 3 |
| NURSING 350 | Professional Development I: Nursing Theory, Image and Ethics | 3 |
| PHILOS 101 | Introduction to Philosophy | 3 |
| PHILOS 102 | Contemporary Ethical Issues | 3 |
| PHILOS 103 | Logic and Reasoning | 3 |
| PHILOS 105 | Is Morality for Sale? | 3 |
| PHILOS 107 | Philosophy of Love, Sex, and Friendship | 3 |
| PHILOS 208 | Biomedical Ethics | 3 |
| PHILOS 212 | Philosophy, Religion, and Science | 3 |
| PHILOS 213 | Ancient Philosophy | 3 |
| PHILOS 214 | Early Modern Philosophy | 3 |
| PHILOS 216 | Introduction to Asian Philosophy | 3 |
| PHILOS 217 | Introduction to the Philosophy of Religion | 3 |
| PHILOS 220 | Environmental Ethics | 3 |
| PHILOS 227 | Business Ethics | 3 |
| PHILOS 351 | Happiness and the Good Life | 3 |
| PHILOS 401 | Plato and Aristotle | 3 |
| SOCIOL 238 | Sociological Perspectives on Gender | 3 |
| SOC WORK 307 | Ethics in Practice | 3 |
| SPANISH 224 | Heritage Language and Culture | 3 |
| THEATRE 200 | Script Analysis | 3 |
| THEATRE 250 | Dramaturgy I (Theatre Theory \& Research Methods) | 3 |
| THEATRE 302 | Playwriting I | 3 |
| WOST 102 | Women's Voices | 3 |
| WOST 203 | Gender in Popular Culture | 3 |
| WOST 247 | Latin American and Latina Women | 3 |

1 Complete two courses ( 6 credits) in at least two different course prefixes

## Natural Sciences

(complete 3 credits)

## Learning Outcomes

- Explain central principles and theories of physical sciences.
- Describe the inquiry process through which the sciences approach the development of understanding of the physical world.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Natural Sciences |  |  |
| CHEM 108 | Survey of General, Organic and Biochemistry |  |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 212 | Principles of Chemistry II | 4 |
| ENV SCI 102 | Introduction to Environmental Sciences | 3 |


| ENV SCI 303 | Environmental Sustainability | 3 |
| :--- | :--- | :--- |
| EPP 103 | Environment and Society Lab | 1 |
| ET 206 | Chemistry for Engineers | 4 |
| GEOG 209 | Landscapes of North America | 3 |
| GEOSCI 102 | Natural Hazards | 3 |
| GEOSCI 202 | Physical Geology | 4 |
| GEOSCI 222 | Ocean of Air: Weather and Climate | 3 |
| INFO SCI 201 | Information, Computers and Society | 3 |
| PHYSICS 103 | Fundamentals of Physics I | 4 |
| PHYSICS 141 | Astronomy | 3 |
| PHYSICS 143 | The Solar System | 3 |
| PHYSICS 144 | Stars, Galaxies and the Universe | 3 |
| PHYSICS 180 | Concepts of Physics | 3 |
| PHYSICS 201 | Principles of Physics I | 4 |

## Quantitative Literacy

(complete 3 credits)

## Learning Outcomes

- Demonstrate competence in performing quantitative operations.
- Apply analytical concepts and operations to interpret models and aid in problem-solving, decision-making, and other real-world problems.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Quantitative Literacy |  |  |
| ACCTG 201 | Principles of Financial Accounting | 3 |
| BUSAN 220 | Introduction to Business Statistics | 3 |
| BUSAN 320 | Advanced Business Statistics | 3 |
| BUSAN 370 | Data Science for Managers | 3 |
| BUSAN 453 | Machine Learning for Business Analytics | 3 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 212 | Principles of Chemistry II | 4 |
| ECON 203 | Micro Economic Analysis | 3 |
| ECON 208 | Economics WTCS Bridge | 3 |
| ECON 210 | Quantitative Methods for Economics and Business | 3 |
| EDUC 281 | Conceptual Foundations of Elementary Mathematics I | 3 |
| EPP 152 | Introduction to Graphic Display and Planning | 3 |
| GEOG 210 | Human Geography and Concepts | 3 |
| HIMT 350 | Statistics for Healthcare | 3 |
| MATH 100 | Math Appreciation | 3 |
| MATH 102 | Quantitative Reasoning | 3 |
| MATH 104 | Precalculus | 4 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 260 | Introductory Statistics | 4 |
| ORG LEAD 346 | Organizational Research and Statistics | 3 |
| PHILOS 103 | Logic and Reasoning | 3 |
| PHYSICS 103 | Fundamentals of Physics I | 4 |
| PHYSICS 201 | Principles of Physics I | 4 |
| POL SCI 318 | Political Behavior | 3 |
| PSYCH 205 | Social Science Statistics | 4 |
| PSYCH 300 | Research Methods in Psychology | 4 |
| SOCIOL 325 | Research Methods in Sociology \& Anthropology | 3 |
| THEATRE 221 | Stagecraft | 4 |


| THEATRE 223 | Computer Applications for Theatre | 3 |
| :--- | :--- | :--- |
| THEATRE 323 | Stage Lighting | 3 |
| MUSIC 116 | Ear Training and Sight Singing II | 7 |
| \& MUSIC 253 | and Music Theory III |  |
| \& MUSIC 254 | and Music Theory IV |  |

## Social Sciences

(complete 6 credits)

## Learning Outcomes

- Explain how social scientists practice critical thinking.
- Demonstrate the ability to address problems using tools and methods exemplary of two different social sciences.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Social Sciences ${ }^{1}$ |  |  |
| ANTHRO 100 | Varieties of World Culture | 3 |
| ANTHRO 150 | Food Culture \& Identity | 3 |
| ANTHRO 304 | Family, Kin, and Community | 3 |
| ANTHRO 306 | Environmental Anthropology | 3 |
| ANTHRO 314 | Cultures of the World | 3 |
| ANTHRO 320 | Myth, Ritual, Symbol and Religion | 3 |
| ANTHRO 348 | Economic Anthropology | 3 |
| BUS ADM 202 | Introduction to Business | 3 |
| BUS ADM 206 | Law and the Individual | 3 |
| COMM 317 | How to Create Great Social Media Content | 3 |
| COMM SCI 145 | 21st Century Citizen | 3 |
| COMM SCI 146 | GPS Spring Seminar | 3 |
| COMM SCI 200 | Civic Scholars Practicum | 3 |
| COMM SCI 301 | Foundations for Social Research | 3 |
| DJS 101 | Introduction to Democracy and Justice Studies | 3 |
| DJS 200 | Mentoring for Equity and Inclusion | 3 |
| DJS 204 | Freedom and Social Control | 3 |
| DJS 221 | Law and Equality in Historical Perspective | 3 |
| DJS 330 | Prison and Society | 3 |
| ECON 102 | Economics of the Modern World | 3 |
| ECON 202 | Macro Economic Analysis | 3 |
| ECON 203 | Micro Economic Analysis | 3 |
| ECON 208 | Economics WTCS Bridge | 3 |
| EDUC 206 | Culturally Responsive Teaching and Learning | 3 |
| EPP 102 | Environment and Society | 3 |
| EPP 254 | Introduction to Designing with Communities and Neighborhoods | 3 |
| EPP 323 | Sustainable Land Use | 3 |
| EPP 324 | Transitioning to Sustainable Communities | 3 |
| FIN 282 | Personal Financial Planning | 3 |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis | 3 |
| GEOG 210 | Human Geography and Concepts | 3 |
| GEOG 211 | American Ethnic Minorities | 3 |
| GEOG 321 | Coastal Resources Policy and Management | 3 |
| GEOG 341 | Urban Geography | 3 |
| GEOG 370 | Geography of South America | 3 |
| ORG LEAD 301 | Rising Leadership | 3 |
| ORG LEAD 302 | Gender \& Equity in Organizational Leadership | 3 |
| ORG LEAD 497 | Internship | 1-6 |


| POL SCI 100 | Global Politics and Society | 3 |
| :---: | :---: | :---: |
| POL SCI 101 | American Government and Politics | 3 |
| POL SCI 102 | Introduction to Politics | 3 |
| POL SCI 353 | Politics of Developing Areas | 3 |
| POL SCI 361 | Immigration and Immigration Policy | 3 |
| POL SCI 380 | Global Environmental Politics and Policy | 3 |
| POL SCI 480 | Senior Seminar/Capstone in Political Science | 3 |
| PSYCH 102 | Introduction to Psychology | 3 |
| PSYCH 203 | Introduction to Lifespan Development | 3 |
| PUB ADM 202 | Introduction to Public Policy | 3 |
| PUB ADM 215 | Introduction to Public Administration | 3 |
| PUB ADM 225 | Introduction to the Nonprofit Sector | 3 |
| PUB ADM 301 | Environmental Politics and Policy | 3 |
| PUB ADM 315 | Public and Non-Profit Management | 3 |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving | 3 |
| PUB ADM 345 | Human Resource and Risk Management | 3 |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits | 3 |
| PUB ADM 428 | Public and Nonprofit Program Evaluation | 3 |
| SOC WORK 202 | Introduction to Social Services | 3 |
| SOC WORK 250 | You and Your Future: Living and Working in an Aging Society | 3 |
| SOC WORK 311 | Foundations of Social Welfare Policy | 3 |
| SOC WORK 375 | Family Principles and Patterns | 3 |
| SOCIOL 100 | Introduction to Urban Studies | 3 |
| SOCIOL 101 | Introduction to Sociology | 3 |
| SOCIOL 130 | Contemporary Social Problems | 3 |
| SOCIOL 160 | Sociology of Human Sexuality | 3 |
| SOCIOL 201 | City Life and Globalization | 3 |
| SOCIOL 203 | Ethnic and Racial Identities | 3 |
| SOCIOL 220 | Sociology of Marriage and the Family | 3 |
| SOCIOL 235 | Introduction to Social Psychology: A Sociological Perspective | 3 |
| SOCIOL 238 | Sociological Perspectives on Gender | 3 |
| SOCIOL 246 | Juvenile Delinquency | 3 |
| SOCIOL 316 | Criminal Justice Systems, Administration, and Processes | 3 |
| SOCIOL 324 | Latino Communities in the United States | 3 |
| SOCIOL 357 | Environmental Justice | 3 |
| WOST 201 | Introduction to LGBTQ Studies | 3 |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies | 3 |

1 Complete two courses ( 6 credits) in at least two different course prefixes

## Sustainability Perspective

(complete 3 credits)

## Learning Outcomes

- Think critically regarding the array and implications of alternative sustainability definitions and describe why actions to achieve sustainability are complex and controversial.
- Discuss sustainability within the context of ethical decision-making and engage in informed judgments about environmental problems as socially responsible citizens.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Sustainability Perspective |  |  |
| ANTHRO 306 | Environmental Anthropology | 3 |
| BIOLOGY 469 | Conservation Biology | 4 |


| BUS ADM 201 | Principles of Sustainability in Business | 3 |
| :---: | :---: | :---: |
| CHEM 168 | Sustainability Chemistry | 3 |
| DESIGN 131 | Introduction to Design and Culture | 3 |
| ECON 305 | Environmental Economics | 3 |
| ENGLISH 307 | Writing the Environment Workshop | 3 |
| ENGLISH 333 | Literary Themes | 3 |
| ENGR 202 | An Introduction to Smart Cities | 3 |
| ENV SCI 260 | Energy and Society | 3 |
| ENV SCI 301 | Radioactivity: Past, Present, and Future | 3 |
| ENV SCI 303 | Environmental Sustainability | 3 |
| ENV SCI 460 | Resource Management Strategy | 3 |
| EPP 102 | Environment and Society | 3 |
| EPP 103 | Environment and Society Lab | 1 |
| EPP 254 | Introduction to Designing with Communities and Neighborhoods | 3 |
| EPP 323 | Sustainable Land Use | 3 |
| EPP 324 | Transitioning to Sustainable Communities | 3 |
| ET 201 | Introduction to Environmental Engineering | 3 |
| ET 420 | Lean Processes | 3 |
| FNS 210 | American Indians In Film | 3 |
| FNS 224 | First Nations and The Sacred | 3 |
| FNS 301 | Oneida Language I | 3 |
| FNS 302 | Oneida Language II | 3 |
| FNS 303 | Oneida Language III | 3 |
| FNS 304 | Oneida Language IV | 3 |
| FNS 305 | Oneida Language V | 3 |
| FNS 306 | Oneida Language VI | 3 |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions | 3 |
| FNS 374 | Wisconsin First Nations History | 3 |
| FNS 385 | First Nations Intellectual Traditions | 3 |
| FNS 391 | First Nations Studies Capstone Seminar | 3 |
| FNS 392 | First Nations Justice and Tribal Governments | 3 |
| FNS 393 | First Nations and Education Policy | 3 |
| GEOG 209 | Landscapes of North America | 3 |
| GEOG 321 | Coastal Resources Policy and Management | 3 |
| HISTORY 220 | American Environmental History | 3 |
| HUM BIOL 205 | Biotechnology and Human Values | 3 |
| HUM BIOL 206 | Fertility, Reproduction, and Family Planning | 3 |
| HUM BIOL 215 | Personal Health and Wellness | 3 |
| HUM BIOL 217 | Human Disease and Society | 3 |
| HUM BIOL 250 | Fitness for Life | 3 |
| HUM BIOL 322 | Epidemiology | 3 |
| HUM BIOL 405 | Biotechnology and Ethics | 3 |
| HUM STUD 370 | Sustainability through the Humanities | 3 |
| NURSING 390 | Leadership for Sustainable Healthcare: Health Disparities, Health Equity, \& the Nursing Profession | 3 |
| NUT SCI 250 | World Food and Population Issues | 3 |
| PHILOS 208 | Biomedical Ethics | 3 |
| PHILOS 220 | Environmental Ethics | 3 |
| POL SCI 380 | Global Environmental Politics and Policy | 3 |
| PSYCH 380 | Conservation Psychology | 3 |
| SOC WORK 204 | Sustainability and Social Problems | 3 |
| SOCIOL 216 | Native American Landscapes:Imagined and Lived Spaces | 3 |

## Graduation Requirements

- AAS Degree (p. 60)
- Bachelor Degree (p. 61)


# Associate of Arts \& Sciences Degree 

## Minimum Requirements

## Degree Credits

60 degree credits

## Grade Point Average

Students must have a cumulative 2.0 grade point average on UW-Green Bay courses

## General Education

36 credits of breadth (see General Education Program) (p. 47)

## Writing Competency

$0-6$ credits (see Writing Competency) (p. 62)

## Math Competency

$0-3$ credits (see Math Competency) (p. 62)

## Writing Emphasis Requirement: 2 courses

All students must complete two Writing Emphasis courses. Courses taken to fulfill the Writing Emphasis may also be used, simultaneously, to fulfill any other requirements. (see Writing Emphasis) (p. 62)

## Area of Study

12 credits defined by an academic adviser (see Area of Study) (p. 60)

## Lab Science

At least one science course must be completed with a laboratory (see Laboratory Science) (p. 61)

## Residency

15 credits minimum must be earned at UW-Green Bay
Students should contact the Academic Advising Office (http://www.uwgb.edu/advising/) as early as possible for assistance in planning their programs to assure that all degree requirements are fulfilled.

## Area of Study

## Students earning the AAS degree must complete one 12 credit Area of Study:

1. Business: Any 12 credits of ACCTG, BUS ADM, ECON, FIN, HRM, MKTG, MGMT, and/or SCM.
2. Music and Performing Arts: Any 12 credits of MUSIC, MUS APP, MUS ENS, or THEATRE
3. Fine Arts: Any 12 credits of ART, ARTS MGT, or DESIGN
4. Natural Sciences: Any 12 credits of BIOLOGY, CHEM, GEOSCI, ENV SCI, or PHYSICS
5. Human Biology: Any 12 credits of BIOLOGY, CHEM, HUM BIOL, or NUT SCI
6. Social Sciences (Individual focus within social sciences): Any 12 credits of ANTHRO, COMM SCI, EDUC 206 , PSYCH, SOC WORK 250, SOCIOL, or WOST (Note: Only these specific Education and Social Work courses have been approved)
7. Community Sciences (community focus within social sciences): Any 12 credits of ANTHRO, COMM SCI, ECON, GEOG, HISTORY, POL SCI, PU EN AF, DJS, SOCIOL or UR RE ST
8. Humanities: Any 12 credits of ENGLISH, FNS, HISTORY, HUM STUD, PHILOS, or foreign language (The foreign language credits should not include credits given retroactively)
9. Computing and Information Sciences: Any 12 credits of COMP SCI or INFO SCI
10. Communication: Any 12 credits of COMM
11. Individualized Area of Emphasis: Any 12 credits of coursework reflecting a specific area of interest or study, chosen by the student, and approved by an advisor.

## Laboratory Science Requirement

Students seeking an Associates of Arts \& Sciences degree (AAS) must complete at least one science laboratory course.

| Code | Title | Credits |
| :--- | :--- | ---: |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution | 1 |
| BIOLOGY 469 | Conservation Biology |  |
| CHEM 109 | Survey of General, Organic, and Biochemistry Laboratory |  |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| ENV SCI 103 | Introduction to Environmental Sciences Lab | 1 |
| EPP 103 | Environment and Society Lab | 1 |
| ET 206 | Chemistry for Engineers | 1 |
| GEOSCI 202 | Physical Geology | 4 |
| GEOSCI 223 | Ocean of Air: Weather and Climate Laboratory | 4 |
| PHYSICS 142 | Observational Astronomy | 1 |
| PHYSICS 203 | Introductory Physics Lab I | 1 |
| WATER 202 | Introduction to Water Science Laboratory | 1 |

## Bachelor Degree

## Minimum Requirements

## Degree Credits

120 degree credits

## Grade Point Average

Students must have a cumulative 2.0 grade point average on UW-Green Bay courses and a 2.0 grade point average for each major and/or minor. Certain majors, minors, and professional programs may have higher minimum grade point graduation requirements.

## General Education

36 credits of breadth (see General Education Program) (p. 47)

## Writing Competency

$0-6$ credits (see Writing Competency) (p. 62)

## Math Competency

$0-3$ credits (see Math Competency) (p. 62)

## Capstone

1 course (see Capstone Requirement) (p. 45)

## Ethnic Studies

3 credits (UW System requirement satisified by General Education, Ethnic Studies Perspective (p. 48) course)

## Writing Emphasis Requirement: 4 courses

All students must complete four Writing Emphasis courses. At least two of these courses must be at the upper level. Courses taken to fulfill the Writing Emphasis may also be used, simultaneously, to fulfill any other requirements. (see Writing Emphasis) (p. 62)

## Major

30 credits minimum

## Residency

30 credits minimum must be earned at UW-Green Bay (see Degree Residency Requirement) (p. 26)

## Additional Options

## Minor

18 credits minimum

## Certificate

12 credits minimum

## Graduation Honors

(see All-University Academic Honors) (p. 21)
If there are any questions regarding multiple majors or earning a subsequent degree please contact the Registrar's office (registrar@uwgb.edu) for further information.

## Math Competency

Students should complete the UW-Green Bay Mathematics Competency before the completion of 60 earned and in progress credits. Students who fail to complete the Mathematics Competency by this point will not be allowed to register for mathematics classes, or for courses with collegelevel mathematics as a prerequisite until proof is submitted that the competency is completed. Students who have not taken the WMPT and have not satisfactorily completed or transferred in a college-level mathematics course must enroll in MATH 94, MATH 100, BUSAN 220, or PSYCH 205 depending on academic program. Students should consult with their advisor to determine the appropriate course.
see also University Testing Requirements (p. 40)

## Writing Competency

WF 100 (or transferred equivalent) is required for students who earn a 24 or lower ACT English score or a 31 or lower SAT Reading score. Students should complete WF 100 by the end of their second semester at UWGB.

WF 105 or WF $200^{1}$ or ENGR $236^{2}$ (or transferred equivalent) is required unless students have earned a 32 or higher ACT English score or a 39 or higher SAT Reading score. Students should complete WF 105 or WF 200 by the end of their third semester at UWGB. The pre-requisite course for this requirement is WF 100 or equivalent.

1 Students majoring in programs in the Cofrin School of Business take WF 200 in place of WF 105.
2 Students majoring in Environmental Engineering Technology, Electrical Engineering Technology, Mechanical Engineering Technology, Electrical Engineering, Mechanical Engineering or Computer Science take ENGR 236 in place of WF 105.
see also University Testing Requirements (p. 40)

## Writing Emphasis

Writing Emphasis courses provide students with the opportunity to practice and improve their writing skills across the curriculum. Associate degree students must complete two writing emphasis courses. Bachelor degree students must complete four writing emphasis courses, at least two of these courses must be at the upper level. Courses taken to fulfill the Writing Emphasis (p. 38) may also be used, simultaneously, to fulfill any other requirements, including general education breadth requirements and requirements in the major, minor, or certificate programs.

## Learning Outcomes for Writing Emphasis Courses

- Students will state important points and support them with illuminating details and examples.
- Students will demonstrate an ability to write in clear and lucid academic prose and to properly employ academic conventions (writing style, transitions, source integration, etc.).
- Students will demonstrate an advanced understanding of academic citation (if required by assignment).
- Students will demonstrate the ability to analyze logically and consistently and to draw meaningful implications.
- Students will demonstrate a clear and strong command of English grammar with regard to correctness, sentence structuring, and proper punctuation.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Writing Emphasis |  |  |
| ACCTG 412 | Auditing Standards and Procedures | 4 |
| ACCTG 414 | Cost Accounting | 4 |
| ACCTG 460 | Accounting Capstone | 3 |
| ANTHRO 304 | Family, Kin, and Community | 3 |
| ANTHRO 306 | Environmental Anthropology | 3 |
| ANTHRO 320 | Myth, Ritual, Symbol and Religion | 3 |
| ART 198 | First Year Seminar | 3 |
| ART 344 | Photography III | 3 |
| ART 373 | Intermediate Printmaking | 3 |
| ART 379 | Women, Art and Image | 3 |
| ART 443 | Advanced Problems in Photography | 3 |
| BIOLOGY 198 | First Year Seminar | 3 |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution | 1 |
| BIOLOGY 304 | Genetics Laboratory | 1 |
| BIOLOGY 306 | Principles of Ecology | 4 |
| BIOLOGY 308 | Cell Biology Laboratory | 1 |
| BIOLOGY 311 | Plant Physiology | 4 |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates | 4 |
| BIOLOGY 402 | Advanced Microbiology | 4 |
| BIOLOGY 410 | Developmental Biology | 3 |
| BIOLOGY 411 | Developmental Biology Laboratory | 1 |
| BIOLOGY 469 | Conservation Biology | 4 |
| BUSAN 370 | Data Science for Managers | 3 |
| CHEM 198 | First Year Seminar | 3 |
| CHEM 322 | Thermodynamics and Kinetics Laboratory | 1 |
| CHEM 323 | Structure of Matter Laboratory | 1 |
| CHEM 325 | Biophysical Chemistry Laboratory | 1 |
| COMM 185 | Business and Media Writing | 3 |
| COMM 198 | First Year Seminar | 3 |
| COMM 302 | News Reporting and Writing | 3 |
| COMM 305 | Principles of Public Relations/Corporate Communications | 3 |
| COMM 309 | Mass Media Advertising | 3 |
| COMM 333 | Persuasion and Argumentation | 3 |
| COMM 336 | Theories of the Interview | 3 |
| COMM 390 | Sports Writing, Promotion, and Public Relations | 3 |
| COMM 425 | Digital Journalism | 3 |
| COMM 445 | Human Communication Theory | 3 |
| COMM SCI 198 | First Year Seminar | 3 |
| COMP SCI 353 | Computer Architecture and Organization | 3 |
| COMP SCI 358 | Data Communication and Computer Networks | 3 |
| COMP SCI 372 | Software Engineering | 3 |
| COMP SCI 490 | Capstone Essay in Computer Science | 3 |


| COMP SCI 497 | Internship | 3 |
| :---: | :---: | :---: |
| DJS 198 | First Year Seminar | 3 |
| DJS 348 | Gender and the Law | 3 |
| DJS 361 | Historical Perspectives on American Democracy | 3 |
| DJS 362 | Power and Change in America | 3 |
| DJS 363 | Topics in Democracy and Justice | 3 |
| DJS 461 | Social and Political Criticism | 3 |
| DJS 470 | Senior Seminar in Democracy and Justice Studies | 3 |
| ECON 305 | Environmental Economics | 3 |
| ECON 310 | Introduction to Econometrics | 3 |
| ECON 340 | Economics of Land Use | 3 |
| ECON 403 | International Economics and Finance | 3 |
| EDUC 198 | First Year Seminar | 3 |
| EDUC 206 | Culturally Responsive Teaching and Learning | 3 |
| EDUC 307 | Teaching Reading in the Elementary and Middle Schools | 3 |
| EDUC 309 | Teaching Language Arts in the Elementary and Middle Schools | 3 |
| EDUC 319 | Adolescent Literature in Middle and Secondary School Reading | 3 |
| EDUC 352 | Social and Family Influences on Development and Learning | 3 |
| EDUC 361 | Introduction to the Art and Science of Teaching | 3 |
| EDUC 422 | Reading in the Content Areas | 3 |
| EDUC 441 | Infants \& Toddlers: History, Philosophy \& Current Programs | 3 |
| EDUC 452 | Principles of Middle Level Education | 3 |
| ENGLISH 104 | Introduction to Literature | 3 |
| ENGLISH 201 | Ethics in Writing | 3 |
| ENGLISH 200 | Arts Entrepreneurship | 3 |
| ENGLISH 206 | Women in Literature | 3 |
| ENGLISH 212 | Introduction to Creative Writing | 3 |
| ENGLISH 214 | Introduction to English Literature I | 3 |
| ENGLISH 216 | Introduction to American Literature I | 3 |
| ENGLISH 217 | Introduction to American Literature II | 3 |
| ENGLISH 218 | World Literatures | 3 |
| ENGLISH 219 | World Literatures II | 3 |
| ENGLISH 226 | Grammar | 3 |
| ENGLISH 227 | Copyediting and Workflow | 3 |
| ENGLISH 228 | Introduction to Technical and Professional Writing | 3 |
| ENGLISH 236 | Multicultural American Literature | 3 |
| ENGLISH 264 | Topics in Literature | 3 |
| ENGLISH 290 | Literary Studies | 3 |
| ENGLISH 301 | Intermediate Creative Writing | 3 |
| ENGLISH 302 | Short Fiction Writing Workshop | 3 |
| ENGLISH 303 | Advanced Poetry Writing Workshop | 3 |
| ENGLISH 304 | Creative Nonfiction Writing | 3 |
| ENGLISH 305 | Novel Writing Workshop | 4 |
| ENGLISH 306 | Novel Revision Workshop | 4 |
| ENGLISH 307 | Writing the Environment Workshop | 3 |
| ENGLISH 309 | Co-Creative Writing Workshop | 3 |
| ENGLISH 310 | Topics in Game Writing | 3 |
| ENGLISH 312 | Topics in Creative Writing | 3 |
| ENGLISH 314 | Topics in Professional \& Technical Writing | 3 |
| ENGLISH 315 | The British Novel | 3 |
| ENGLISH 316 | The English Novel: 1850's to the Present | 3 |
| ENGLISH 320 | Major Drama | 3 |


| ENGLISH 322 | Major Poetry | 3 |
| :---: | :---: | :---: |
| ENGLISH 323 | Topics in Literary Criticism | 3 |
| ENGLISH 327 | Digital Platforms for Publishing | 3 |
| ENGLISH 331 | Major American Prose Fiction | 3 |
| ENGLISH 333 | Literary Themes | 3 |
| ENGLISH 335 | Literary Eras | 3 |
| ENGLISH 336 | American Ethnic Literature | 3 |
| ENGLISH 338 | World Literatures | 3 |
| ENGLISH 340 | History of the English Language | 3 |
| ENGLISH 344 | African American Literature | 3 |
| ENGLISH 345 | LGBTQ Literature | 3 |
| ENGLISH 364 | Literary Topics | 3 |
| ENGLISH 400 | English Capstone | 3 |
| ENGLISH 410 | Live Video Streaming Practicum | 3 |
| ENGLISH 431 | Shakespeare | 3 |
| ENGLISH 436 | Major Author(s) | 3 |
| ENGR 198 | First Year Seminar | 3 |
| ENGR 236 | Technical Writing | 3 |
| ENGR 322 | Engineering Measurements Lab | 1 |
| ENGR 460 | Senior Design | 3 |
| ENGR 462 | Senior Design Project | 3 |
| ENTRP 481 | Small Business Management \& Family Entrepreneurship | 3 |
| ENV SCI 198 | First Year Seminar | 3 |
| ENV SCI 330 | Hydrology | 3 |
| ENV SCI 339 | Scientific Writing | 3 |
| ENV SCI 460 | Resource Management Strategy | 3 |
| ENV SCI 467 | Capstone in Environmental Science | 4 |
| EPP 323 | Sustainable Land Use | 3 |
| EPP 412 | Urban Planning | 3 |
| ET 330 | Hydrology | 3 |
| ET 390 | Mechatronics | 3 |
| ET 400 | Co-op/Internship in Engineering Technology | 3 |
| ET 410 | Capstone Project | 3 |
| FIN 345 | Risk Management and Insurance | 3 |
| FIN 415 | Employee Benefits and Retirement Planning | 3 |
| FIN 442 | Principles of Investment | 3 |
| FIN 480 | Student Managed Investment Fund | 3 |
| FNS 198 | First Year Seminar | 3 |
| FNS 336 | American Ethnic Literature | 3 |
| FNS 395 | Special Topics in First Nations Studies | 3 |
| FRENCH 320 | Intermediate Composition and Conversation | 3 |
| FRENCH 325 | Advanced French Conversation and Composition | 3 |
| GEOG 370 | Geography of South America | 3 |
| GEOG 470 | Glacial Geology \& Landscapes | 3 |
| GEOSCI 198 | First Year Seminar | 3 |
| GEOSCI 203 | Earth System History | 3 |
| GEOSCI 470 | Glacial Geology \& Landscapes | 3 |
| GEOSCI 492 | Special Topics in Geoscience | 1-4 |
| GERMAN 325 | Advanced German Conversation and Composition | 3 |
| GERMAN 357 | German Cinema | 3 |
| HIMT 420 | Healthcare Systems: Project Management | 3 |
| HISTORY 207 | Introduction to African-American History | 3 |


| HISTORY 220 | American Environmental History | 3 |
| :---: | :---: | :---: |
| HISTORY 256 | Introductory Topics in History | 3 |
| HISTORY 301 | The Middle Ages | 3 |
| HISTORY 302 | Problems in American Thought | 3 |
| HISTORY 309 | United States Immigration History | 3 |
| HISTORY 310 | American Colonial History | 3 |
| HISTORY 312 | The Early American Republic | 3 |
| HISTORY 326 | Global Environmental History | 3 |
| HISTORY 332 | Europe in the 19th Century | 3 |
| HISTORY 333 | Europe in the 20th Century | 3 |
| HISTORY 334 | Contemporary Europe | 3 |
| HISTORY 353 | The U.S. and the World | 3 |
| HISTORY 370 | History of Sexuality in the U.S. | 3 |
| HISTORY 380 | U.S. Women's History | 3 |
| HISTORY 402 | America in the Twentieth Century | 3 |
| HISTORY 421 | Topics in Medieval History | 3 |
| HISTORY 422 | Topics in Early Modern European History | 3 |
| HISTORY 423 | Topics in Modern European History | 3 |
| HISTORY 424 | Nazi Germany | 3 |
| HISTORY 425 | Topics in U.S. History | 3 |
| HISTORY 470 | Studies in Comparative History | 3 |
| HISTORY 480 | Seminar in History | 3 |
| HRM 460 | Employee Development and Training | 3 |
| HRM 466 | Employment Law | 3 |
| HUM BIOL 198 | First Year Seminar | 3 |
| HUM BIOL 202 | Ethnic Minorities in Science | 3 |
| HUM BIOL 205 | Biotechnology and Human Values | 3 |
| HUM BIOL 310 | Human Genetics | 3 |
| HUM BIOL 331 | Science and Religion: Spirit of Inquiry | 3 |
| HUM BIOL 360 | Exercise Physiology | 3 |
| HUM BIOL 361 | Human Physiology Lab - Exercise and Metabolism | 1 |
| HUM BIOL 403 | Human Physiology Laboratory | 1 |
| HUM BIOL 405 | Biotechnology and Ethics | 3 |
| HUM BIOL 422 | Immunology | 3 |
| HUM BIOL 444 | Endocrinology | 3 |
| HUM STUD 160 | Introduction to Language | 3 |
| HUM STUD 198 | First Year Seminar | 3 |
| HUM STUD 210 | Film and Society | 3 |
| HUM STUD 213 | Ethnic Diversity and Human Values | 3 |
| HUM STUD 319 | Second Language Acquisition \& Assessment | 3 |
| HUM STUD 321 | Sociolinguistics | 3 |
| HUM STUD 333 | Utopia and Dystopia | 3 |
| HUM STUD 334 | The Ancient World | 3 |
| HUM STUD 335 | The Medieval World | 3 |
| HUM STUD 336 | The Renaissance | 3 |
| HUM STUD 337 | The Age of Reason | 3 |
| HUM STUD 351 | Interdisciplinary Themes in Humanities | 3 |
| HUM STUD 352 | Literatures in Translation | 3 |
| HUM STUD 353 | Latinx Culture | 3 |
| HUM STUD 360 | Globalization and Cultural Conflict | 3 |
| HUM STUD 375 | Humanities, Business and Critical Thinking | 3 |
| HUM STUD 382 | Romanticism to Modernism | 3 |


| HUM STUD 383 | Contemporary Cultural Issues | 3 |
| :---: | :---: | :---: |
| HUM STUD 384 | Topics in World Cultures | 3 |
| INFO SCI 198 | First Year Seminar | 3 |
| INFO SCI 201 | Information, Computers and Society | 3 |
| INFO SCI 341 | Survey of Gaming and Interactive Media | 3 |
| MATH 314 | Proofs in Number Theory and Topology | 3 |
| MATH 329 | Applied Regression Analysis | 4 |
| MGMT 472 | Leadership Development | 3 |
| MGMT 479 | Organizational Culture \& Design | 3 |
| MKTG 421 | International Marketing | 3 |
| MKTG 426 | Marketing Strategy | 3 |
| MKTG 428 | Consumer Behavior | 3 |
| MUSIC 198 | First Year Seminar | 3 |
| MUSIC 353 | Music History I | 3 |
| MUSIC 423 | Seminar in Music Literature | 3 |
| NURSING 198 | First Year Seminar | 3 |
| NURSING 370 | Evidence-Based Practice: Translating Research to Practice | 2 |
| NURSING 390 | Leadership for Sustainable Healthcare: Health Disparities, Health Equity, \& the Nursing Profession | 3 |
| NURSING 407 | Foundations of Professional Nursing Practice | 3 |
| NURSING 480 | Leadership: Nursing in an Evolving Healthcare System | 3 |
| NURSING 490 | Synthesis for Nursing Practice | 3 |
| NUT SCI 198 | First Year Seminar | 3 |
| NUT SCI 421 | Community and Public Health Nutrition | 3 |
| ORG LEAD 198 | Introduction to Leadership | 3 |
| ORG LEAD 301 | Rising Leadership | 3 |
| ORG LEAD 302 | Gender \& Equity in Organizational Leadership | 3 |
| ORG LEAD 348 | Organizational Behavior Across Sectors | 3 |
| ORG LEAD 400 | Organizational Leadership Capstone | 3 |
| PHILOS 208 | Biomedical Ethics | 3 |
| PHILOS 212 | Philosophy, Religion, and Science | 3 |
| PHILOS 213 | Ancient Philosophy | 3 |
| PHILOS 220 | Environmental Ethics | 3 |
| PHILOS 227 | Business Ethics | 3 |
| PHILOS 308 | Philosophy and the Sciences | 3 |
| PHILOS 324 | Contemporary Philosophy | 3 |
| PHILOS 351 | Happiness and the Good Life | 3 |
| PHILOS 420 | Metaphysics | 3 |
| PHYSICS 198 | First Year Seminar | 3 |
| POL SCI 198 | First Year Seminar | 3 |
| POL SCI 306 | Regulatory Policy and Administration | 3 |
| POL SCI 310 | The American Presidency | 3 |
| POL SCI 316 | Congress: Politics and Policy | 3 |
| POL SCI 318 | Political Behavior | 3 |
| POL SCI 378 | Environmental Law | 3 |
| POL SCI 340 | Political Theory | 3 |
| PSYCH 198 | First Year Seminar | 3 |
| PSYCH 300 | Research Methods in Psychology | 4 |
| PSYCH 344 | Dying, Death, and Loss | 3 |
| PSYCH 401 | Psychology of Women and Gender | 3 |
| PSYCH 443 | Spirituality and Development | 3 |
| PSYCH 490 | Capstone in Psychology | 3 |
| PSYCH 492 | Applied Research Lab | 3 |


| PUB ADM 198 | First Year Seminar | 3 |
| :---: | :---: | :---: |
| PUB ADM 301 | Environmental Politics and Policy | 3 |
| PUB ADM 306 | Regulatory Policy and Administration | 3 |
| PUB ADM 315 | Public and Non-Profit Management | 3 |
| PUB ADM 322 | Environmental Planning | 3 |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving | 3 |
| PUB ADM 344 | Leadership in Organizations | 3 |
| PUB ADM 408 | Public Policy Analysis | 3 |
| SCM 384 | Supply Chain Management | 3 |
| SOC WORK 198 | First Year Seminar | 3 |
| SOC WORK 411 | Micro Methods I | 3 |
| SOCIOL 308 | Sociology of the Family | 3 |
| SOCIOL 310 | Urban Sociology | 3 |
| SOCIOL 324 | Latino Communities in the United States | 3 |
| SOCIOL 357 | Environmental Justice | 3 |
| SPANISH 198 | First Year Seminar | 3 |
| SPANISH 224 | Heritage Language and Culture | 3 |
| SPANISH 225 | Composition and Conversation | 3 |
| SPANISH 329 | Representative Spanish and Latin American Authors | 3 |
| SPANISH 355 | Spanish and Latin American Cinema | 3 |
| SPANISH 465 | Special Topics | 3 |
| THEATRE 198 | First Year Seminar | 3 |
| THEATRE 200 | Script Analysis | 3 |
| THEATRE 211 | World Theatre and Performance | 3 |
| THEATRE 250 | Dramaturgy I (Theatre Theory \& Research Methods) | 3 |
| THEATRE 302 | Playwriting I | 3 |
| THEATRE 309 | Theatre History I:Greek to 19th Century | 3 |
| THEATRE 310 | Theatre History II: Realism to Contemporary | 3 |
| THEATRE 402 | Playwriting II (the Long Play) | 3 |
| THEATRE 410 | Playwrights Workshop | 3 |
| THEATRE 415 | Contemporary Playwriting Methods | 3 |
| THEATRE 450 | Dramaturgy II (Theatre Theory in Practice) | 3 |
| UR RE ST 313 | The City Through Time and Space | 3 |
| UR RE ST 342 | Community Economic Development | 3 |
| WF 105 | Research and Rhetoric | 3 |
| WF 198 | First Year Seminar | 3 |
| WF 200 | Professional Writing for Business Majors | 3 |
| WOST 198 | First Year Seminar | 3 |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies | 3 |

## Majors and Minors

Students who declare two or more majors at the same time are granted only one baccalaureate degree and receive only one diploma upon graduation. If the majors declared have different degree designations, then the student must choose which degree they want to receive. All successfully completed majors are recorded on the student's academic transcript.

## A

- Accounting (p. 70)
- Art (p. 78)
- Arts Management (p. 85)


## B

- Biology (p. 86)
- Business Administration (p. 106)

C

- Chemistry (p. 113)
- Communication (p. 124)
- Community Health Education (p. 131)
- Computer Science (p. 134)
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D

- Democracy and Justice Studies (p. 140)
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E

- Economics (p. 149)
- Education (p. 150)
- Electrical Engineering (p. 160)
- Electrical Engineering Technology (p. 164)
- English (p. 167)
- Entrepreneurship (p. 189)
- Environmental Engineering Technology (p. 173)
- Environmental Policy and Planning (p. 177)
- Environmental Science (p. 182)

F

- Finance (p. 190)
- First Nations Studies (p. 194)
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## G

- Geography (p. 199)
- Geoscience (p. 200)
- German (p. 204)
- Global Studies (p. 208)
- Graphic Design (p. 210)

H

- Health Information Management and Technology (p. 211)
- History (p. 213)
- Human Biology (p. 221)
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I

- Individual Major (p. 259)
- Information Technology and Data Science (p. 260)
- International Business (p. 264)


## M

- Management (p. 265)
- Marketing (p. 267)
- Mathematics \& Statistics (p. 269)
- Mechanical Engineering (p. 275)
- Mechanical Engineering Technology (p. 279)
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N

- Nursing (p. 300)


## 0

- Organizational Leadership (p. 312)


## P

- Personal Financial Planning (p. 319)
- Philosophy (p. 320)
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- Psychology (p. 329)
- Public Administration (p. 333)


## S

- Social Justice (p. 340)
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- Sociology \& Anthropology (p. 347)
- Spanish and Latin American Studies (p. 349)
- Sustainability (p. 354)


## T

- Theatre and Dance (p. 355)


## W

- Water Science (p. 366)
- Women's, Gender, and Sexuality Studies (p. 371)
- Writing and Applied Arts (p. 373)


## Accounting

(Bachelor of Business Administration)
Accounting at UW-Green Bay provides both in-depth knowledge and the broad business background necessary to understand the role of accounting in the business world.

Graduates are qualified to take professional accounting examinations, including the CPA* (Certified Public Accountant), CMA (Certified Management Accountant), and CIA (Certified Internal Auditing) examinations. Alumni surveys indicate that alumni perceive the Accounting program very favorably, their program of study prepared them extremely well for their careers, the quality of the Accounting faculty is "excellent," and they would recommend the program to others. The program provides considerable exposure to the liberal arts and develops the critical thinking, problem-solving, interpersonal, communication, quantitative, and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues, such as the role of accounting in continuous quality improvement, implementation of computer technology and advances in accounting information systems and accounting ethics..

There are three tracks for accounting majors that reflect the professional certification options. Those students planning on sitting for the CPA exam should select either the Business Analysis and Reporting emphasis or the Tax Compliance and Planning emphasis. Students planning on sitting for the CMA examination should select the Certified Management Accounting emphasis. All the accounting emphases offer a rigorous, problem-focused
program comprised of three integrated elements: supporting, core, and major courses. The supporting and core courses provide breadth and introduce each student to the foundations of business knowledge, including communications, economics, statistics, computers, accounting, finance, management and marketing. The major courses provide depth and prepare each Accounting student thoroughly for a professional career. Those wishing to pursue the Master's of Science in Management can apply for the accelerated program. Students selecting the accelerated program will complete nine credits of graduate-level classes that are geared toward students interested in the application of analytics in the accounting profession. These courses are offered to the students at the tuition for undergraduate courses and will apply toward their bachelor's degree. After completing the bachelor's degree (approximately 120 credits), students selecting the accelerated program may complete the Master's Degree in Management by taking an additional 22 credits.

Accounting students have extensive opportunities to meet business professionals and gain practical experience. An active Accounting student organization supports these efforts and helps students to meet others with like interests. Faculty members encourage participation in the internship program, through which students learn and earn credits while working in real business settings. Each spring semester, the VITA (Volunteer Income Tax Assistance) program is offered for credit where students train using an IRS program and assist in tax return preparation for elderly and low income taxpayers from the community.

## Entrance and Exit Requirements

Students can add an Accounting major or minor at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression for an Accounting major. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average. All students must meet this program exit requirement to graduate.

The accounting major prepares students to sit for a professional certification of the CPA, CMA or both. The certification exam process is rigorous and includes a proctored closed note exam. In order to prepare our students, this program uses proctoring software or may require proctors for certain online courses. Various proctors are acceptable including HR departments, local libraries and more. Details will be provided in specific courses.

## *150 Credit-Hour Requirement for CPA License

Students should be aware that the state of Wisconsin requires 120 college credit hours to write the Uniform CPA Exam, while 150 college credit hours are required to become a licensed CPA. The UW-Green Bay Accounting program is designed so that students with Accounting majors will have several options to earn the credits required for the CPA exam and become licensed as a CPA. An Accounting advisor assists each student in determining which option best meets his or her interests.

## Major Area of Emphasis (p. 72)

Students must complete requirements in one of the following areas of emphasis: (p.72)

- Business Analysis and Reporting (p. 72)
- Business Analysis and Reporting (Accelerated) - Integrated with graduate Management program (p. 72)
- Managerial Accounting (p. 72)
- Managerial Accounting (Accelerated)- Integrated with graduate Management program (p. 72)
- Tax Compliance (p. 72)
- Tax Compliance (Accelerated) - Integrated with graduate Management program (p. 72)


## Minor

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ACCTG 201 | Principles of Financial Accounting |
| ACCTG 202 | Principles of Managerial Accounting |
| Upper-Level Courses ${ }^{1}$ |  |
| ACCTG 301 | Intermediate Accounting I |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |
| Choose three of the following courses: |  |
| ACCTG 313 | Intermediate Accounting II |
| ACCTG 314 | Advanced Accounting |
| ACCTG 316 | Governmental and Nonprofit Accounting |
| ACCTG 323 | Intermediate Accounting III |
| ACCTG 411 | Accounting Information Systems |


| ACCTG 412 | Auditing Standards and Procedures |
| :--- | :--- |
| ACCTG 414 | Cost Accounting |
| ACCTG 415 | Advanced Income Tax Theory and Practice |
| ACCTG 452 | Accounting Data Analytics |
| Total Credits |  |

1 Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting.

## Faculty

Rasoul Rezvanian; Professor; Ph.D., Southern Illinois University
Karl Schindl; Professor; M.S., Northern Illinois University, chair
Thomas S Nesslein; Associate Professor; Ph.D., University of Washington - Seattle
Matthew Raunio; Associate Professor; M.B.A., University of Wisconsin - Oshkosh
Mussie M Teclezion; Associate Professor; D.B.A., Southern Illinois University at Carbondale
Zhuoli Axelton; Assistant Professor; Ph.D., Washington State University
Preston Cherry; Assistant Professor; Ph.D., Texas Tech University
Heather Kaminski; Assistant Professor; D.B.A., Anderson University
Eu Jin Kwak; Assistant Professor; Ph.D., University of Georgia*
Grace (Fangjun) Sang; Assistant Professor; Ph.D., Kent State
Kevin Jaklin; Assistant Teaching Professor; M.B.A., University of Wisconsin - Oshkosh

## Accounting Major

## Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Business Analysis and Reporting
- Business Analysis and Reporting (Accelerated) - Integrated with graduate Management program
- Managerial Accounting
- Managerial Accounting (Accelerated)- Integrated with graduate Management program
- Tax Compliance
- Tax Compliance (Accelerated) - Integrated with graduate Management program


## Business Analysis and Reporting

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ACCTG 201 | Principles of Financial Accounting |
| ACCTG 202 | Principles of Managerial Accounting |
| BUS ADM 201 | Principles of Sustainability in Business |
| BUS ADM 202 | Introduction to Business |
| BUSAN 230 | Spreadsheet and Information Systems |
| PHILOS 227 | Business Ethics |
| Economics: (choose one combination): |  |
| ECON 202 | Macro Economic Analysis |
| \& ECON 203 | and Micro Economic Analysis |
| ECON 208 | Economics WTCS Bridge |
| \& ECON 209 | and WTCS Transfer Credit |

## Statistics:

| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| :---: | :---: | :---: |
| Upper-Level Foundational Courses |  | 39 |
| Core Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Accounting Major Courses |  |  |
| ACCTG 301 | Intermediate Accounting I ${ }^{2}$ |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| ACCTG 452 | Accounting Data Analytics |  |
| BAR Emphasis |  | 9 |
| ACCTG 314 | Advanced Accounting |  |
| ACCTG 316 | Governmental and Nonprofit Accounting |  |
| BUS ADM 306 | Business Law |  |
| Capstone Experience: |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |
| or ACCTG 460 | Accounting Capstone |  |

1 Satisfied for students with an ACT English score of 32 or higher
2 Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting.

## Business Analysis and Reporting (Accelerated) - Integrated with graduate Management program

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Principles of Financial Accounting |  |
| ACCTG 201 | Principles of Managerial Accounting |  |
| ACCTG 202 | Principles of Sustainability in Business |  |
| BUS ADM 201 | Introduction to Business |  |
| BUS ADM 202 | Spreadsheet and Information Systems |  |
| BUSAN 230 | Business Ethics |  |
| PHILOS 227 | Macro Economic Analysis |  |
| Economics (choose one combination): |  |  |
| ECON 202 | and Micro Economic Analysis |  |
| \& ECON 203 | Economics WTCS Bridge |  |
| ECON 208 | and WTCS Transfer Credit |  |
| \& ECON 209 | Introduction to Business Statistics |  |
| Statistics: | Introductory Statistics |  |
| BUSAN 220 |  |  |
| or MATH 260 | Legal Environment of Business |  |
| Upper-Level Foundational Courses |  |  |
| Core Courses | Corporation Finance |  |
| BUS ADM 305 | Organizational Behavior |  |
| FIN 343 |  |  |
| MGMT 389 |  |  |


| MKTG 322 | Principles of Marketing |  |
| :---: | :---: | :---: |
| Accounting Major Courses |  |  |
| ACCTG 301 | Intermediate Accounting I ${ }^{2}$ |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| ACCTG 452 | Accounting Data Analytics |  |
| BAR Emphasis |  | 9 |
| ACCTG 314 | Advanced Accounting |  |
| ACCTG 316 | Governmental and Nonprofit Accounting |  |
| BUS ADM 306 | Business Law |  |
| Accelerated - Graduate Courses \# |  | 9 |
| BUSAN 570 | Data Science for Managers |  |
| BUSAN 635 | Foundations of Strategic Information Management |  |
| FIN 646 | Advanced Corporation Finance |  |
| Capstone Experience: one of two |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |
| ACCTG 460 | Accounting Capstone |  |

Total Credits

1 Satisfied for students with an ACT English score of 32 or higher
2 Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting.
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Management office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-inaccelerated/).

## Managerial Accounting

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 27-28 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one combination): |  |  |
| ECON 202 <br> \& ECON 203 | Macro Economic Analysis and Micro Economic Analysis |  |
| $\begin{aligned} & \text { ECON } 208 \\ & \text { \& ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics: |  |  |
| BUSAN 220 <br> or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses |  | 39 |
| Core Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |

## Accounting Major Courses

| ACCTG 301 | Intermediate Accounting \| ${ }^{2}$ |  |
| :---: | :---: | :---: |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| ACCTG 452 | Accounting Data Analytics |  |
| Accounting Major Electives |  | 6 |
| CMA emphasis: ${ }^{3}$ |  |  |
| FIN 446 | Advanced Corporation Finance |  |
| SCM 380 | Project Management |  |
| Capstone Experience: One of two |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |
| ACCTG 460 | Accounting Capstone |  |
| Total Credits |  | 75-76 |
| $\begin{array}{ll} 1 & \text { Satisfied for students with an AC } \\ 2 & \text { Students must earn BC or bette } \\ 3 & \text { BUS ADM } 306 \text { is recommended } \end{array}$ | T English score of 32 or higher <br> in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting. to students planning to take the CMA exam. |  |

## Managerial Accounting (Accelerated) - Integrated with graduate Management program

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 27-28 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one combination): |  |  |
| ECON 202 <br> \& ECON 203 | Macro Economic Analysis and Micro Economic Analysis |  |
| ECON 208 \& ECON 209 | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics: |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses 39 |  |  |
| Core Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Accounting Major Courses ${ }^{1}$ |  |  |
| ACCTG 301 | Intermediate Accounting I |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |


| ACCTG 452 | Accounting Data Analytics |
| :---: | :---: |
| Accounting Major Electives | 6 |
| CMA emphasis: |  |
| FIN 446 | Advanced Corporation Finance |
| SCM 380 | Project Management |
| Accelerated - Graduate Courses ${ }^{\text {* }}$ | 9 |
| BUSAN 570 | Data Science for Managers |
| BUSAN 635 | Foundations of Strategic Information Management |
| FIN 646 | Advanced Corporation Finance |
| Capstone Experience: one of two | 3 |
| MGMT 482 | Capstone in Business Strategy |
| ACCTG 460 | Accounting Capstone |
| Total Credits | 84-85 |
| 1 Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting. |  |
| \# Students must be granted permi Management office or refer to th accelerated/). | sion through the department to enroll in graduate level coursework. For more information, contact the graduate graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in- |

## Tax Compliance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 27-28 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one combination): |  |  |
| $\begin{aligned} & \text { ECON } 202 \\ & \& \text { ECON } 203 \end{aligned}$ | Macro Economic Analysis and Micro Economic Analysis |  |
| $\begin{aligned} & \text { ECON } 208 \\ & \text { \& ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics: |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses |  | 39 |
| Core Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Accounting Major Courses ${ }^{1}$ |  |  |
| ACCTG 301 | Intermediate Accounting I |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| ACCTG 452 | Accounting Data Analytics |  |

Tax Compliance \& Planning Emphasis:

| ACCTG 415 | Advanced Income Tax Theory and Practice |
| :--- | :--- |
| BUS ADM 306 | Business Law |
| FIN 415 | Employee Benefits and Retirement Planning |
| or FIN 425 | Estate and Trust Planning |
| or ACCTG 413 | Income Tax Practicum (VITA) |
| Capstone Experience: |  |
| MGMT 482 | Capstone in Business Strategy |
| or ACCTG 460 | Accounting Capstone |

Total Credits

Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting.

## Tax Compliance (Accelerated) - Integrated with graduate Management program

| Code | Title |  |
| :---: | :---: | :---: |
| Supporting Courses |  | 27-28 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one combination): |  |  |
| ECON 202 \& ECON 203 | Macro Economic Analysis and Micro Economic Analysis |  |
| ECON 208 \& ECON 209 | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics: |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses |  | 39 |
| Core Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Accounting Major Courses ${ }^{1}$ |  |  |
| ACCTG 301 | Intermediate Accounting I |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 323 | Intermediate Accounting III |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| ACCTG 452 | Accounting Data Analytics |  |
| Tax Compliance \& Planning Emphasis: |  |  |
| ACCTG 415 | Advanced Income Tax Theory and Practice |  |
| BUS ADM 306 | Business Law |  |
| FIN 415 | Employee Benefits and Retirement Planning |  |
| or FIN 425 | Estate and Trust Planning |  |
| or ACCTG 413 | Income Tax Practicum (VITA) |  |
| Accelerated - Graduate Courses ${ }^{\text {\# }}$ |  |  |
| BUSAN 570 | Data Science for Managers |  |


| BUSAN 635 | Foundations of Strategic Information Management |
| :--- | :--- |
| FIN 646 | Advanced Corporation Finance |
| Capstone Experience: one of two |  |
| MGMT 482 | Capstone in Business Strategy |
| or ACCTG 460 | Accounting Capstone |

## Total Credits

1 Students must earn BC or better in ACCTG 201, ACCTG 202, and ACCTG 301 in order to take upper-level courses in Accounting.
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Management office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-inaccelerated/).

## Art

(Bachelor of Arts)
The visual arts are important components of human experience. They provide a means of articulating and understanding that experience through processes of seeing, making, and thinking in terms of visual systems. The major or minor in Art includes courses in studio art and art history, global cultures, and contemporary art.

Art facilities include well-equipped studios in painting, drawing, sculpture, ceramics, photography (traditional and digital), jewelry/metals, fibers/textiles, and printmaking. All Art students who complete ART 101 (Tools, Safety, and Materials) have access to a professional wood and metal-working laboratory managed by a staff person who provides training and technical assistance.

The Art program at the University of Wisconsin-Green Bay holds NASAD accreditation.
Studio art courses:

- present art making as a problem-solving process using creative methods combining intuition and imagination with critical analysis;
- provide knowledge necessary to master materials and techniques;
- provide a foundation for and continuing reference to the principles of visual organization and structure essential to works of art;
- foster a receptive attitude toward diverse forms of artistic production including fine art, applied art, and art produced outside the artistic mainstream.

Art history, global cultures, and contemporary art courses:

- provide a conceptual and philosophical context by investigating stylistic characteristics of specific periods and the dynamic relationship between art and society.


## The Art discipline has three areas of emphasis:

- Studio Art can lead to professional practice as an artist or to related visual communication careers.
- Pre-Art Therapy is designed to prepare students for entry into graduate programs in professional mental health counseling, with specialization in Art Therapy.
- Art Education leads to credentials for teaching licensure from the Wisconsin Department of Public Instruction.

Art majors often combine their studies with a minor. Typical minors include Design Arts, Arts Management, Human Development, Business Administration, Women's and Gender Studies, and Humanistic Studies. The Art adviser can help select an appropriate minor depending upon students' individual goals.

Art majors who select a minor or double major in Design Arts are qualified to seek possible careers include graphic design, art direction, advertising, and other professional work in graphic communications.

Art majors who select a minor or a double major in Arts Management are qualified to seek careers in visual arts administration and art gallery management.

All areas prepare students for viable careers or for entry into graduate school programs. Students in Art should take as many and varied art courses as possible.

Students should seek faculty advising no later than the sophomore year in order to complete an Art major in a timely manner. Students seeking information on teacher certification should contact the Education Office. Students selecting the Pre-Art Therapy emphasis must complete a significant number of credits of Psychology and a Statistics course; we strongly recommend that those interested in this emphasis seek advising very early in their academic career.

Students in many fields find an Art minor an excellent supplement to their academic programs in the context of today's visually oriented, media-driven culture.

The Art minor may serve:

- individuals fulfilling a personal interest in art;
- those seeking to add visual skills to career preparations in such interdisciplinary fields as arts management, design arts, humanistic studies, urban and regional studies, and environmental planning;
- persons who intend it as a component of professional studies in fields such as education and business (advertising and marketing).

Active student organizations provide additional opportunities for art-related activities, as does a program of national and international visiting artists.

## Major Area of Emphasis (p. 80)

Students must complete requirements in one of the following areas of emphasis: (p. 80)

- Art Education (p. 80)
- Pre-Art Therapy (p. 80)
- Studio Art (p. 80)


## Minor Area of Emphasis (p. 84)

Students must complete requirements in one of the following areas of emphasis: (p. 84)

- Art History (p. 84)
- Studio Art (p. 84)


## Curriculum Guide

An example: Four year plan for Art Major with Studio Art Emphasis; Minor in Design Arts
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval | 3 |
| ART 105 or ART 106 or ART 107 | Introductory Drawing or Three Dimensional Design or Two-Dimensional Design | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed or Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ART 103 | History of the Visual Arts II: Renaissance to Modern | 3 |
| $\begin{aligned} & \text { ART } 105 \\ & \text { or ART } 106 \end{aligned}$ | Introductory Drawing or Three Dimensional Design | 3 |
| ART 106 or ART 107 | Three Dimensional Design or Two-Dimensional Design | 3 |
| General Ed |  | 3 |
| General Ed or Elective |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| ART 101 | Tools, Safety, and Materials | 1 |
| ART 2XX Intro Two-Dimensional Course |  | 3 |
| ART 2XX Intro Three-Dimensional Course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |


| Spring |  |  |
| :---: | :---: | :---: |
| ART 2XX Intro Two-Dimensional Course |  | 3 |
| ART 302 | Intermediate Drawing | 3 |
| ART 202 | Modern Art | 3 |
| DESIGN 131 | Introduction to Design and Culture | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| ART 376 | Modern American Culture | 3 |
| DESIGN 231 | Graphic Design Studio I | 3 |
| General Ed or Elective |  | 3 |
| General Ed or Elective |  | 3 |
| General Ed or Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ART 3XX/4XX Intermediate/Advanced Course |  | 3 |
| ART 3XX/4XX Intermediate/Advanced Course |  | 3 |
| DESIGN 231 <br> or DESIGN 332 | Graphic Design Studio I or Graphic Design Studio II | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| ART 3XX/4XX Intermediate/Advanced Course |  | 3 |
| DESIGN 332 <br> or DESIGN 431 | Graphic Design Studio II (or DESIGN 3XX/4XX Minor Elective) or Graphic Design Studio III | 3 |
| General Ed |  | 3 |
| General Ed or Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ART 3XX/4XX Intermediate/Advanced Course |  | 3 |
| ART 3XX/4XX Intermediate/Advanced Course |  | 3 |
| DESIGN 433 | Advanced Studio (or DESIGN 3XX/4XX Minor Elective) | 3 |
| Elective |  | 3 |
| General Ed 3 |  |  |
|  | Credits | 15 |
|  | Total Credits | 121 |

## Faculty

Sarah A Detweiler; Professor; M.F.A., University of Florida
Alison A Gates; Professor; M.F.A., University of Washington, chair
Minkyu Lee; Professor; M.F.A., Rochester Institute of Technology
Samuel E Watson; Associate Professor; Ph.D., University of Kansas
Lisa Wicka; Associate Professor; M.F.A., Purdue University
Mark Sauter; Assistant Teaching Professor; M.F.A., University of Wisconsin - Madison

## Art Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Art Education
- Pre-Art Therapy
- Studio Art


## Art Education

Art majors may complete an emphasis in Art Education leading to teacher licensure from the Wisconsin Department of Public Instruction. Only those requirements for coursework in Art are listed here. For additional information about admission to the teacher education program, consult the Education Office (www.uwgb.edu/education (http://www.uwgb.edu/education/)), or the Office of Academic Advising, or refer to the Education program description in this catalog. For advising information, see the Art Education adviser.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 43 |
| Art History |  |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval |  |
| or ART 103 | History of the Visual Arts II: Renaissance to Modern |  |
| ART 202 | Modern Art |  |
| ART 203 | Contemporary Art |  |
| Design Core |  |  |
| ART 101 | Tools, Safety, and Materials |  |
| ART 105 | Introductory Drawing |  |
| ART 106 | Three Dimensional Design |  |
| ART 107 | Two-Dimensional Design |  |
| Two-Dimensional Studios |  |  |
| ART 210 | Introduction to Painting |  |
| ART 243 | Introduction to Photography |  |
| ART 270 | Introduction to Printmaking |  |
| Three-Dimensional Studios |  |  |
| ART 220 | Introduction to Sculpture |  |
| ART 230 | Introduction to Ceramics |  |
| ART 235 | Introduction to Woodworking and Furniture Design |  |
| ART 250 | Introduction to Fibers/Textiles |  |
| ART 260 | Introduction to Jewelry/Metals |  |
| Upper-Level Courses |  | 24 |
| Required Courses |  |  |
| EDUC 316 | Teaching Art in the Middle and Secondary Schools |  |
| Drawing (choose one of the following courses): |  |  |
| ART 302 | Intermediate Drawing |  |
| or ART 304 | Figure Drawing |  |
| Art History (choose two of the following courses): |  |  |
| ART 376 | Modern American Culture |  |
| ART 379 | Women, Art and Image |  |
| ART 380 | History of Photography |  |
| ART 381 | Art of the First Nations |  |
| ART 382 | Precolumbian Art of Mesoamerica |  |
| ART 383 | African Art |  |
| ART 384 | Asian Art |  |
| Choose 12 credits of | courses ${ }^{1}$ |  |

Total Credits

1 Twelve elective credits should include four studio courses from the 300-400 level in drawing, painting, printmaking, photography, art metals, textiles, sculpture, ceramics, or woodworking \& furniture design for which appropriate prerequisites have been completed.

## Pre-Art Therapy

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 31 |
| Art History: |  |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval |  |
| or ART 103 | History of the Visual Arts II: Renaissance to Modern |  |
| ART 202 | Modern Art |  |
| ART 203 | Contemporary Art |  |
| Design Core: |  |  |
| ART 101 | Tools, Safety, and Materials |  |
| ART 105 | Introductory Drawing |  |
| ART 106 | Three Dimensional Design |  |
| ART 107 | Two-Dimensional Design |  |
| Two-dimensional studios (choose 2 for total 6 credits): |  |  |
| ART 210 | Introduction to Painting |  |
| ART 243 | Introduction to Photography |  |
| ART 270 | Introduction to Printmaking |  |
| Three-dimensional studios (choose 2 for total 6 credits): |  |  |
| ART 220 | Introduction to Sculpture |  |
| ART 230 | Introduction to Ceramics |  |
| ART 235 | Introduction to Woodworking and Furniture Design |  |
| ART 250 | Introduction to Fibers/Textiles |  |
| ART 260 | Introduction to Jewelry/Metals |  |
| Supporting Psychology Courses: |  | 6-7 |
| PSYCH 102 | Introduction to Psychology |  |
| or PSYCH 203 | Introduction to Lifespan Development |  |
| Choose one Statistics course: |  |  |
| PSYCH 205 | Social Science Statistics |  |
| MATH 260 | Introductory Statistics |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| Upper-Level Courses |  | 9 |
| ART 302 | Intermediate Drawing |  |
| or ART 304 | Figure Drawing |  |
| Choose two courses: |  |  |
| ART 376 | Modern American Culture |  |
| ART 379 | Women, Art and Image |  |
| ART 380 | History of Photography |  |
| ART 381 | Art of the First Nations |  |
| ART 382 | Precolumbian Art of Mesoamerica |  |
| ART 383 | African Art |  |
| ART 384 | Asian Art |  |
| Upper-Level Art Studio Courses: |  | 9 |
| Complete any 9 credits from Upper-Level Studio list including one 400-level course. |  |  |
| ART 304 | Figure Drawing |  |
| ART 402 | Advanced Drawing |  |
| Painting: |  |  |
| ART 309 | Intermediate Painting: Oil Painting |  |
| ART 310 | Intermediate Painting: Media Exploration |  |
| ART 311 | Intermediate Painting: Contemporary Approaches |  |
| ART 410 | Advanced Painting |  |
| Photography: |  |  |
| ART 343 | Photography II |  |


| ART 344 | Photography III |  |
| :---: | :---: | :---: |
| ART 443 | Advanced Problems in Photography |  |
| Printmaking: |  |  |
| ART 373 | Intermediate Printmaking |  |
| ART 375 | Screen Printing |  |
| ART 470 | Advanced Printmaking |  |
| Sculpture: |  |  |
| ART 321 | Intermediate Sculpture |  |
| ART 421 | Advanced Sculpture |  |
| Ceramics: |  |  |
| ART 331 | Intermediate Ceramics |  |
| ART 431 | Advanced Ceramics |  |
| Textiles: |  |  |
| ART 355 | Intermediate Fibers/Textiles |  |
| ART 453 | Advanced Fibers/Textiles |  |
| Jewelry/Metals: |  |  |
| ART 364 | Intermediate Jewelry/Metals |  |
| ART 463 | Advanced Jewelry/Metals |  |
| ART 497 | Internship (up to 3 credits) |  |
| ART 498 | Independent Study (up to 3 credits) |  |
| ART 499 | Travel Course (up to 3 credits) |  |
| Woodworking \& Furniture Design: |  |  |
| ART 335 | Intermediate Woodworking \& Furniture Design |  |
| ART 435 | Advanced Woodworking \& Furniture Design |  |
| Upper-Level Psychology Courses: |  | 13 |
| PSYCH 300 | Research Methods in Psychology |  |
| PSYCH 438 | Counseling and Psychotherapy |  |
| Choose 6 credits of PSYCH electives |  |  |
| PSYCH 305 | Psychology of Stereotyping and Prejudice |  |
| PSYCH 350 | Cultural Psychology |  |
| PSYCH 401 | Psychology of Women and Gender |  |
| PSYCH 417 | Psychology of Cognitive Processes |  |
| PSYCH 429 | Theories of Personality |  |
| PSYCH 435 | Psychopathology |  |
| PSYCH 440 | Multicultural Counseling and Mental Health |  |
| PSYCH 460 | Clinical Child Psychology |  |
| PSYCH 497 | Internship |  |

Total Credits

## Studio Art

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| Art History |  |
| ART 102 |  |
| or ART 103 | History of the Visual Arts: Ancient to Medieval |
| ART 202 | History of the Visual Arts II: Renaissance to Modern |
| ART 203 | Modern Art |
| Design Core | Contemporary Art |
| ART 101 | Tools, Safety, and Materials |
| ART 105 | Introductory Drawing |
| ART 106 | Three Dimensional Design |
| ART 107 | Two-Dimensional Design |


| Two-Dimensional Studios (choose 6 credits): |  |
| :--- | :--- |
| ART 210 | Introduction to Painting |
| ART 243 | Introduction to Photography |
| ART 270 | Introduction to Printmaking |


| Three-Dimensional Studios (choose 6 credits): |  |
| :--- | :--- |
| ART 220 | Introduction to Sculpture |
| ART 230 | Introduction to Ceramics |
| ART 235 | Introduction to Woodworking and Furniture Design |
| ART 250 | Introduction to Fibers/Textiles |
| ART 260 | Introduction to Jewelry/Metals |

Upper-Level Core Courses 24

Required Core Courses

| ART 302 | Intermediate Drawing |
| :---: | :--- |
| or ART 304 | Figure Drawing |

Art History (choose two of the following courses):

| ART 376 | Modern American Culture |
| :--- | :--- |
| ART 379 | Women, Art and Image |
| ART 380 | History of Photography |
| ART 381 | Art of the First Nations |
| ART 382 | Precolumbian Art of Mesoamerica |
| ART 383 | African Art |
| ART 384 | Asian Art |
| Upper-Level Studio Art Emphasis Courses (15 credits) ${ }^{1}$ |  |

Total Credits

1 Students in the Studio Art Emphasis may choose from a variety of studio options in either 2-D or 3-D studios. Once students have decided on their chosen studio courses, they fill out the upper-level Studio Art Plan form in consultation with an Art adviser. The Art Plan form is used to count courses taken toward the degree and must be filed with the Registrar's Office. - The 10-credit Design Core is required prerequisite for all upperlevel studio courses. - A minimum of 9 credits must be selected from one studio area in addition to other relevant upper-level studio art courses to total 15 credits. Upper-level classes have a 300 or 400 designation. - Advanced studios may be taken 3 times for a total of 9 credits. Some courses may have other courses substituted to be more appropriate for student goals. Talk to your adviser for more details.

## Art Minor

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Art History
- Studio Art


## Art History

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ART 102 History of the Visual Arts: Ancient to Medieval <br> or ART 103 History of the Visual Arts II: Renaissance to Modern <br> ART 105 Introductory Drawing <br> ART 107 Two-Dimensional Design <br> ART 202 Modern Art <br> ART 203 Contemporary Art <br> Upper-Level Courses  <br> Choose three of the following courses:  <br> ART 376 Modern American Culture <br> ART 379 Women, Art and Image |  |


| ART 380 | History of Photography |
| :--- | :--- |
| ART 381 | Art of the First Nations |
| ART 382 | Precolumbian Art of Mesoamerica |
| ART 383 | African Art |
| ART 384 | Asian Art |

Total Credits

## Studio Art

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 19 |
| ART 101 | Tools, Safety, and Materials |  |
| ART 105 | Introductory Drawing |  |
| ART 106 | Three Dimensional Design |  |
| ART 107 | Two-Dimensional Design |  |
| ART 202 | Modern Art |  |
| Introductory Studios (choose 6 credits): |  |  |
| ART 210 | Introduction to Painting |  |
| ART 220 | Introduction to Sculpture |  |
| ART 230 | Introduction to Ceramics |  |
| ART 235 | Introduction to Woodworking and Furniture Design |  |
| ART 243 | Introduction to Photography |  |
| ART 250 | Introduction to Fibers/Textiles |  |
| ART 260 | Introduction to Jewelry/Metals |  |
| ART 270 | Introduction to Printmaking |  |
| Upper-Level Courses ${ }^{1}$ |  | 6 |
| Total Credits |  | 25 |

1 Select two ART courses at the 300-400 level, for which appropriate prerequisites have been completed. The entire Design Core is required for enrollment in all 300-400 upper-level studio courses.

## Arts Management

(minor only)
The Arts Management minor allows students to study the organizational aspects of arts and cultural delivery systems. Arts Management focuses on both the administration of not-for-profit arts and cultural organizations, as well as the interaction between arts and contemporary society. The philosophy of the program is grounded in community settings and the curriculum is centered around three focus areas: management and organizational skills, interdisciplinary arts literacy, and practical experience. Students with Arts Management majors and minors can find employment in museums, theatrical organizations, symphonies, arts councils and historical societies, and are also prepared to work within their communities to support and promote the arts in educational, business and civic settings.

Arts Management minors have the option of completing an internship or choosing additional coursework or practicum which expands their experience and arts management knowledge. A minimum 3.0 GPA is required for internship placement .

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see www.uwgb.edu/international/ (http://www.uwgb.edu/international/).

## Minor: Emphasis in General

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ARTS MGT 256 | Understanding the Arts |
| ARTS MGT 257 | Arts in the Community |
| Choose 3 credits: |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval |


| ART 103 | History of the Visual Arts II: Renaissance to Modern |  |
| :---: | :---: | :---: |
| ART 202 | Modern Art |  |
| MUSIC 121 | Survey of Western Music |  |
| MUSIC 272 | Women in the Performing Arts |  |
| THEATRE 110 | Introduction to Theatre Arts |  |
| Upper-Level Courses |  | 12 |
| ARTS MGT 354 | Managing Arts and Cultural Organizations |  |
| ARTS MGT 355 | Funding and Financial Issues in the Arts |  |
| ARTS MGT 356 | Promoting the Arts |  |
| Choose 3 credits: |  |  |
| ARTS MGT 455 | Practicum in Arts Management |  |
| ARTS MGT 497 | Internship (minimum 3.0 GPA required for internship placement) |  |
| ENGLISH 324 | Sheepshead Review Practicum |  |
| PUB ADM 315 | Public and Non-Profit Management |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |

Total Credits

## Minor: Emphasis in Gallery and Museum Practices

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| ARTS MGT 256 | Understanding the Arts |  |
| ARTS MGT 257 | Arts in the Community |  |
| Choose 3 credits: |  |  |
| ART 103 | History of the Visual Arts II: Renaissance to Modern |  |
| ART 106 | Three Dimensional Design |  |
| ART 202 | Modern Art |  |
| COMM 133 | Fundamentals of Public Address |  |
| DESIGN 131 | Introduction to Design and Culture |  |
| Upper-Level Courses |  | 15 |
| ARTS MGT 354 | Managing Arts and Cultural Organizations |  |
| ARTS MGT 355 | Funding and Financial Issues in the Arts |  |
| ARTS MGT 356 | Promoting the Arts |  |
| ARTS MGT 357 | Gallery \& Museum Studies |  |
| Choose 3 credits: |  |  |
| ARTS MGT 455 | Practicum in Arts Management |  |
| ARTS MGT 497 | Internship |  |

Total Credits

## Biology

## (Bachelor of Science)

Biology is one of UW-Green Bay's most popular academic programs. The curriculum explores living systems from subcellular organelles to ecosystems. Biology majors can customize their academic plans to emphasize cell and molecular biology, animal biology, or ecology and conservation science. These tracks prepare students for a wide variety of interdisciplinary careers in resource management, fisheries and wildlife biology, health sciences, genetics, microbiology, science communications (technical writing, journalism, and nature interpretation), and many other fields. About 40 percent of Biology graduates pursue advanced degrees in graduate or professional schools in medicine, dentistry, veterinary science, biological sciences, wildlife biology, or ecology and conservation biology. Students at UW-Green Bay also can combine a Biology degree with a program in primary or secondary school education.

Graduates of UW-Green Bay's Biology program are employed today in government agencies (U.S. Environmental Protection Agency, Food and Drug Administration, Fish and Wildlife Service, Forest Service, Bureau of Land Management, Department of Agriculture, Wisconsin Department of Natural Resources, local government agencies); hospitals and clinics, including veterinary hospitals and zoos; private corporations (pharmaceuticals, food
processing, agriculture, etc.); environmental consulting firms; conservation organizations; and educational institutions ranging from elementary schools to universities.

Biology majors often combine their studies with a minor. Human Biology is commonly chosen as a minor by Biology majors with interests in premedicine, health sciences or exercise science. Students interested in ecology, biodiversity conservation, and management of biological resources such as wildlife, forests, and fisheries, typically combine a minor in Environmental Science. Other popular subjects for Biology majors include Business Administration and Environmental Policy and Planning.

Students who prefer a Biology minor (rather than a major) often choose majors in Environmental Science or Human Biology. Students who desire to become science teachers often combine the Biology major with the professional program in Education. Information about teacher certification requirements can be found at the UW-Green Bay Education Office (http://www.uwgb.edu/education/).

UW-Green Bay's Biology program provides outstanding opportunities for students to gain practical experience. Many undergraduates work with faculty on field or laboratory research projects. Internships are widely available with private industry, public agencies, and non-profit organizations. These hands-on experiences are critical for developing a competitive resume for the job market or admission to graduate and professional schools.

The Biology program has well-equipped laboratories for coursework and faculty-guided research. In cellular and molecular biology laboratories, students become familiar with techniques of tissue culture, in situ hybridization, affinity chromatography, agarose and polyacrylamide gel, electrophoresis, polymerase chain reaction, and the use of monoclonal antibodies. In physiology laboratories, students learn techniques to study physiological functions. Teaching and research facilities available to ecology and conservation biology students include the Cofrin Center for Biodiversity, the 290-acre Cofrin Memorial Arboretum surrounding the UW-Green Bay campus, four off-campus natural areas managed by the University, the Richter Natural History Museum, small animal laboratory, the Gary A. Fewless Herbarium, a greenhouse, and state-of-the-art computer labs. Advanced undergraduates are able to participate in research projects on Great Lakes ecosystems, northern forests, agroecosystems, rivers, lakes, wetlands, and even tropical forests and mangroves.

Students in the Biology major develop basic skills such as statistical design and analysis, laboratory proficiency, and familiarity with major taxonomic groupings of plants, animals, and microorganisms. Many high paying occupations today require a college-educated individual who can write and speak well, solve problems using a scientific approach, learn new information quickly, and work well with others on a team. UW-Green Bay's Biology students acquire and apply these skills with excellence.

## Biology Program Mission Statement

The Biology Program at the University of Wisconsin-Green Bay provides a quality educational curriculum in the study of life and living systems, from the molecular level to the ecosystem level. The disciplinary major and minor complement UW-Green Bay's interdisciplinary programs, especially those in Human Biology, Environmental Science, and the professional program in Education. The biology major prepares students for careers in ecology, organismal biology, physiology, genetics, cell and molecular biology, medicine and human health, veterinary science, wildlife management, education, agriculture, and science communication. Faculty and staff teach students to think critically and to solve complex problems scientifically by providing hands-on laboratory and field experiences as well as meaningful scientific research opportunities. The Biology Program contributes intellectual, cultural, and economic outreach activities and scientific research that enriches the quality of life for people in northeastern Wisconsin and elsewhere.

## Biology Student Learning Outcomes

## Students in the Biology Program will:

1. Describe the organization and diversity of life at levels of complexity from subcellular to ecosystem.
2. Demonstrate an understanding of genetic information, hereditary processes, and their relevance to evolutionary change as a product of mutation and natural selection
3. Explain the important processes and pathways that sustain living organisms including functional systems for exchange of energy and matter
4. Solve problems by applying a scientific process of inquiry, including the effective use of appropriate techniques, instrumentation, and data analysis
5. Identify and interpret findings of scientists and communicate results of scientific work to others in the scientific community and the general public

## Major Area of Emphasis (p. 89)

Students must complete requirements in one of the following areas of emphasis: (p. 89)

- Animal Biology (p. 89)
- Animal Biology (Accelerated) - Integrated with graduate Environmental Science \& Policy program (p. 89)
- Aquatic Ecology and Fisheries Emphasis (p. 89)
- Cell/Molecular (p. 89)
- Ecology and Conservation (p. 89)
- Ecology and Conservation (Accelerated) - Integrated with graduate Environmental Science \& Policy Program (p. 89)
- Microbiology (p. 89)
- Pre-Veterinary (p. 89)


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 18 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| Upper-Level Courses |  | 17-18 |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| Cell or Microbiology (Choose one option): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Choose one of the following courses: |  |  |
| BIOLOGY 311 | Plant Physiology |  |
| BIOLOGY 346 | Comparative Physiology |  |

Total Credits

## Curriculum Guides (p. 98)

The following are curriculum guides for a four-year Biology degree program and is subject to change without notice. Students should consult a Biology program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option. (p. 98)

- Biology Major with Emphasis in Animal Biology Curriculum Guide Example (p. 98)
- Biology Major with Emphasis in Aquatic Ecology and Fisheries Curriculum Guide Example (p. 98)
- Biology Major with Emphasis in Cell/Molecular Biology Curriculum Guide Example (p. 98)
- Biology Major with Emphasis in Ecology \& Conservation Biology Curriculum Guide Example (p. 98)
- Biology Major with Emphasis in Microbiology Curriculum Guide Example (p. 98)
- Biology Major with Emphasis in Pre-Vet Curriculum Guide Example (p. 98)


## Faculty

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Mathew E Dornbush; Professor; Ph.D., Iowa State University*

Michael L Draney; Professor; Ph.D., University of Georgia*

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Keir Wefferling; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee
Christopher Houghton; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Biology Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Animal Biology
- Animal Biology (Accelerated) - Integrated with graduate Environmental Science \& Policy program
- Aquatic Ecology and Fisheries Emphasis
- Cell/Molecular
- Ecology and Conservation
- Ecology and Conservation (Accelerated) - Integrated with graduate Environmental Science \& Policy Program
- Microbiology
- Pre-Veterinary


## Animal Biology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 25-26 |
| BIOLOGY 201 \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one course): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 337 | Environmental GIS |  |
| Upper-Level Courses |  | 30-33 |
| Required courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 311 | Plant Physiology |  |
| or BIOLOGY 346 | Comparative Physiology |  |
| Cell or Microbiology (choose one): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |


| BIOLOGY 323 \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |
| :---: | :---: |
| BIOLOGY 322 | Environmental Microbiology |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |
| Choose 12-14 credits from the following courses: |  |
| BIOLOGY 304 | Genetics Laboratory |
| BIOLOGY 310 | Plant Biodiversity |
| BIOLOGY 320 | Field Botany |
| BIOLOGY 322 | Environmental Microbiology |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |
| BIOLOGY 341 | Ichthyology |
| BIOLOGY 342 | Ornithology |
| BIOLOGY 343 | Mammalogy |
| BIOLOGY 345 | Animal Behavior |
| BIOLOGY 346 | Comparative Physiology |
| BIOLOGY 355 | Entomology |
| BIOLOGY 357 | Marine Biology |
| BIOLOGY 365 | Aquatic Invertebrates |
| BIOLOGY 401 | Fish and Wildlife Population Dynamics |
| BIOLOGY 410 | Developmental Biology |
| BIOLOGY 411 | Developmental Biology Laboratory |
| BIOLOGY 449 | Wetland Ecology |
| BIOLOGY 450 | Ecological Restoration |
| ENV SCI 337 | Environmental GIS |
| ENV SCI 401 | Stream Ecology |
| ENV SCI 403 | Limnology |
| HUM BIOL 402 | Human Physiology |
| HUM BIOL 403 | Human Physiology Laboratory |
| HUM BIOL 413 | Neurobiology |
| HUM BIOL 422 | Immunology |
| HUM BIOL 423 | Immunology Lab |
| HUM BIOL 444 | Endocrinology |
| Seminar, 1 credit required |  |
| BIOLOGY 490 | Biology Seminar |

Total Credits

# Animal Biology (Accelerated) - Integrated with graduate Environmental Science \& Policy program 

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | $\mathbf{2 5 - 2 6}$ |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| \& BIOLOGY 202 | and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| \& BIOLOGY 204 | and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 | Principles of Chemistry I |  |
| \& CHEM 213 | and Principles of Chemistry I Laboratory |  |
| CHEM 212 | Principles of Chemistry II |  |
| \& CHEM 214 | and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one course): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |


| ENV SCI 336 | Environmental Statistics |  |
| :---: | :---: | :---: |
| ENV SCI 337 | Environmental GIS |  |
| Upper-Level Courses |  | 30-33 |
| Required courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 311/511 | Plant Physiology \# |  |
| or BIOLOGY 346 | Comparative Physiology |  |
| Cell or Microbiology (choose one): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |
| BIOLOGY 323 \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| BIOLOGY 322/522 | Environmental Microbiology \# |  |
| HUM BIOL 323 <br> \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Choose 12-14 credits from the following courses: |  |  |
| BIOLOGY 304 | Genetics Laboratory |  |
| BIOLOGY 310/510 | Plant Biodiversity \# |  |
| BIOLOGY 320/520 | Field Botany \# |  |
| BIOLOGY 322/522 | Environmental Microbiology \# |  |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |  |
| BIOLOGY 341/541 | Ichthyology \# |  |
| BIOLOGY 342/542 | Ornithology \# |  |
| BIOLOGY 343/543 | Mammalogy \# |  |
| BIOLOGY 345 | Animal Behavior |  |
| BIOLOGY 346 | Comparative Physiology |  |
| BIOLOGY 355/555 | Entomology \# |  |
| BIOLOGY 357/557 | Marine Biology \# |  |
| BIOLOGY 365/565 | Aquatic Invertebrates |  |
| BIOLOGY 401/601 | Fish and Wildlife Population Dynamics \# |  |
| BIOLOGY 410 | Developmental Biology |  |
| BIOLOGY 411 | Developmental Biology Laboratory |  |
| BIOLOGY 449/649 | Wetland Ecology |  |
| BIOLOGY 450/650 | Ecological Restoration |  |
| ENV SCI 337/537 | Environmental GIS \# |  |
| ENV SCI 401/601 | Stream Ecology \# |  |
| ENV SCI 403/603 | Limnology \# |  |
| HUM BIOL 402/602 | Human Physiology \# |  |
| HUM BIOL 403 | Human Physiology Laboratory |  |
| HUM BIOL 413 | Neurobiology |  |
| HUM BIOL 422 | Immunology |  |
| HUM BIOL 423 | Immunology Lab |  |
| HUM BIOL 444 | Endocrinology |  |
| Seminar, 1 credit required |  |  |
| BIOLOGY 490 | Biology Seminar |  |

Total Credits $\quad$ 55-59
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Environmental Science \& Policy office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Aquatic Ecology and Fisheries

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 25-26 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one course): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 337 | Environmental GIS |  |
| Upper Level Courses |  | 36 |
| Required Courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 346 | Comparative Physiology |  |
| BIOLOGY 449 | Wetland Ecology |  |
| Choose one of the following courses: |  |  |
| BIOLOGY 341 | Ichthyology |  |
| BIOLOGY 360 | Early Life History of Fish |  |
| BIOLOGY 365 | Aquatic Invertebrates |  |
| Choose one of the following courses: |  |  |
| ENV SCI 401 | Stream Ecology |  |
| ENV SCI 403 | Limnology |  |
| Choose one of the following courses: |  |  |
| BIOLOGY 370 | Fisheries Research and Management |  |
| BIOLOGY 401 | Fish and Wildlife Population Dynamics |  |
| Seminar |  | 1 |
| BIOLOGY 490 | Biology Seminar |  |
| Total Credits |  | 62-63 |
| Cell/Molecular |  |  |
| Code | Title | Credits |
| Supporting Courses |  | 25-26 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |


| Mathematics (choose one course): |  |  |
| :---: | :---: | :---: |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 337 | Environmental GIS |  |
| Upper-Level Courses |  | 34-35 |
| Required courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 307 | Cell Biology |  |
| BIOLOGY 308 | Cell Biology Laboratory |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 311 | Plant Physiology |  |
| or BIOLOGY 346 | Comparative Physiology |  |
| BIOLOGY 407 | Molecular Biology |  |
| Microbiology (Choose one) |  |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 <br> \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Minimum of 4 credits of the following courses: |  |  |
| CHEM 300 <br> \& CHEM 301 | Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |
| Choose a minimum of 5 credits from the following courses: |  |  |
| BIOLOGY 304 | Genetics Laboratory |  |
| BIOLOGY 312 | Mycology |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 402 | Advanced Microbiology |  |
| BIOLOGY 408 | Molecular Biology Laboratory |  |
| BIOLOGY 410 | Developmental Biology |  |
| BIOLOGY 411 | Developmental Biology Laboratory |  |
| CHEM 330 | Biochemistry |  |
| CHEM 331 | Biochemistry Laboratory |  |
| HUM BIOL 422 | Immunology |  |
| HUM BIOL 423 | Immunology Lab |  |
| HUM BIOL 444 | Endocrinology |  |
| Seminar, 1 credit required |  |  |
| BIOLOGY 490 | Biology Seminar |  |

## Total Credits

1 Satisfied with an ACT English score of 32 or higher

## Ecology and Conservation

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 201 | and Principles of Biology Lab: Cellular and Molecular Processes |  |
| \& BIOLOGY 202 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 203 | and Principles of Biology Lab: Organisms and Evolution |  |
| \& BIOLOGY 204 | Principles of Chemistry I |  |
| CHEM 211 | and Principles of Chemistry I Laboratory |  |
| \& CHEM 213 |  |  |


| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| :---: | :---: | :---: |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one course): |  |  |
| COMP SCI 256 | Introduction to Software Design |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| Upper-Level Courses |  | 30-31 |
| Required Courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 469 | Conservation Biology |  |
| Cell or Microbiology (choose one): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Physiology Course (choose one): |  |  |
| BIOLOGY 311 | Plant Physiology |  |
| or BIOLOGY 346 | Comparative Physiology |  |
| Choose a minimum of 8 credits from the following courses: |  |  |
| BIOLOGY 310 | Plant Biodiversity |  |
| BIOLOGY 311 | Plant Physiology |  |
| BIOLOGY 312 | Mycology |  |
| BIOLOGY 320 | Field Botany |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 342 | Ornithology |  |
| BIOLOGY 343 | Mammalogy |  |
| BIOLOGY 355 | Entomology |  |
| BIOLOGY 357 | Marine Biology |  |
| BIOLOGY 365 | Aquatic Invertebrates |  |
| BIOLOGY 401 | Fish and Wildlife Population Dynamics |  |
| BIOLOGY 449 | Wetland Ecology |  |
| BIOLOGY 450 | Ecological Restoration |  |
| ENV SCI 337 | Environmental GIS |  |
| ENV SCI 401 | Stream Ecology |  |
| ENV SCI 403 | Limnology |  |
| ENV SCI 467 | Capstone in Environmental Science |  |
| ENV SCI 499 | Travel Course |  |
| Seminar, 1 credit required |  |  |
| BIOLOGY 490 | Biology Seminar |  |

# Ecology and Conservation (Accelerated) - Integrated with graduate Environmental Science \& Policy program 

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 25-26 |
| BIOLOGY 201 \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one course): |  |  |
| COMP SCI 256 | Introduction to Software Design |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| Upper-Level Courses |  | 30-31 |
| Required Courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 469 | Conservation Biology |  |
| Cell or Microbiology (Choose one): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 323 \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Physiology Course (choose one): |  |  |
| BIOLOGY 311 <br> or BIOLOGY 346 | Plant Physiology <br> Comparative Physiology |  |
| Choose a minimum of 8 credits from the following courses: |  |  |
| BIOLOGY 310/510 | Plant Biodiversity \# |  |
| BIOLOGY 311/511 | Plant Physiology \# |  |
| BIOLOGY 312/512 | Mycology \# |  |
| BIOLOGY 320/520 | Field Botany \# |  |
| BIOLOGY 322/522 | Environmental Microbiology \# |  |
| BIOLOGY 342/542 | Ornithology \# |  |
| BIOLOGY 343/543 | Mammalogy \# |  |
| BIOLOGY 355/555 | Entomology \# |  |
| BIOLOGY 357/557 | Marine Biology \# |  |
| BIOLOGY 365/565 | Aquatic Invertebrates \# |  |
| BIOLOGY 401/601 | Fish and Wildlife Population Dynamics \# |  |
| BIOLOGY 449/649 | Wetland Ecology \# |  |
| BIOLOGY 450/650 | Ecological Restoration \# |  |
| ENV SCI 337/537 | Environmental GIS* |  |
| ENV SCI 401/601 | Stream Ecology \# |  |
| ENV SCI 403/603 | Limnology \# |  |
| ENV SCI 467 | Capstone in Environmental Science |  |


| ENV SCI 499 | Travel Course |
| :--- | :--- |
| Seminar, $\mathbf{1}$ credit required | Biology Seminar |
| BIOLOGY 490 |  |

Total Credits
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Environmental Science \& Policy office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Microbiology

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |
| \& BIOLOGY 202 | and Principles of Biology Lab: Cellular and Molecular Processes |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |
| \& BIOLOGY 204 | and Principles of Biology Lab: Organisms and Evolution |
| CHEM 211 | Principles of Chemistry I |
| \& CHEM 213 | and Principles of Chemistry I Laboratory |
| CHEM 212 | Principles of Chemistry II |
| \& CHEM 214 | and Principles of Chemistry II Laboratory |
| MATH 260 | Introductory Statistics |
| Mathematics (choose one course): |  |
| MATH 104 | Precalculus |
| MATH 202 | Calculus and Analytic Geometry I |
| ENV SCI 336 | Environmental Statistics |
| ENV SCI 337 | Cell Biology |
| Upper-Level Courses |  |


| BIOLOGY 497 | Internship |
| :--- | :--- |
| HUM BIOL 422 | Immunology |
| HUM BIOL 423 | Immunology Lab |
| Seminar (1 credit required): |  |
| BIOLOGY 490 | Biology Seminar |

Total Credits
1 Research experience and/or Internships are highly recommended. Credits from research and internships may be counted toward upper level electives. Students planning to continue on to graduate school or a professional program are recommended to take calculus, physics and organic chemistry.

## Pre-Veterinary

| Code | Title |  |
| :---: | :---: | :---: |
| Supporting Courses |  | 34-35 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| Mathemetics (choose one course): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 337 | Environmental GIS |  |
| Physics Lecture (choose one of the following options): |  |  |
| PHYSICS 103 <br> \& PHYSICS 104 | Fundamentals of Physics I and Fundamentals of Physics II |  |
| PHYSICS 201 <br> \& PHYSICS 202 | Principles of Physics I and Principles of Physics II |  |
| Physics Labs |  |  |
| PHYSICS 203 <br> \& PHYSICS 204 | Introductory Physics Lab I and Introductory Physics Lab II |  |
| Upper-Level Courses |  | 41 |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 306 | Principles of Ecology |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 346 | Comparative Physiology |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |
| CHEM 303 <br> \& CHEM 305 | Organic Chemistry II and Organic Chemistry Laboratory II |  |
| CHEM 330 | Biochemistry |  |
| Cell Biology (choose one of the following options): |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |

Choose a minimum of 8 credits from the following courses:

| BIOLOGY 304 | Genetics Laboratory |
| :--- | :--- |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |
| BIOLOGY 342 | Ornithology |
| BIOLOGY 343 | Mammalogy |
| BIOLOGY 345 | Animal Behavior |
| BIOLOGY 411 | Developmental Biology Laboratory |
| HUM BIOL 422 | Immunology |
| HUM BIOL 423 | Immunology Lab |
| Seminar, $\mathbf{1}$ credit required |  |
| BIOLOGY 490 | Biology Seminar |

## Total Credits

## Biology Curriculum Guides

The following are curriculum guides for a four-year Biology degree program and is subject to change without notice. Students should consult a Biology program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Biology Major with Emphasis in Animal Biology Curriculum Guide Example
- Biology Major with Emphasis in Aquatic Ecology and Fisheries Curriculum Guide Example
- Biology Major with Emphasis in Biology for Educators Curriculum Guide Example
- Biology Major with Emphasis in Cell/Molecular Biology Curriculum Guide Example
- Biology Major with Emphasis in Ecology \& Conservation Biology Curriculum Guide Example
- Biology Major with Emphasis in Microbiology Curriculum Guide Example
- Biology Major with Emphasis in Pre-Vet Curriculum Guide Example


## Biology Major with Emphasis in Animal Biology

An example: Four year plan for Biology Major with Emphasis in Animal Biology 120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| MATH 104 or General Ed |  |  |
|  | Credits | 13 |
| Spring |  |  |
| BIOLOGY 201 \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory (or Biology 302) | 4 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |


| Spring |  |  |
| :---: | :---: | :---: |
| BIOLOGY 303 | Genetics | 3 |
| BIOLOGY 309 | Evolutionary Biology | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16-17 |
| Spring |  |  |
| BIOLOGY 346 | Comparative Physiology (Or BIOLOGY 311 in Fall) | 3 |
| Biology Elective |  | 3-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15-17 |
| Senior |  |  |
| Fall |  |  |
| BIOLOGY 490 | Biology Seminar (Fall or Spring) | 1 |
| ```BIOLOGY 498 or BIOLOGY 497``` | Independent Study (Recommended) or Internship | 1-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 14-18 |
| Spring |  |  |
| Biology Elective |  | 3-4 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15-16 |
|  | Total Credits | 120-128 |

## Biology Major with Emphasis in Aquatic Ecology \& Fisheries

An example: Four year plan for Biology Major with Emphasis in Aquatic Ecology \& Fisheries 120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |


| MATH 260 | Introductory Statistics | 4 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 303 | Genetics | 3 |
| MATH 104 or MATH 202 | Precalculus or Calculus and Analytic Geometry I | 4 |
| $\begin{aligned} & \text { WF } 105 \\ & \text { or INFO SCI } 390 \end{aligned}$ | Research and Rhetoric or Technical Writing | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 360 | Early Life History of Fish | 4 |
| BIOLOGY 469 | Conservation Biology | 4 |
| ENV SCI 403 <br> or ENV SCI 401 | Limnology or Stream Ecology | 4 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| BIOLOGY 341 | Ichthyology | 4 |
| BIOLOGY 322 | Environmental Microbiology | 4 |
| BIOLOGY 346 | Comparative Physiology | 3 |
| BIOLOGY 370 | Fisheries Research and Management | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Senior |  |  |
| Fall |  |  |
| BIOLOGY 490 | Biology Seminar | 1 |
| ENV SCI 467 | Capstone in Environmental Science | 4 |
| Major Elective |  | 3-4 |
| Major Elective |  | 3-4 |
| General Ed |  | 3 |
|  | Credits | 14-16 |
| Spring |  |  |
| BIOLOGY 401 | Fish and Wildlife Population Dynamics | 4 |
| BIOLOGY 449 | Wetland Ecology | 3 |
| Major Elective |  | 3-4 |
| Major Elective |  | 3-4 |
|  | Credits | 13-15 |
|  | Total Credits | 107-111 |

## Biology Major with Emphasis in Cell/Molecular

## An example: Four year plan for Biology Major with Emphasis in Cell/Molecular

 120 credits necessary to graduate.Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| MATH 104 or General Ed |  | 3 |
|  | Credits | 16 |


| Spring |  |  |
| :---: | :---: | :---: |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory | 4 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 303 | Genetics | 3 |
| BIOLOGY 309 | Evolutionary Biology | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| BIOLOGY 307 <br> \& BIOLOGY 308 | Cell Biology and Cell Biology Laboratory | 4 |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I (or CHEM 300 in Spring) | 4 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| BIOLOGY 346 | Comparative Physiology (Or BIOLOGY 311 in Fall) | 3 |
| CHEM 300 <br> \& CHEM 301 | Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory (or Organic I in Fall) | 4 |
| BIOLOGY 407 | Molecular Biology | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| BIology 490 | Biology Seminar (fall or spring) | 1 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16-17 |
| Spring |  |  |
| Biology Elective |  | 3-4 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 12-13 |
|  | Total Credits | 122-124 |

## Biology Major with Emphasis in Ecology \& Conservation

An example: Four year plan for Biology Major with Emphasis in Ecology and Conservation Biology 120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| MATH 104 or General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 16 |

## Sophomore

Fall

| BIOLOGY 323 | Principles of Microbiology | 4 |
| :---: | :---: | :---: |
| \& BIOLOGY 324 | or Cell Biology |  |
| or BIOLOGY 307 | or Environmental Microbiology |  |
| or BIOLOGY 322 |  |  |
| WF 105 | Research and Rhetoric | 3 |
| MATH 202 or General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 303 | Genetics | 3 |
| BIOLOGY 306 | Principles of Ecology | 4 |
| BIOLOGY 322 or BIOLOGY 323 or BIOLOGY 307 | Environmental Microbiology or Principles of Microbiology or Cell Biology | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |


| Junior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| BIOLOGY 307 | Cell Biology | 4 |
| \& BIOLOGY 308 | or Environmental Microbiology |  |
| or BIOLOGY 322 | or Principles of Microbiology |  |
| or BIOLOGY 323 |  |  |
| BIOLOGY 309 | Evolutionary Biology | 3 |
| BIOLOGY 311 | Plant Physiology (or BIOLOGY 346 in spring) | 4 |
| General Ed |  | 3 |
| Elective |  |  |
|  | Credits | 14 |
| Spring |  |  |
| BIOLOGY 346 | Comparative Physiology (Or BIOLOGY 311 in Fall) | 3 |
| Biology Elective |  | 3-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15-17 |


| Senior |  |
| :--- | :--- |
| Fall |  |
| BIOLOGY 490 | Biology Seminar (fall or spring) |
| BIOLOGY 498 <br> or BIOLOGY 497 | Independent Study (Recommended) <br> or Internship |


| Biology Elective |  | 3 |
| :--- | :--- | ---: |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective | Credits | $\mathbf{3}$ |
|  |  | $\mathbf{1 5 - 1 7}$ |
| Spring |  | $3-4$ |
| Biology Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective | Credits | $\mathbf{3}$ |
|  | Total Credits | $\mathbf{1 2 - 1 3}$ |
|  | $\mathbf{1 2 1 - 1 2 6}$ |  |

## Biology Major with Emphasis in Biology for Educators

An example: Four year plan for Biology Major with Emphasis in Biology for Educators
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 <br> \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 204 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 307 | Cell Biology | 4 |
| \& BIOLOGY 308 | and Cell Biology Laboratory (or Biology 302) |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Spring |  |  |
| BIOLOGY 303 | Genetics | 3 |
| BIOLOGY 309 | Evolutionary Biology | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| Biology Elective |  | 3-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16-18 |


| Spring |  |  |
| :---: | :---: | :---: |
| BIOLOGY 346 <br> or BIOLOGY 311 | Comparative Physiology or Plant Physiology | 3-4 |
| Biology Elective |  | 3-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15-18 |
| Senior |  |  |
| Fall |  |  |
| BIOLOGY 490 | Biology Seminar (fall or spring) | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 12 |
|  | Total Credits | 123-128 |

## Biology Major with Emphasis in Microbiology

An example: Four year plan for Biology Major with Emphasis in Microbiology
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| General Ed (or Math 104) |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 323 \& BIOLOGY 324 or BIOLOGY 322 | Principles of Microbiology or Environmental Microbiology | 4 |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I | 4 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed (or Math 202) |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Spring |  |  |
| BIOLOGY 303 | Genetics | 3 |


| BIOLOGY 309 | Evolutionary Biology | 3 |
| :---: | :---: | :---: |
| CHEM 303 <br> \& CHEM 305 | Organic Chemistry II and Organic Chemistry Laboratory II | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 311 | Plant Physiology (or BIOLOGY 346 in Spring, or Biology elective) | 4 |
| BIOLOGY 402 | Advanced Microbiology | 4 |
| General Ed |  | 3 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 17-19 |
| Spring |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 16-19 |
| Senior |  |  |
| Fall |  |  |
| BIOLOGY 490 | Biology Seminar (Fall or Spring) | 1 |
| BIOLOGY 498 or BIOLOGY 497 | Independent Study (recommended) or Internship | 1-4 |
| General Ed |  | 3 |
| Biology Elective |  | 3-4 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 14-20 |
| Spring |  |  |
| Biology Elective |  | 3-4 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 12-16 |
|  | Total Credits | 124-139 |

## Biology major with Emphasis in Pre-Veterinary

An example: Four year plan for Biology Major with Emphasis in Pre-Veterinary
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 203 \& BIOLOGY 204 | Principles of Biology: Organisms and Evolution and Principles of Biology Lab: Organisms and Evolution | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| First Year Seminar |  | 3 |
| General Ed (or Math 104) |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| MATH 260 | Introductory Statistics | 4 |


| General Ed (or Physics) |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 303 | Genetics | 3 |
| CHEM 302 | Organic Chemistry I | 4 |
| \& CHEM 304 | and Organic Chemistry Laboratory I |  |
| WF 105 | Research and Rhetoric | 3 |
| General Ed (or Physics) |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 307 | Cell Biology | 4 |
| \& BIOLOGY 308 | and Cell Biology Laboratory |  |
| BIOLOGY 309 | Evolutionary Biology | 3 |
| CHEM 303 | Organic Chemistry II | 4 |
| \& CHEM 305 | and Organic Chemistry Laboratory II |  |
| General Ed (or Physics) |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| CHEM 330 | Biochemistry | 3 |
| PHYSICS 103 or PHYSICS 201 | Fundamentals of Physics I or Principles of Physics I | 4 |
| General Ed |  | 3 |
| Elective |  | 3-4 |
|  | Credits | 17-18 |
| Spring |  |  |
| BIOLOGY 346 | Comparative Physiology | 3 |
| PHYSICS 104 or PHYSICS 202 | Fundamentals of Physics II or Principles of Physics II | 4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3-4 |
|  | Credits | 16-18 |
| Senior |  |  |
| Fall |  |  |
| BIOLOGY 490 | Biology Seminar (Fall or Spring) | 1 |
| BIOLOGY 498 or BIOLOGY 497 | Independent Study (recommended) or Internship | 1-4 |
| Biology Elective |  | 3-4 |
| General Ed |  | 3 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 14-20 |
| Spring |  |  |
| Biology Elective |  | 3-4 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
| Elective |  | 3-4 |
|  | Credits | 12-16 |
|  | Total Credits | 124-137 |

## Business Administration

## (Bachelor of Business Administration)

UW-Green Bay's major and minor in Business Administration offer the skills and broad business background needed for a lifetime of opportunity. More than 90 percent of graduates typically find employment in business, industry, government, and other fields, or enter graduate programs within six months of graduation. UW-Green Bay students are accepted into reputable graduate schools. Many alumni are successful business leaders. Alumni surveys
indicate that alumni perceive the Business Administration program very favorably, their program of study prepared them extremely well for their careers, the quality of the Business Administration faculty is "excellent," and they would recommend the program to others.

The program provides considerable exposure to the liberal arts and develops the critical thinking, problem-solving, interpersonal, communication, quantitative and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues such as global competition, social responsibility and ethics, sustainability, and the relationship between organizations and various environmental forces.

The Business Administration major is an interdisciplinary and problem-focused program comprised of three integrated elements: supporting, core and emphasis courses. The supporting and core courses provide breadth and introduce each student to the foundations of business knowledge, including communications, economics, statistics, computers, accounting, law, finance, management and marketing. Each Business Administration major extensively studies an area of emphasis:

- Business Analytics
- Entrepreneurship
- General Business
- Supply Chain Management

Each emphasis consists of courses designed to thoroughly prepare the student in a business specialization.
A distinctive feature of the program is that many upper-level courses include a practical project component, offering the opportunity to apply the problemsolving theories and concepts learned in the classroom to real situations. Alumni say this increases their value to employers and sets them apart from traditional business program graduates.

Extensive opportunities are available for students to meet business professionals and gain practical experience. Active student organizations support these efforts and help students to meet others with like interests. Faculty members encourage participation in internships.

## Program Entrance and Exit Requirements

Students can add a Business Administration major or minor at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression for a Business Administration major or minor.

## Major Area of Emphasis (p. 108)

Students must complete requirements in one of the following areas of emphasis: (p. 108)

- Business Analytics (p. 108)
- Entrepreneurship (p. 108)
- General Business (p. 108)
- Supply Chain Management (p. 108)


## Overview of Program Emphases

## Business Analytics:

Learn to translate data for business decisions. The Business Analytics emphasis prepares students to interpret and analyze complex data into comprehensive insights for making actionable decisions. Students will be able to answer questions regarding what happened, what will happen, and what needs to be done. (p. 108)

## Entrepreneurship:

Entrepreneurship skills are highly sought and marketable. Entrepreneurially minded graduates keep organizations viable through innovation. Entrepreneurship courses develop students' skills in problem solving, resourcefulness, independence, and critical thinking. The Entrepreneurship emphasis provides students with in-depth knowledge in the Entrepreneurship domain through a rigorous curriculum with courses covering important topics including how to capture new markets and create new businesses that operate virtually, about online peer networks, e-business models and pitch experience and venture acceleration. (p. 108)

## General Business:

The General Business emphasis is designed for working professionals seeking to advance their professional careers.\#The emphasis provides students with the opportunity to tailor the major by selecting specific coursework benefitting their career or aligning with their interests. Students can select to pursue one of the three certificate tracks (Digital Marketing \& Sales, Entrepreneurship, or Supply Chain Management) or pursue
the broad selection of courses to complete the general track. Entry into the program requires the transfer of a minimum of 40 credits from an accredited university, and at least 3 years of full-time equivalent relevant, professional experience to be evaluated through submitted evidentiary material.\# Admitted students can earn an additional six credits toward their general major requirements (Capstone experience excluded) through credit for prior learning.\# Evaluation of credit for prior learning follows accepted university practices.

## Supply Chain Management:

Supply chain management is one of the most important career choices in the world. Everything we purchase gets to store shelves via a supply chain. Students will learn how supply chain management integrates supply and demand management within and across companies. The program closely studies the supply of materials to a manufacturer, along with the production and the distribution of finished goods through a network of distributors and retailers to a final customer. Careers in supply chain management are on the rise and continually increasing year after year with an excellent job outlook. (p. 108)

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 15-16 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| BUS ADM 202 | Introduction to Business |  |
| or FIN 282 | Personal Financial Planning |  |
| Choose one of the following courses: |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Upper-Level Courses |  | 12 |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Total Credits |  | 27-28 |

## Faculty

Gaurav Bansal; Professor; Ph.D., University of Wisconsin - Milwaukee*
Bardia Batala; Assistant Professor; Ph.D., Oklahoma State University
Ranga Parthasarathy; Assistant Professor; Ph.D., DePaul University*
Hyeinsik Shin; Assistant Professor; Ph.D., Fox School of Business, Temple University*
Nischal Thapa; Assistant Professor; Ph.D., University of Missouri - Kansas City
Matthew Geimer; Associate Teaching Professor; J.D., University of Wisconsin - Madison
Praneet Tiwari; Assistant Teaching Professor; M.S., University of North Texas
Paul Werner; Assistant Teaching Professor; M.B.A., University of Minnesota

## Business Administration Major

Students must complete requirements in one of the following areas of emphasis:

- Business Analytics
- Entrepreneurship
- General Business
- Supply Chain Management


## Business Analytics:

Learn to translate data for business decisions. The Business Analytics major prepares students to interpret and analyze complex data into comprehensive insights for making actionable decisions. Students will be able to answer questions regarding what happened, what will happen, and what needs to be done.

## Entrepreneurship:

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## General Business:

The General Business emphasis is designed for working professionals seeking to advance their professional careers.\#The emphasis provides students with the opportunity to tailor the major by selecting specific coursework benefitting their career or aligning with their interests. Students can select to pursue one of the three certificate tracks (Digital Marketing \& Sales, Entrepreneurship, or Supply Chain Management) or pursue the broad selection of courses to complete the general track. Entry into the program requires the transfer of a minimum of 40 credits from an accredited university, and at least 3 years of full-time equivalent relevant, professional experience to be evaluated through submitted evidentiary material.\# Admitted students can earn an additional six credits toward their general major requirements (Capstone experience excluded) through credit for prior learning.\# Evaluation of credit for prior learning follows accepted university practices.

## Supply Chain Management:

Supply chain management is one of the most important career choices in the world. Everything we purchase gets to store shelves via a supply chain. Students will learn how supply chain management integrates supply and demand management within and across companies. The program closely studies the supply of materials to a manufacturer, along with the production and the distribution of finished goods through a network of distributors and retailers to a final customer. Careers in supply chain management are on the rise and continually increasing year after year with an excellent job outlook.

## Business Analytics

| Code | Title | Credits |
| :---: | :---: | :---: |
| Foundational Courses |  | 36-37 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| HRM 262 | Introduction to Human Resource Management |  |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| PHILOS 227 | Business Ethics |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Economics (choose one combination): |  |  |
| $\begin{aligned} & \text { ECON } 202 \\ & \text { \& ECON } 203 \end{aligned}$ | Macro Economic Analysis and Micro Economic Analysis |  |
| $\begin{aligned} & \text { ECON } 208 \\ & \& \text { ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics (choose one) |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses |  | 15 |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| SCM 380 | Project Management |  |


| BUSAN 320 | Advanced Business Statistics |  |
| :--- | :--- | :--- |
| BUSAN 435 | Foundations of Strategic Information Management |  |
| BUSAN 450 | Database for Business Analytics |  |
| BUSAN 452 | Business Analytics |  |
| BUSAN 453 | Machine Learning for Business Analytics | $\mathbf{3}$ |
| BUSAN 464 | Data Visualization and Storytelling |  |
| Capstone Experience | Capstone in Business Strategy | $\mathbf{7 2 - 7 3}$ |
| MGMT 482 |  |  |
| Total Credits |  |  |

## Entrepreneurship

| Code | Title | Credits |
| :---: | :---: | :---: |
| Lower-level Courses |  | 33-34 |
| Foundational Courses |  |  |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| HRM 262 | Introduction to Human Resource Management |  |
| PHILOS 227 | Business Ethics |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Economics (choose one combination): |  |  |
| $\begin{aligned} & \text { ECON } 202 \\ & \text { \& ECON } 203 \end{aligned}$ | Macro Economic Analysis and Micro Economic Analysis |  |
| ECON 208 <br> \& ECON 209 | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics (choose one) |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  |  |
| Foundational Courses |  | 15 |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| SCM 380 | Project Management |  |
| Entrepreneurship Emphasis Required Courses |  | 18 |
| ENTRP 373 | Entrepreneurial Finance |  |
| ENTRP 481 | Small Business Management \& Family Entrepreneurship |  |
| ENTRP 486 | Design Thinking and Developing Business Models |  |
| ENTRP 488 | Minimum Viable Product and New Product Development |  |
| ENTRP 491 | Advanced Entrepreneurial Marketing |  |
| ENTRP 492 | Social Entrepreneurship |  |
| Capstone Experience |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |

## General Business

| Code | Title | Credits |
| :---: | :---: | :---: |
| Lower-Level Courses |  | 27 |
| Foundational Courses |  |  |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one): |  |  |
| $\text { ECON } 202$ | Macro Economic Analysis |  |
| or ECON 203 | Micro Economic Analysis |  |
| or ECON 209 | WTCS Transfer Credit |  |
| Foundational Elective Courses (pick three) |  |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| HRM 262 | Introduction to Human Resource Management |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Upper-Level Courses 30 |  |  |
| Required Foundation Courses |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| General Emphasis (minimum of 18 credits total, see the list below) |  |  |
| Minimum of 3 credits from ACCTG or FIN courses listed within General Electives |  |  |
| Minimum of 3 credits from BUS ADM, BUSAN, ENTRP, or SCM courses listed within General Electives |  |  |
| Minimum of 3 credits from HRM, MGMT, or MKTG courses listed within General Electives |  |  |
| ACCTG 301 | Intermediate Accounting I |  |
| ACCTG 313 | Intermediate Accounting II |  |
| ACCTG 314 | Advanced Accounting |  |
| ACCTG 316 | Governmental and Nonprofit Accounting |  |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| ACCTG 411 | Accounting Information Systems |  |
| ACCTG 412 | Auditing Standards and Procedures |  |
| ACCTG 414 | Cost Accounting |  |
| BUS ADM 306 | Business Law |  |
| BUSAN 320 | Advanced Business Statistics |  |
| BUSAN 370 | Data Science for Managers |  |
| BUSAN 435 | Foundations of Strategic Information Management |  |
| BUSAN 436 | Analysis \& Design of Business Information Systems |  |
| BUSAN 452 | Business Analytics |  |
| ECON 330 | Money, Banking and Financial Markets |  |
| ENTRP 373 | Entrepreneurial Finance |  |
| ENTRP 481 | Small Business Management \& Family Entrepreneurship |  |
| ENTRP 486 | Design Thinking and Developing Business Models |  |
| FIN 344 | Real Estate Principles |  |
| FIN 345 | Risk Management and Insurance |  |
| FIN 415 | Employee Benefits and Retirement Planning |  |
| FIN 425 | Estate and Trust Planning |  |
| FIN 442 | Principles of Investment |  |
| FIN 445 | International Financial Management |  |


| FIN 446 | Advanced Corporation Finance |
| :---: | :---: |
| FIN 450 | Bank Administration and Management |
| FIN 475 | Financial Plan Development |
| HRM 460 | Employee Development and Training |
| HRM 465 | Recruitment and Selection |
| HRM 466 | Employment Law |
| HRM 467 | Compensation and Benefits Planning |
| HRM 468 | Employee Relations |
| HRM 469 | Performance Management and Analytics |
| HRM 470 | SHRM-CP Prep I |
| MGMT 380 | International Business Management |
| MGMT 452 | Teams |
| MGMT 460 | Leading Innovation and Change |
| MGMT 461 | Diversity in Organizations |
| MGMT 472 | Leadership Development |
| MGMT 479 | Organizational Culture \& Design |
| MKTG 327 | Selling and Sales Management |
| MKTG 345 | Digital Marketing |
| MKTG 421 | International Marketing |
| MKTG 423 | Advertising |
| MKTG 424 | Research Methods |
| MKTG 426 | Marketing Strategy |
| MKTG 428 | Consumer Behavior |
| MKTG 447 | Social Media Marketing and Analytics |
| SCM 380 | Project Management |
| SCM 381 | Operations Management |
| SCM 383 | Enterprise Resource Planning |
| SCM 384 | Supply Chain Management |
| SCM 434 | Logistics Management |

General Electives note: Internship course (497) cannot be used to satisfy General Business Electives

| Capstone Experience |  |
| :--- | :--- |
| MGMT 482 | Capstone in Business Strategy |

Total Credits

## Supply Chain Management

| Code | Title |
| :--- | :--- |
| Lower-Level Courses |  |
| Foundational Courses |  |
| ACCTG 201 | Principles of Financial Accounting |
| ACCTG 202 | Principles of Managerial Accounting |
| BUS ADM 201 | Principles of Sustainability in Business |
| BUS ADM 202 | Introduction to Business |
| BUSAN 230 | Spreadsheet and Information Systems |
| ENTRP 272 | Introduction to Entrepreneurship |
| HRM 262 | Introduction to Human Resource Management |
| PHILOS 227 | Business Ethics |
| SCM 200 | Principles of Supply Chain Management |
| Economics (choose one combination): |  |
| ECON 202 | Macro Economic Analysis |
| \& ECON 203 | and Micro Economic Analysis |
| ECON 208 | Economics WTCS Bridge |
| \& ECON 209 | and WTCS Transfer Credit |



Total Credits

## Chemistry

## (Bachelor of Science)

Chemists have made significant contributions to the improvement of the quality of our lives. They have played a vital role in the advancement of so many fields that it is hard to think of an area where the contributions of chemists have not been important. The challenges of today and tomorrow will continue to rely upon well-trained and creative chemists for their solutions.

UW-Green Bay offers three emphases in chemistry. Two emphases are approved by the American Chemical Society and are designed for students who are interested in a career as a practicing chemist at the bachelor's level or who are interested in advancing their education in graduate or professional school. The other emphasis is appropriate for students who are interested in working in a chemistry intensive industry or teaching chemistry at the secondary level.

The UW-Green Bay Chemistry program is an integrated progression of lecture and laboratory instruction that is designed to provide students with the skills needed by chemists today and tomorrow. These skills include a solid understanding of chemical principles, hands-on training in the use of modern instrumentation, experience in the design of experiments and the ability to analyze data and present results. The majority of UW-Green Bay Chemistry majors have opportunities to work as research assistants on faculty projects, or to conduct their own independent projects. UW-Green Bay faculty are active in research on chemical catalysis, sol-gel chemistry, natural product synthesis, alternative and renewable energy, chemistry of ultrasound, polymer synthesis and applications, mesoporous material synthesis and applications, computation chemistry, photocatalysis, sensors, environmental chemistry, biochemistry, and molecular biology. A research experience is an excellent way to develop and to showcase your professional skills and can provide a significant advantage when entering the job market and in applying to graduate and professional schools.

The University maintains an excellent collection of modern instrumentation, including: Hewlett-Packard and Varian gas chromatography (GC) systems with a variety of detectors (e.g., MS, ECD, FID, and TCD); Shimadzu high performance liquid chromatography (HPLC) systems; a Dionex ion chromatograph (IC); a TESCAN scanning electron microscope (SEM) with an energy dispersive x-ray detector; an Anasazi nuclear magnetic resonance (NMR) spectrometer; a Nicolet Fourier Transform Infrared (FTIR) spectrometer; a Varian inductively coupled plasma atomic emission spectrometer (ICP AES); a Perkin Elmer luminescence spectrometer (LS); Shimadzu UV/visible spectrophotometers; a three-channel Lachat QuikChem 8500 flow injection analyzer (FIA); a Shimadzu total organic carbon (TOC) analyzer; a Suprex supercritical fluid extractor (SFE); and gamma-ray and liquid scintillation counters. Students gain hands-on experience with these instruments during advanced coursework and in research projects.

A UW-Green Bay Chemistry major provides excellent training for students interested in careers in industry and for students interested in continuing their studies in graduate and professional schools. UW-Green Bay Chemistry majors are sought after by local industries for their strong chemistry skills and problem-solving abilities. Approximately half of the UW-Green Bay Chemistry majors begin their professional careers in industry. Students interested in continuing their studies have been admitted to the top graduate schools in the chemical and health sciences and into professional schools
in medicine, dentistry, and veterinary science. UW-Green Bay Chemistry majors have gone on to become university professors, medical doctors and corporate directors.

## Major Area of Emphasis (p. 115)

Students must complete requirements in one of the following areas of emphasis: (p. 115)

- General Chemistry (p. 115)
- American Chemical Society Certified Chemistry (p. 115)
- American Chemical Society Certified Environmental Chemistry (p. 115)
- Biochemistry (p. 115)
- Food Chemistry (p. 115)


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 11 |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| Upper-Level Courses |  | 12 |
| CHEM 311 | Analytical Chemistry |  |
| Complete one of the following course groups: |  |  |
| CHEM 300 <br> \& CHEM 301 | Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |
| Choose 4 credits from the following elective courses: |  |  |
| BIOLOGY 407 \& BIOLOGY 408 | Molecular Biology and Molecular Biology Laboratory |  |
| CHEM 303 <br> \& CHEM 305 | Organic Chemistry II and Organic Chemistry Laboratory II |  |
| CHEM 320 <br> \& CHEM 322 | Thermodynamics and Kinetics and Thermodynamics and Kinetics Laboratory |  |
| CHEM 321 <br> \& CHEM 323 | Structure of Matter and Structure of Matter Laboratory |  |
| CHEM 330 <br> \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| CHEM 410 <br> \& CHEM 411 | Inorganic Chemistry and Inorganic Chemistry Laboratory |  |
| CHEM 413 | Instrumental Analysis |  |
| CHEM 417 | Nuclear Physics and Radiochemistry ${ }^{1}$ |  |
| CHEM 420 <br> \& CHEM 423 | Polymer Chemistry and Polymer Chemistry Laboratory |  |
| NUT SCI 327 | Nutritional Biochemistry |  |

Total Credits

## Curriculum Guides (p. 119)

The following are curriculum guides for a four-year Chemistry degree program and is subject to change without notice. Students should consult a Chemistry program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option. (p. 119)

- General (p. 119)Chemistry
- ACS Certified C (p. 119)hemistry
- ACS Certified Environmental Chemistry (p. 119)
- Biochemistry
- Food Chemistry

Michael E Zorn; Professor; Ph.D., University of Wisconsin - Madison*
Mandeep Bakshi; Associate Professor; Ph.D., Panjab University (India)
Georgette Heyrman; Associate Professor; Ph.D., Northwestern University
Jeremy J Intemann; Associate Professor; Ph.D., Iowa State University
Amy Kabrhel; Associate Professor; Ph.D., University of Minnesota
James Kabrhel; Associate Professor; Ph.D., University of Minnesota - Twin Cities
Mark Klemp; Associate Professor; Ph.D., University of Michigan
Breeyawn Lybbert; Associate Professor; Ph.D., University of California - Los Angeles
Michael J McIntire; Associate Professor; Ph.D., University of California - Riverside, chair
Debra A Pearson; Associate Professor; Ph.D., University of California - Davis
Julie M Wondergem; Associate Professor; Ph.D., Marquette University
Nydia D Villanueva; Associate Teaching Professor; Ph.D., University of Connecticut
Kiel Nikolakakis; Assistant Teaching Professor; Ph.D., University of California - Santa Barbara

## Chemistry Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- General Chemistry
- American Chemical Society Certified Chemistry
- American Chemical Society Certified Environmental Chemistry
- Biochemistry
- Food Chemistry


## General Chemistry

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| CHEM 207 | Laboratory Safety |
| CHEM 211 | Principles of Chemistry I |
| \& CHEM 213 | and Principles of Chemistry I Laboratory |
| CHEM 212 | Principles of Chemistry II |
| \& CHEM 214 | and Principles of Chemistry II Laboratory |
| MATH 202 | Calculus and Analytic Geometry I |
| MATH 203 | Calculus and Analytic Geometry II |
| PHYSICS 201 | Principles of Physics I |
| PHYSICS 203 | Introductory Physics Lab I |
| PHYSICS 202 | Principles of Physics II |
| PHYSICS 204 | Introductory Physics Lab II |
| Upper-Level Courses |  |
| Core Courses | Organic Chemistry I |
| CHEM 302 | and Organic Chemistry Laboratory I |
| \& CHEM 304 | Organic Chemistry II |
| CHEM 303 | and Organic Chemistry Laboratory II |
| \& CHEM 305 |  |


| CHEM 311 | Analytical Chemistry |
| :--- | :--- |
| CHEM 320 | Thermodynamics and Kinetics |
| \& CHEM 322 | and Thermodynamics and Kinetics Laboratory |
| CHEM 321 | Structure of Matter |
| \& CHEM 323 | and Structure of Matter Laboratory |
| CHEM 413 | Instrumental Analysis |
| Electives (choose $\mathbf{4}$ credits): |  |
| BIOLOGY 407 | Molecular Biology |
| BIOLOGY 408 | Molecular Biology Laboratory |
| CHEM 330 | Biochemistry |
| CHEM 331 | Biochemistry Laboratory |
| CHEM 402 | Advanced Organic Chemistry |
| CHEM 403 | Advanced Organic Chemistry Laboratory |
| CHEM 410 | Inorganic Chemistry |
| CHEM 411 | Inorganic Chemistry Laboratory |
| CHEM 417 | Nuclear Physics and Radiochemistry |
| CHEM 420 | Polymer Chemistry |
| CHEM 423 | Polymer Chemistry Laboratory |

Total Credits

## American Chemical Society Certified Chemistry

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 37 |
| CHEM 207 | Laboratory Safety |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| PHYSICS 201 | Principles of Physics I |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Upper-Level Courses |  | 35 |
| Core Courses |  |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |
| CHEM 303 <br> \& CHEM 305 | Organic Chemistry II and Organic Chemistry Laboratory II |  |
| CHEM 311 | Analytical Chemistry |  |
| CHEM 320 \& CHEM 322 | Thermodynamics and Kinetics and Thermodynamics and Kinetics Laboratory |  |
| CHEM 321 <br> \& CHEM 323 | Structure of Matter and Structure of Matter Laboratory |  |
| CHEM 330 <br> \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| CHEM 410 <br> \& CHEM 411 | Inorganic Chemistry and Inorganic Chemistry Laboratory |  |
| CHEM 413 | Instrumental Analysis |  |

## Total Credits

## American Chemical Society Certified in Environmental Chemistry

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 48 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory |  |
| ENV SCI 102 | Introduction to Environmental Sciences |  |
| GEOSCI 202 | Physical Geology |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 260 | Introductory Statistics |  |
| PHYSICS 201 | Principles of Physics I |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Upper-Level Courses |  | 39 |
| Core Courses |  |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |
| CHEM 303 <br> \& CHEM 305 | Organic Chemistry II and Organic Chemistry Laboratory II |  |
| CHEM 311 | Analytical Chemistry |  |
| CHEM 320 <br> \& CHEM 322 | Thermodynamics and Kinetics and Thermodynamics and Kinetics Laboratory |  |
| CHEM 321 <br> \& CHEM 323 | Structure of Matter and Structure of Matter Laboratory |  |
| CHEM 330 <br> \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| CHEM 410 <br> \& CHEM 411 | Inorganic Chemistry and Inorganic Chemistry Laboratory |  |
| CHEM 413 | Instrumental Analysis |  |
| CHEM 496 | Project/Research Assistantship (3 credits of Research is required) |  |
| ENV SCI 305 | Environmental Fate and Transport |  |

Total Credits

## Biochemistry

| Code <br> Supporting Courses | Title |
| :--- | :--- |
| BIOLOGY 201 |  |
| BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes |
| CHEM 207 | Principles of Biology Lab: Cellular and Molecular Processes |
| CHEM 211 | Principles of Chemistry I |
| CHEM 212 | Principles of Chemistry II |
| CHEM 213 | Principles of Chemistry I Laboratory |


| CHEM 214 | Principles of Chemistry II Laboratory |  |
| :---: | :---: | :---: |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 260 | Introductory Statistics |  |
| PHYSICS 201 | Principles of Physics I |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Upper-Level Courses |  | 27 |
| Core Courses |  |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 304 | Genetics Laboratory |  |
| BIOLOGY 407 | Molecular Biology |  |
| BIOLOGY 408 | Molecular Biology Laboratory |  |
| CHEM 302 | Organic Chemistry I |  |
| CHEM 303 | Organic Chemistry II |  |
| CHEM 304 | Organic Chemistry Laboratory I |  |
| CHEM 305 | Organic Chemistry Laboratory II |  |
| CHEM 311 | Analytical Chemistry |  |
| CHEM 324 | Biophysical Chemistry |  |
| CHEM 325 | Biophysical Chemistry Laboratory |  |
| CHEM 330 | Biochemistry |  |
| CHEM 331 | Biochemistry Laboratory |  |
| CHEM Electives: Choose any 4 credits ${ }^{1}$ |  | 4 |
| CHEM 413 | Instrumental Analysis |  |
| CHEM 402 \& CHEM 403 | Advanced Organic Chemistry and Advanced Organic Chemistry Laboratory |  |
| CHEM 410 \& CHEM 411 | Inorganic Chemistry and Inorganic Chemistry Laboratory |  |
| CHEM 420 \& CHEM 423 | Polymer Chemistry and Polymer Chemistry Laboratory |  |
| BIOLOGY or HUMAN BIOLOGY Elective: Choose any 3 credits ${ }^{2}$ |  | 3 |
| BIOLOGY 307 | Cell Biology |  |
| BIOLOGY 323 | Principles of Microbiology |  |
| HUM BIOL 426 | Cancer Biology |  |
| HUM BIOL 444 | Endocrinology |  |

## Total Credits

1 CHEM 495, 496, or 497 are encouraged but not counted toward the major requirements
2 BIOLOGY 495, 496, or 497 are encouraged but not counted toward the major requirements

## Food Chemistry

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| CHEM 207 | Laboratory Safety |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |
| CHEM 211 | Principles of Chemistry I |
| CHEM 212 | Principles of Chemistry II |
| CHEM 213 | Principles of Chemistry I Laboratory |
| CHEM 214 | Principles of Chemistry II Laboratory |
| MATH 202 | Calculus and Analytic Geometry I |


| MATH 203 | Calculus and Analytic Geometry II |  |
| :---: | :---: | :---: |
| NUT SCI 212 | Science of Food Preparation |  |
| PHYSICS 201 | Principles of Physics I |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Upper-Level Courses |  | 35 |
| BIOLOGY 323 | Principles of Microbiology |  |
| BIOLOGY 324 | Principles of Microbiology Laboratory |  |
| CHEM 302 | Organic Chemistry I |  |
| CHEM 303 | Organic Chemistry II |  |
| CHEM 304 | Organic Chemistry Laboratory I |  |
| CHEM 305 | Organic Chemistry Laboratory II |  |
| CHEM 311 | Analytical Chemistry |  |
| CHEM 324 | Biophysical Chemistry |  |
| CHEM 325 | Biophysical Chemistry Laboratory |  |
| CHEM 330 | Biochemistry |  |
| CHEM 331 | Biochemistry Laboratory |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 312 | Quantity Food Production and Service |  |
| Electives (choose 4 credits): |  |  |
| CHEM 402 | Advanced Organic Chemistry |  |
| CHEM 403 | Advanced Organic Chemistry Laboratory |  |
| CHEM 410 | Inorganic Chemistry |  |
| CHEM 411 | Inorganic Chemistry Laboratory |  |
| CHEM 413 | Instrumental Analysis |  |
| CHEM 420 | Polymer Chemistry |  |
| CHEM 423 | Polymer Chemistry Laboratory |  |

## Total Credits

## Chemistry Curriculum Guides

The following are curriculum guides for a four-year Chemistry degree program and are subject to change without notice. Students should consult a Chemistry program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Students must complete requirements in one of the following areas of emphasis: (p. 89)
- General Chemistry
- Biochemistry
- Food Chemistry
- ACS Certified Chemistry
- ACS Certified Environmental Chemistry


## General Chemistry

An example: Four year plan for General Chemistry
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.
Course
Title
Credits
Freshman
Fall
CHEM 207 Laboratory Safety 1
CHEM $211 \quad$ Principles of Chemistry I 4
CHEM 213 Principles of Chemistry I Laboratory
MATH 202 Calculus and Analytic Geometry I

| First Year Seminar |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 13 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| CHEM 302 | Organic Chemistry 1 | 3 |
| CHEM 304 | Organic Chemistry Laboratory I | 1 |
| PHYSICS 201 | Principles of Physics I | 4 |
| PHYSICS 203 | Introductory Physics Lab I | 1 |
| PHYSICS 204 | Introductory Physics Lab II | 1 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 303 | Organic Chemistry II | 3 |
| CHEM 305 | Organic Chemistry Laboratory II | 1 |
| CHEM 311 | Analytical Chemistry | 4 |
| PHYSICS 202 | Principles of Physics II | 4 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| CHEM 320 | Thermodynamics and Kinetics | 3 |
| CHEM 322 | Thermodynamics and Kinetics Laboratory | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 321 | Structure of Matter | 3 |
| CHEM 323 | Structure of Matter Laboratory | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| CHEM 413 | Instrumental Analysis | 4 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 410 | Inorganic Chemistry (or other chemistry elective lecture) | 3 |
| CHEM 411 | Inorganic Chemistry Laboratory ( ${ }^{(0 r o t h e r ~ c h e m i s t r y ~ e l e c t i v e ~ l a b o r a t o r y) ~}$ | 1 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 13 |
|  | Total Credits | 120 |

## Biochemistry

An example: Four year plan for Biochemistry
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| First Year Seminar |  | 3 |
|  | Credits | 13 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
|  | Credits | 13 |


| Sophomore |  |
| :---: | :---: |
| Fall |  |
| CHEM 302 | Organic Chemistry I |
| CHEM 304 | Organic Chemistry Laboratory I |
| PHYSICS 201 | Principles of Physics I |
| PHYSICS 203 | Introductory Physics Lab I |
| MATH 260 | Introductory Statistics |
| General Ed |  |
|  | Credits |
| Spring |  |
| CHEM 303 | Organic Chemistry II |
| CHEM 305 | Organic Chemistry Laboratory II |
| PHYSICS 202 | Principles of Physics II |
| PHYSICS 204 | Introductory Physics Lab II |
| BIOLOGY 303 | Genetics |
| General Ed |  |
|  | Credits |




Senior
Fall





| Elective |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 330 | Biochemistry | 3 |
| CHEM 331 | Biochemistry Laboratory | 1 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
|  | Total Credits | 122 |

## ACS Certified Chemistry

An example: Four year plan for Chemistry - ACS Certified Chemistry
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Some upper level courses are only taught once every other year. Check with your advisor for course periodicity.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |


| Sophomore |
| :--- |
| Fall |
| CHEM 302 |

CHEM $304 \quad$ Organic Chemistry Laboratory I 1

MATH $209 \quad$ Multivariate Calculus 4
PHYSICS 201 Principles of Physics I 4
PHYSICS $203 \quad$ Introductory Physics Lab I 1
General Ed $\quad$ Credits 3

| Spring |  |  |
| :--- | :--- | :--- |
| CHEM 303 | Organic Chemistry II | 3 |
| CHEM 305 | Organic Chemistry Laboratory II | 1 |
| CHEM 311 | Analytical Chemistry | 4 |
| PHYSICS 202 | Principles of Physics II | 4 |
| PHYSICS 204 | Introductory Physics Lab II | 1 |
| General Ed |  | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Junior |  |  |
| :--- | :--- | :--- |
| Fall |  |  |
| CHEM 320 | Thermodynamics and Kinetics |  |
| CHEM 322 | Thermodynamics and Kinetics Laboratory | 1 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | $\mathbf{1 4}$ |


| Spring |  |  |
| :---: | :---: | :---: |
| CHEM 321 | Structure of Matter | 3 |
| CHEM 323 | Structure of Matter Laboratory | 1 |
| CHEM 330 | Biochemistry | 3 |
| CHEM 331 | Biochemistry Laboratory | 1 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 14 |
| Senior |  |  |
| Fall |  |  |
| CHEM 413 | Instrumental Analysis | 4 |
| CHEM 496 | Project/Research Assistantship (can be taken over multiple semesters) | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 410 | Inorganic Chemistry | 3 |
| CHEM 411 | Inorganic Chemistry Laboratory | 1 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 13 |
|  | Total Credits | 120 |

## ACS Certified Environmental Chemistry

An example: Four year plan for Chemistry - ACS Certified Environmental Chemistry
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Some upper level courses are only taught every other year. Check with your advisor for course periodicity.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 | Principles of Chemistry 1 | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| First Year Seminar |  | 3 |
|  | Credits | 13 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| ENV SCI 102 | Introduction to Environmental Sciences | 3 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| CHEM 302 | Organic Chemistry I | 3 |
| CHEM 304 | Organic Chemistry Laboratory I | 1 |
| MATH 260 | Introductory Statistics | 4 |
| PHYSICS 201 | Principles of Physics I | 4 |
| PHYSICS 203 | Introductory Physics Lab I | 1 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 303 | Organic Chemistry II | 3 |
| CHEM 305 | Organic Chemistry Laboratory II | 1 |
| CHEM 311 | Analytical Chemistry | 4 |
| PHYSICS 202 | Principles of Physics II | 4 |


| PHYSICS 204 | Introductory Physics Lab II | 1 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| CHEM 320 | Thermodynamics and Kinetics | 3 |
| CHEM 322 | Thermodynamics and Kinetics Laboratory | 1 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| CHEM 321 | Structure of Matter | 3 |
| CHEM 323 | Structure of Matter Laboratory | 1 |
| CHEM 330 | Biochemistry | 3 |
| CHEM 331 | Biochemistry Laboratory | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Senior |  |  |
| Fall |  |  |
| CHEM 413 | Instrumental Analysis | 4 |
| GEOSCI 202 | Physical Geology | 4 |
| CHEM 496 | Project/Research Assistantship (can be taken over multiple semesters) | 3 |
| BIOLOGY 323 | Principles of Microbiology | 3 |
| BIOLOGY 324 | Principles of Microbiology Laboratory | 1 |
|  | Credits | 15 |
| Spring |  |  |
| CHEM 410 | Inorganic Chemistry | 3 |
| CHEM 411 | Inorganic Chemistry Laboratory | 1 |
| ENV SCI 305 | Environmental Fate and Transport | 4 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 17 |
|  | Total Credits | 120 |

## Communication

## Bachelor of Science

The Communication program offers contemporary communication studies emphasizing comprehensive understanding of communication. Students come to understand how communication happens; how messages are put into visual and verbal codes; how messages are filtered through various media; how messages are interpreted and affect different audiences in different ways and in different contexts; and how students construct those contexts.

New information technologies tend to merge media. A major or minor in Communication provides the kind of integrative knowledge that is required for professional careers in the field.

Internships in Communication provide qualified students with opportunities for faculty-supervised experience in professional settings outside the classroom. In addition, several Communication courses involve students in research projects in the community.

Communication graduates have entered a wide variety of academic and professional areas: news reporting, photojournalism, broadcast journalism, television production, printing and publications, advertising, sales and marketing, management consulting, technical writing and editing, public relations, and government service, as well as graduate study in information science, library science, journalism, media studies, and telecommunications.

Communication offers eight areas of emphasis.

- Students in generalist ...
- Students in health communication study internal and external communications in the healthcare environment. Students will learn how to (1) improve provider/patient interactions, (2) enhance communication within healthcare organizations, and (3) how to inform the public about healthcare issues, threats, and crises.
- Students in journalism will develop writing and editing skills, including video reporting/editing skills; the ability to do in-depth research and reporting, a concern for people, a strong sense of autonomy, and a well-rounded understanding of important issues in their field through this program and through a liberal arts education. Students will also gain hands-on experience in journalism through participation in on-campus publications and/or through outside internships.
- Students in mass media need more than just knowledge of production techniques. Professional advancement requires skills in writing, editing, advertising and sales, market and audience research, as well as knowledge of new media and their impact on society and culture.
- Students in organizational communication develop basic communication skills needed in organizations, such as speaking, interviewing, meeting management, and problem solving using different communication technologies for different purposes. They also learn about sources of communication problems in organizations, strategies for discovering and solving these problems, and current theories of organizational communication.
- Students in public relations complete requirements that reflect the demand for graduates who can write well, are fully acquainted with the wide range of available modes of communication (graphics, print, broadcast, oral discourse, digital/internet, and their many combinations), and are particularly skillful in at least one of them. Students also learn how to respond to common PR challenges such as announcing changes, promoting events, and responding to crises.
- Students in social media strategy focus on the strategies and tactics needed to advance organizational goals. Students will be prepared for longterm careers working as social media managers, specialists, curators, and content providers.
- Students in sports communication focus on the unique dynamics associated with sports media, organizations, teams, and players. Students will be prepared for long-term careers working as sport reporters, broadcasters, media specialists, or public relations professionals.


## Major Area of Emphasis (p. 127)

Students must complete requirements in one of the following areas of emphasis: (p. 127)

- Generalist (p. 127)
- Health Communication (p. 127)
- Journalism (p. 127)
- Mass Media (p. 127)
- Organizational Communication (p. 127)
- Public Relations (p. 127)
- Social Media Communication (p. 127)
- Sports Communication (p. 127)


## Minor

Code Title Credits
Supporting Courses ${ }^{1} 18$
Core courses
COMM 102
COMM 133
COMM 185
COMM 205
COMM 290
COMM 166 or COMM 237
Upper-Level Courses ${ }^{1}$
Introduction to Communication
Fundamentals of Public Address
Business and Media Writing
Elements of Media
Communication Problems and Research Methods
Fundamentals of Interpersonal Communication
Small Group Communication

Choose five upper-level elective courses in Communication ${ }^{2}$

## Total Credits

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for 1-12 credits but only 3 credits maximum of internship can be used to meet requirements of a minor in Communication.

## Curriculum Guide

An example: Four year plan for Communications Major with Mass Media Emphasis
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| COMM 102 | Introduction to Communication | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMM 133 | Fundamentals of Public Address | 3 |
| COMM 166 or COMM 237 | Fundamentals of Interpersonal Communication or Small Group Communication | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| COMM 205 | Elements of Media | 3 |
| COMM 290 | Communication Problems and Research Methods | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMM 185 | Business and Media Writing | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  |  |
|  | Credits | 12 |
| Junior |  |  |
| Fall |  |  |
| COMM 302 | News Reporting and Writing | 3 |
| COMM 335 | Organizational Communication | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMM 306 | Radio Broadcasting | 3 |
| COMM 308 | Information and Communication Technologies | 3 |
| COMM 380 | Communication Law | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Upper Level Comm Course |  | 3 |
|  | Credits | 18 |
| Senior |  |  |
| Fall |  |  |
| COMM 307 | Video Production | 3 |
| COMM 309 | Mass Media Advertising | 3 |
| COMM 497 | Internship (Or Upper Level Comm Course) | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMM 430 | Information, Media and Society | 3 |
| COMM 477 | Social Media Strategies | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |

Elective

## Faculty

Bryan James Carr; Professor; Ph.D., University of Oklahoma
Phillip G Clampitt; Professor; Ph.D., University of Kansas, chair
Katie Turkiewicz; Associate Professor; Ph.D., University of Wisconsin - Milwaukee
Justin Kavlie; Assistant Professor; Ph.D., University of North Carolina
Joseph Yoo; Assistant Professor; Ph.D., University of Texas
Mary D Bina; Associate Teaching Professor; B.F.A., University of Wisconsin - Milwaukee
Shauna M Froelich; Associate Teaching Professor; JD, Marquette University

## Communication Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Generalist
- Health Communication
- Journalism
- Mass Media
- Organizational Communication
- Public Relations
- Social Media Communication
- Sports Communication


## Generalist

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses ${ }^{1}$ |  | 18 |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| or COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 30 |
| Select 30 credits from any 300 and 400 level COMM courses |  |  |
| Total Credits |  | 48 |

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
Health Communication

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | $\mathbf{1 8}$ |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |


| or COMM 237 | Small Group Communication |  |
| :---: | :---: | :---: |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| Upper-Level Courses |  | 30 |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 308 | Information and Communication Technologies |  |
| COMM 335 | Organizational Communication |  |
| COMM 370 | Health Communication Campaigns and Strategies |  |
| COMM 380 | Communication Law |  |
| COMM 430 | Information, Media and Society |  |
| COMM 470 | Health Communication and Technology |  |
| COMM 480 | Cases in Communications and Media Management |  |
| Choose 6 credits of upper level Communication electives |  |  |

Total Credits ..... 48

## Journalism

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses ${ }^{1}$ |  | 18 |
| Core Courses |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM 166 or COMM 237 | Fundamentals of Interpersonal Communication Small Group Communication |  |
| Upper-Level Courses ${ }^{1}$ |  | 30 |
| COMM 302 | News Reporting and Writing |  |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 307 | Video Production |  |
| COMM 380 | Communication Law |  |
| COMM 336 | Theories of the Interview |  |
| COMM 378 | Documentary Video Production |  |
| COMM 396 | Advanced Reporting |  |
| COMM 425 | Digital Journalism |  |
| COMM 474 | Media Workshop |  |
| Choose one upper-le | course in Communication ${ }^{2}$ |  |

Total Credits
1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for 1-12 credits but only 3 credits maximum of internship can be used to meet requirements of a major in Communication.

## Mass Media

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses ${ }^{1}$ |  |
| Core Courses |  |
| COMM 102 | Introduction to Communication |
| COMM 133 | Fundamentals of Public Address |
| COMM 185 | Business and Media Writing |
| COMM 205 | Elements of Media |
| COMM 290 | Communication Problems and Research Methods |


| COMM 166 | Fundamentals of Interpersonal Communication |
| :--- | :--- |
| or COMM 237 | Small Group Communication |
| Upper-Level Courses ${ }^{\mathbf{1}}$ |  |
| COMM 302 | News Reporting and Writing |
| COMM 306 | Radio Broadcasting |
| COMM 307 | Video Production |
| COMM 309 | Mass Media Advertising |
| COMM 378 | Documentary Video Production |
| COMM 380 | Communication Law |
| COMM 430 | Information, Media and Society |
| COMM 477 | Social Media Strategies |
| Choose two upper-level Communication elective courses (totaling 6 credits) ${ }^{2}$ |  |

## Total Credits

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for 1-12 credits but only 3 credits maximum of internship can be used to meet requirements of a major in Communication.

## Organizational Communication

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses ${ }^{1}$ |  | 18 |
| Core Courses |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM 166 or COMM 237 | Fundamentals of Interpersonal Communication Small Group Communication |  |
| Upper-Level Courses ${ }^{1}$ |  | 30 |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 308 | Information and Communication Technologies |  |
| COMM 333 | Persuasion and Argumentation |  |
| COMM 335 | Organizational Communication |  |
| COMM 336 | Theories of the Interview |  |
| COMM 370 | Health Communication Campaigns and Strategies |  |
| COMM 380 | Communication Law |  |
| COMM 477 | Social Media Strategies |  |
| COMM 480 | Cases in Communications and Media Management |  |
| Choose one upper-le | course in Communication ${ }^{2}$ |  |

Total Credits

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for $1-12$ credits but only 3 credits maximum of internship can be used to meet requirements of a major in Communication.

## Public Relations

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses ${ }^{1}$ |  |
| Core Courses |  |
| COMM 102 | Introduction to Communication |
| COMM 133 | Fundamentals of Public Address |
| COMM 185 | Business and Media Writing |
| COMM 205 | Elements of Media |


| COMM 290 | Communication Problems and Research Methods |
| :--- | :--- |
| COMM 166 |  |
| or COMM 237 | Fundamentals of Interpersonal Communication |
| Upper-Level Courses <br> COMM 302 | Small Group Communication |

## Social Media Communications

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 18 |
| Core Courses ${ }^{1}$ |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM 166 or COMM 237 | Fundamentals of Interpersonal Communication Small Group Communication |  |
| Upper-Level Courses |  | 30 |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 307 | Video Production |  |
| COMM 308 | Information and Communication Technologies |  |
| COMM 317 | How to Create Great Social Media Content |  |
| COMM 335 | Organizational Communication |  |
| COMM 336 | Theories of the Interview |  |
| COMM 380 | Communication Law |  |
| COMM 477 | Social Media Strategies |  |
| INFO SCI 302 | Introduction to Data Science |  |
| Any Upper-Level CO | ctive (Totaling 3 Credits) ${ }^{2}$ |  |

## Total Credits

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for $1-12$ credits but only 3 credits maximum of internship can be used to meet requirements of a major in Communication.

## Sports Communication

Code Title

| COMM 133 | Fundamentals of Public Address |  |
| :---: | :---: | :---: |
| COMM 185 | Business and Media Writing |  |
| COMM 205 | Elements of Media |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM 166 or COMM 237 | Fundamentals of Interpersonal Communication Small Group Communication |  |
| Upper-Level Courses |  | 30 |
| COMM 302 | News Reporting and Writing |  |
| COMM 304 | Sports, Media, and Society |  |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 307 | Video Production |  |
| COMM 317 | How to Create Great Social Media Content |  |
| COMM 380 | Communication Law |  |
| COMM 382 | Public Relations Campaigns |  |
| COMM 390 | Sports Writing, Promotion, and Public Relations |  |
| COMM 480 <br> or COMM 477 | Cases in Communications and Media Management Social Media Strategies |  |
| Any Upper-Level COMM or IS Elective (totaling 3 Credits) ${ }^{2}$ |  |  |

## Total Credits

1 Note: 5 of the 6 supporting courses must be completed before taking any upper-level courses.
2 Internships are available for 1-12 credits but only 3 credits maximum of internship can be used to meet requirements of a major in Communication.

## Community Health Education

## (Bachelor of Science)

This 120-credit program, which aligns with the National Commission for Health Education Credentialing competencies, will create new career opportunities for students and partnerships with the community; opportunities and partnerships consistent with the University's Strategic Plan. As part of the Health Professions and Related Programs array, UW-Green Bay has numerous programs in this specialized area so, with the exception of five courses, the major is built from existing courses in related areas (i.e., sciences, health management, social work). Additionally, 26 credits within the supporting and major courses cover all but 18 credits of general education requirements.
The program utilizes high impact practices including a semester-long practicum at a community agency. Program graduates will be able to assess, plan, implement, and evaluate health education programs for a variety of populations.

Students entering the major may be new freshmen who come to UW-Green Bay because of this major or transfer students from other post-secondary institutions who find this major appealing. The Community Health Education program will not use a cohort model, block requirement plan, or seek accreditation. The UW-Green Bay program will offer students a curriculum grounded on understanding the intersection of governmental and nongovernmental healthcare organizations and how economics and policy influence health. The Community Health Education major will be an option for students who are not accepted into the Nursing program or prefer a non-clinical program.

As more organizations and communities focus on wellness and prevention, and with growth in the health industry, community health educators are sought after and in high demand. Graduates with a major in community health education find jobs in the health care industry (e.g., hospitals, public health departments, health insurance), non-profit organizations, government agencies, and private businesses.
According to the Bureau of Labor Statistics, overall employment of community health educators is projected to grow $11 \%$ from 2018 to 2028 , which is much faster than the average for all occupations.

## Student Learning and Program Outcomes

Program outcomes align with the NCHEC ${ }^{1}$ responsibilities, competencies, and sub-competencies for health education specialist practice.
By the end of the program, students will:

1. Understand the structure of contemporary healthcare including public, non-governmental, and health systems.
2. Use an interdisciplinary approach to addressing complex population health issues and factors that influence health.
3. Apply the steps of assessment, planning, implementation, and evaluation in the design of community health campaigns.
4. Gather, analyze, and synthesize multiple sources of community/public information.
5. Identify and engage priority populations, partners, and stakeholders to design and implement health education programming.
6. Apply established ethical principles and principles of cultural humility, inclusion, and diversity in the development of community/population health campaigns.

1 National Commission for Health Education Credentialing (NCHEC) (n.d.). Responsibilities and Competencies for Health Education Specialists. Retrieved from https://www.nchec.org/responsibilities-and-competencies (https://www.nchec.org/responsibilities-and-competencies/)

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 18 |
| BIOLOGY 201 \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| COMM 133 or COMM 166 | Fundamentals of Public Address <br> Fundamentals of Interpersonal Communication |  |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| PSYCH 205 | Social Science Statistics |  |
| Lower-Level Courses |  | 13 |
| HUM BIOL 215 | Personal Health and Wellness |  |
| HUM BIOL 240 | Anatomy and Physiology |  |
| NURSING 200 | Fundamentals of Healthcare Terminology |  |
| NUT SCI 202 | Ethnic Influences on Nutrition |  |
| Upper-Level Courses |  | 43 |
| CHE 310 | Foundations of Community Health Education |  |
| CHE 320 | Methods and Strategies for Community Health Education |  |
| CHE 330 | Program Planning and Evaluation in Community Health Education |  |
| CHE 440 | Capstone Seminar |  |
| CHE 450 | Community Health Education Field Practicum |  |
| HLTH MGT 301 | Health Care Systems |  |
| HLTH MGT 302 | Healthcare Management |  |
| HLTH MGT 401 | Healthcare Economics \& Policy |  |
| HLTH MGT 402 | Population Healthcare Management |  |
| HUM BIOL 322 | Epidemiology |  |
| NURSING 340 | Quality Improvement |  |
| PSYCH 310 | Drugs and Behavior |  |
| SOC WORK 344 | Grant Writing for Success |  |
| Upper-Level Elective: (choose 3 credits) |  | 3 |
| COMM 370 | Health Communication Campaigns and Strategies |  |
| COMM 470 | Health Communication and Technology |  |
| HIMT 440 | Group Processes, Team Building and Leadership |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| PUB ADM 344 | Leadership in Organizations |  |
| SOC WORK 340 | Strengths-Based Group Facilitation |  |

Total Credits

## Curriculum Guide

An example four-year plan. This plan is a representation. Consult with your advisor.

120 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| First Year Seminar |  | 3 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| CHEM 207 | Laboratory Safety | 1 |
| PSYCH 102 | Introduction to Psychology | 3 |
| GEN EDUC - Humanities |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| HUM BIOL 240 | Anatomy and Physiology | 4 |
| WF 105 | Research and Rhetoric | 3 |
| GEN EDUC - Fine Arts |  | 3 |
| GEN EDUC - Natural Science |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |




| Spring |  |
| :---: | :---: |
| CHE 330 | Program Planning and Evaluation in Community Health Education |
| HLTH MGT 401 | Healthcare Economics \& Policy |
| HLTH MGT 402 | Population Healthcare Management |
| PSYCH 310 | Drugs and Behavior |
| SOC WORK 344 | Grant Writing for Success |


| Senior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| CHE 320 | Methods and Strategies for Community Health Education |  |
| CHE Elective Course |  |  |
| GEN EDUC - Humanities |  |  |
| GEN EDUC - Social Sciences |  |  |
| Elective |  |  |
|  | Credits |  |
| Spring |  |  |
| CHE 440 | Capstone Seminar |  |


| CHE 450 | Community Health Education Field Practicum | 9 |
| :--- | :--- | ---: |
|  | Credits | $\mathbf{1 2}$ |
|  | Total Credits | $\mathbf{1 2 0}$ |

## Faculty

Christine L Vandenhouten; Professor; Ph.D., Marquette University*
Heidi Neverman; Assistant Teaching Professor; M.S.N., University of Mary

## Computer Science

## (Bachelor of Science)

Students interested in Computer Science have several options, including an emphasis in Cybersecurity, a more traditional emphasis in Software Engineering, and a minor. The two Computer Science emphases offer an expanding array of theoretical and applied work that prepares students to enter the job market or pursue graduate studies. The minor in Computer Science offers lower-level basic skills and an upper-level flexible approach that can be used to augment many majors, from business to the design arts and humanities.

The field of computer science is undergoing great changes as technology advances and the need for computer software increases. Students entering this field must not see a bachelor's degree in computer science as the culmination of study in the field. Rather, they must see it as the first step in a continuing education process that will last as long as they choose to stay in the field. The goal of the Computer Science major is to provide students with a strong foundation upon which they can continue to build as the field changes. Students can receive instruction in areas such as software design and project management, object-oriented programming, design of algorithms, operating systems, database management systems, neural networks, computer graphics, network programming, cybersecurity, and more.

Computer science courses are often mistaken for programming courses. In reality, they require much more than learning and mastering a programming language. The heart of software design is not the language, but the ability to define a problem, analyze various components, and project and evaluate potential solutions, all of which must be scalable and robust. This must also be done under the constraint that they are subject to limitations inherent in a given computer. Students must understand that in industry there must be more than just a working program. Good software must not only work but must be fully documented, clearly written, easily modifiable to meet changing and more extensive requirements, and engineered for stability, security, and correctness.

Equally important, the program provides a theoretical base for computer science and helps students understand there is more to computer science than software development. Students develop skills they can use upon graduation but they must be prepared to enter a field which is both diverse and rapidly changing and they must be able to adapt to new technologies. This requires a solid theoretical foundation with knowledge of how computers work and how they carry out tasks specified in applications software. It requires that students think beyond writing software and explore areas such as neural networks, computer graphics, algorithm analysis, or scientific applications. This knowledge is an important ingredient to professional development as it gives them the tools they need to analyze efficiency and evaluate various programming and data design options and to see the possible futures as computer science evolves. Simply providing them with skills necessary to enter the computing profession is not sufficient. Each student must be prepared to apply what he or she has learned in order to adapt to the inevitable changes that will occur. Each must also have the ability to learn new ideas and apply them.

Graduates of the Computer Science program are prepared to continue their education at the graduate level or to apply for entry-level positions in industry. Typical entry-level jobs are programmer or programmer/analyst positions.

All registered students have access to the University's computing facilities. Student accounts allow students to access a wide variety of both PCcompatible and Macintosh computers, Linux and database servers (for select courses), various software developer environments, and of course the internet. Labs are open seven days per week and are staffed by consultants who provide assistance in using the facilities. Classrooms also have network connections which allow demonstrations of software and internet applications to be integrated with classroom lectures. There is also a Computer Science teaching lab with 25 workstations and display facilities that support Computer Science instruction.

Computer Science courses have a strict prerequisite structure. It is imperative that students learn what courses are prerequisites for others and when they are offered. Students are strongly encouraged to talk to an adviser very early in their college career.

Students seeking information on teacher certification should contact the Education Office.

## Major Area of Emphasis (p. 137)

Students must complete requirements in one of the following areas of emphasis: (p. 137)

- Cybersecurity (p. 137)
- Software Engineering (p. 137)


## Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | 9 |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |  |
| COMP SCI 240 | Discrete Mathematics |  |
| COMP SCI 256 | Introduction to Software Design | $\mathbf{1 3 - 1 5}$ |
| Upper-Level Courses |  |  |
| COMP SCI 316 | Advanced Software Design |  |
| Choose three upper-level Computer Science courses |  |  |

## Curriculum Guide

## An example: Four-year plan for Computer Science Major

## 120 credits necessary to graduate.

Students must complete requirements in one of the following areas of emphasis: (p. 137)

- Cybersecurity
- Software Engineering (p. 137)

The plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies | 3 |
| COMP SCI 207 | Programming in C | 3 |
| First Year Seminar |  | 3 |
| COMM 133 or COMM 166 or COMM 237 | Fundamentals of Public Address <br> or Fundamentals of Interpersonal Communication or Small Group Communication | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMP SCI 203 | Introduction to Python Programming | 3 |
| COMP SCI 256 | Introduction to Software Design | 3 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| General Ed |  | 3 |
|  | Credits | 13 |
| Sophomore |  |  |
| Fall |  |  |
| COMP SCI 221 | Database Design \& Management | 3 |
| COMP SCI 240 | Discrete Mathematics | 3 |
| COMP SCI 316 | Advanced Software Design | 3 |
| ENGR 236 | Technical Writing | 3 |
| MATH 260 | Introductory Statistics | 4 |
|  | Credits | 16 |
| Spring |  |  |
| COMP SCI 231 | Introduction to IT Operations | 3 |
| COMP SCI 253 | Digital Logic Fundamentals | 3 |
| COMP SCI 293 | Cloud Computing | 3 |
| COMP SCI 351 | Data Structures | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| COMP SCI 292 | Introduction to Mobile Platforms and Apps | 3 |
| COMP SCI 353 | Computer Architecture and Organization | 3 |
| MATH 320 | Linear Algebra and Matrix Theory | 4 |


| Software Engineering or Cybersecurity Required/Elective Course |  | 3 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| COMP SCI 371 | Advanced Object-Oriented Design | 3 |
| COMP SCI 451 | Database Systems and Big Data Processing | 3 |
| Software Engineering or Cybersecurity Required/Elective | Course | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| COMP SCI 464 | Artificial Intelligence | 3 |
| Software Engineering or Cybersecurity Required/Elective Course |  | 3 |
| Software Engineering or Cybersecurity Required/Elective Course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMP SCI 452 | Operating Systems Using Linux | 3 |
| COMP SCI 465 | Machine Learning | 3 |
| Software Engineering or Cybersecurity Required/Elective Course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| - | Total Credits | 120 |

## Software Engineering Required/Elective Courses are listed below:

## Software Engineering Required Courses:

1. Theory of Programming Languages (COMP SCI 357)
2. Software Engineering (COMP SCI 372)
3. Theory of Algorithms (COMP SCI 450)

## Software Engineering Elective Courses (Choose any two from the following list):

1. Compilers (COMP SCI 368)
2. Web Programming (COMP SCI 339)
3. Numerical Methods for Computer Science (COMP SCI 340)
4. Internship (COMP SCI 497)

## Cybersecurity Required/Elective Courses are listed below:

Cybersecurity Required Courses:

1. Information Assurance and Security (COMP SCI 361)
2. Software Security (COMP SCI 471)
3. Capstone Essay in Computer Science (COMP SCI 490)

Cybersecurity Elective Courses (Choose any two from the following list):

1. Data Communication and Computer Networks (COMP SCI 358)
2. Network Security (COMP SCI 472)
3. Introduction to Cryptography (COMP SCI 475)
4. Internship (COMP SCI 497)

## Faculty

## Faculty

Md Maruf Hossain; Professor; Ph.D., University of Memphis, Chair*

Iftekhar Anam; Associate Professor; Ph.D., University of Memphis
Tanim Ahsan; Associate Professor; Ph.D., Marquette University
Nazim Choudhury; Assistant Professor; Ph.D., University of Sydney, Australia
Omar Meqdadi, Assistant Professor; Ph.D., Kent State University
Sayeda Farzana Aktar, Assistant Professor; Ph.D., Marquette University
Sarwar Murshed, Assistant Professor; Ph.D., Clarkson University
Prakash Duraisamy; Assistant Professor; Ph.D., University of North Texas

## Computer Science Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Cybersecurity
- Software Engineering


## Cybersecurity

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses (Non-CS classes) |  | 18 |
| ENGR 236 | Technical Writing |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 260 | Introductory Statistics |  |
| MATH 320 | Linear Algebra and Matrix Theory |  |
| Choose 1 from the following 3 COMM courses |  |  |
| COMM 133 | Fundamentals of Public Address |  |
| or COMM 166 | Fundamentals of Interpersonal Communication |  |
| or COMM 237 | Small Group Communication |  |
| CS Fundamental Courses |  | 30 |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |  |
| COMP SCI 203 | Introduction to Python Programming |  |
| COMP SCI 207 | Programming in C |  |
| COMP SCI 221 | Database Design \& Management |  |
| COMP SCI 231 | Introduction to IT Operations |  |
| COMP SCI 240 | Discrete Mathematics |  |
| COMP SCI 253 | Digital Logic Fundamentals |  |
| COMP SCI 256 | Introduction to Software Design |  |
| COMP SCI 292 | Introduction to Mobile Platforms and Apps |  |
| COMP SCI 293 | Cloud Computing |  |
| CS Advanced Courses |  | 24 |
| COMP SCI 316 | Advanced Software Design |  |
| COMP SCI 351 | Data Structures |  |
| COMP SCI 353 | Computer Architecture and Organization |  |
| COMP SCI 371 | Advanced Object-Oriented Design |  |
| COMP SCI 451 | Database Systems and Big Data Processing |  |
| COMP SCI 452 | Operating Systems Using Linux |  |
| COMP SCI 464 | Artificial Intelligence |  |
| COMP SCI 465 | Machine Learning |  |
| Cybersecurity Emphasis Required \& Electives Courses |  | 15 |
| Cybersecurity Required Courses |  |  |
| COMP SCI 361 | Information Assurance and Security |  |


| COMP SCI 471 | Software Security |
| :--- | :--- |
| COMP SCI 490 | Capstone Essay in Computer Science |
| Cybersecurity Elective Courses (Choose any two): |  |
| COMP SCI 358 | Data Communication and Computer Networks |
| COMP SCI 472 | Network Security |
| COMP SCI 475 | Introduction to Cryptography |
| COMP SCI 497 | Internship |

## Total Credits

## Software Engineering

| Code | Title |
| :--- | :--- |
| Supporting Courses (Non-CS classes) |  |
| ENGR 236 | Technical Writing |
| MATH 202 | Calculus and Analytic Geometry I |
| MATH 260 | Introductory Statistics |
| MATH 320 | Linear Algebra and Matrix Theory |
| Choose 1 from the following 3 COMM courses |  |
| COMM 133 Fundamentals of Public Address <br> or COMM 166 Fundamentals of Interpersonal Communication <br> or COMM 237 Small Group Communication |  |


| CS Fundamental Courses |  |
| :--- | :--- |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |
| COMP SCI 203 | Introduction to Python Programming |
| COMP SCI 207 | Programming in C |
| COMP SCI 221 | Database Design \& Management |
| COMP SCI 231 | Introduction to IT Operations |
| COMP SCI 240 | Discrete Mathematics |
| COMP SCI 253 | Digital Logic Fundamentals |
| COMP SCI 256 | Introduction to Software Design |
| COMP SCI 292 | Introduction to Mobile Platforms and Apps |
| COMP SCI 293 | Cloud Computing |

CS Advanced Courses 24
COMP SCI 316 Advanced Software Design
COMP SCI 351 Data Structures
COMP SCI 353 Computer Architecture and Organization
COMP SCI 371 Advanced Object-Oriented Design
COMP SCI $451 \quad$ Database Systems and Big Data Processing
COMP SCI 452 Operating Systems Using Linux
COMP SCI 464 Artificial Intelligence
COMP SCI $465 \quad$ Machine Learning
Software Engineering Emphasis Required \& Electives Courses 15
Software Engineering Required Courses
COMP SCI 357 Theory of Programming Languages
COMP SCI 372 Software Engineering
COMP SCI 450 Theory of Algorithms

| Software Engineering Elective Course (Choose any two) |  |
| :--- | :--- |
| COMP SCI 339 | Web Programming |
| COMP SCI 340 | Numerical Methods for Computer Science |
| COMP SCI 368 | Compilers |
| COMP SCI 497 | Internship |

## Criminal Justice

Criminal justice is an interdisciplinary minor that provides students with the opportunity to explore and analyze important community issues that will help enhance their civic responsibility and their ability to improve the current criminal justice system. Additionally, the program will enhance students' critical analysis skills and include opportunities to explore issues such as diversity and inclusion.

Students will begin by taking supporting courses in Public Administration, Sociology, and/or Political Science that will lay the groundwork for more advanced criminal justice course work. Core upper-level courses will help develop their ability to comprehend, synthesize, and critically analyze scientific evidence. In addition, these courses will enhance their abilities to critically engage in theory, practice, and policy in general, laying the groundwork for more advanced analysis in upper-level courses focusing on criminal justice administration and theory. Nine credits of upper electives will enable students to study focused topics in criminal justice and criminology in greater depth. A majority of the coursework will address and engage students in issues of equity and inclusion within the criminal justice system.

Overall, a minor in Criminal Justice is designed for students seeking careers in the public and nonprofit sectors such as probation and parole, law enforcement, pre-law, victim advocacy, and court services, and it is available to students majoring in any discipline at the University of Wisconsin-Green Bay. The program is housed within the Department of Public and Environmental Affairs under the oversight of the Public Administration program, though the curriculum is supported by eight different programs.

## Minor



## Total Credits

## Faculty

Hye-Kyung Kim; Professor; Ph.D., Marquette University
Andrew W Austin; Associate Professor; Ph.D., University of Tennessee

## Christopher Kleps; Assistant Professor, Ohio State University

## Democracy and Justice Studies

(Bachelor of Arts)
Democracy and Justice Studies explores diverse ideals and practices of democracy and justice in the United States and the world though interdisciplinary social and historical studies. Democracy and Justice Studies students look at how people past and present have sought in various ways to sustain and change political, economic, cultural, and social orders. We ask why and how societies develop and whether their political, economic, cultural and social relations and activities promote justice, freedom, equality, and democracy. By cultivating critical thinking and problem-focused thinking, we enable students to become engaged citizens and professionals.

Democracy and Justice Studies encourages students to put democracy and justice into action in the classroom, in internships, in research projects, in their volunteer lives, and in their eventual career choices. Along with substantive training in current and past social and political issues, students learn skills such as digital and textual literacy, the ability to express arguments and ideas clearly in speech and writing, critical thinking, and cultural competence. This program thus offers wide-ranging educational challenges and provides students with broadly applicable learning experiences useful for many career paths in the public, private and non-profit sectors. Democracy and Justice Studies is encouraged and appropriate for individuals interested in graduate work in the social sciences and humanities, law school, journalism, international business, and a variety of careers related to community development, social justice, social and environmental activism, women's and gender equity, and other social issues.

Graduates work in a wide range of careers including business, domestic and international development, education, non-profit work, journalism, law and criminal justice, library science, museum administration, philanthropy, and politics. Some have pursued advanced studies in fields such as anthropology, area studies, criminal justice, economics, history, international relations, law, library science, philosophy, political science, sociology, theology and women's and gender studies.

Majors select one or more areas of emphasis from among the following:
American Studies addresses historical and contemporary political problems, public issues, social criticism and strategies for change in the United States.

Criminal Justice considers the development of the institutions, ideas and processes of the criminal justice system, including questions of freedom, social control, punishment and inequality.
U.S. and the World focuses on the influence of the United States and essential American ideals, including democracy, equality, and social justice, abroad.

Legal Studies examines law and legal systems past and present, both in the United States and around the world, and their relationship to justice and democracy.

Women's and Gender Studies explores historical and contemporary perspectives on women and gender, emphasizing the ways varied and changing gender roles affect economic and social opportunity.

Students seeking a major or minor in Democracy and Justice Studies may choose to combine their programs with another field of study. Among fields most relevant are, business, communication, economics, education, environmental policy and planning, ethnic studies, First Nations studies, global studies, history, human development, journalism, political science, psychology, social work, sociology, urban and regional studies, and women's and gender studies.

We encourage students to study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/

## Major Area of Emphasis (p. 141)

Students must complete requirements in one of the following areas of emphasis: (p. 141)

- Criminal Justice (p. 141)
- Global Democracy
- Legal Studies (p. 141)
- Social Justice (p. 141)
- Social Studies Education


## Faculty

Ekaterina M Levintova; Professor; Ph.D., Western Michigan University

Jon K Shelton; Professor; Ph.D., University of Maryland, chair

Andrew W Austin; Associate Professor; Ph.D., University of Tennessee
Eric J Morgan; Associate Professor; Ph.D., University of Colorado at Boulder
Kimberley A Reilly; Associate Professor; Ph.D., University of Chicago
Nolan Bennett; Assistant Professor; Ph.D., Cornell University

## Democracy and Justice Studies Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Criminal Justice
- Global Democracy
- Legal Studies
- Social Justice
- Social Studies Education


## Criminal Justice

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| DJS 101 | Introduction to Democracy and Justice Studies |  |
| DJS 204 | Freedom and Social Control |  |
| POL SCI 101 | American Government and Politics |  |
| Choose one of the following supporting courses: |  |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| Choose two of the following elective courses: |  |  |
| Students can also choose HISTORY 205, HISTORY 206, or HISTORY 207 in this category if not used for one of the requirements above |  |  |
| COMM SCI 200 | Civic Scholars Practicum |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| DJS 221 | Law and Equality in Historical Perspective |  |
| PHILOS 102 | Contemporary Ethical Issues |  |
| POL SCI 100 | Global Politics and Society |  |
| PUB ADM 215 | Introduction to Public Administration |  |
| SOCIOL 246 | Juvenile Delinquency |  |
| SOCIOL 101 | Introduction to Sociology |  |
| WOST 201 | Introduction to LGBTQ Studies |  |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |  |
| Choose one of the following Research Skills courses: |  |  |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM SCI 301 | Foundations for Social Research |  |
| HISTORY 290 | The Craft of History |  |
| Upper-Level Courses |  | 24 |
| DJS 303 | Criminal Justice Process |  |
| DJS 330 | Prison and Society |  |
| DJS 363 | Topics in Democracy and Justice |  |
| DJS 470 | Senior Seminar in Democracy and Justice Studies |  |
| SOCIOL 404 | Criminology |  |

Choose one of the following upper level courses:

| DJS 361 | Historical Perspectives on American Democracy |
| :--- | :--- |
| POL SCI 340 | Political Theory |
| POL SCI 349 | American Political Thought |

## Choose two of the following elective courses:

| Students can also choose DJS 361, POL SCI 340, or POL SCI 349 in this category if not used to fulfill the category above |  |
| :--- | :--- |
| DJS 320 | Constitutional Law |
| DJS 325 | Law and Society |
| DJS 348 | Gender and the Law |
| DJS 362 | Power and Change in America |
| DJS 400 | Mentoring for Equity and Inclusion |
| DJS 497 | Internship |
| DJS 498 | Independent Study |
| DJS 499 | Travel Course |
| FNS 392 | First Nations Justice and Tribal Governments |
| HISTORY 340 | Topics in African American History When covering crime and punishment (see DJS advisor) |
| HISTORY 353 | The U.S. and the World |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 402 | America in the Twentieth Century |
| PHILOS 326 | Philosophy, Politics and Law |
| POL SCI 312 | Community Politics |
| SOCIOL 303 | Race and Ethnic Relations |
| SOCIOL 307 | Social Theory |
| SOCIOL 315 | Street Gangs in America |
| WOST 437 | Feminist Theory |

## Total Credits

## Global Democracy



| Choose one of the following Research Skills courses: |  |  |
| :---: | :---: | :---: |
| COMM 290 | Communication Problems and Research Methods |  |
| COMM SCI 301 | Foundations for Social Research |  |
| HISTORY 290 | The Craft of History |  |
| Upper-Level Courses |  | 24 |
| DJS 363 | Topics in Democracy and Justice |  |
| DJS 470 | Senior Seminar in Democracy and Justice Studies |  |
| HISTORY 353 | The U.S. and the World |  |
| POL SCI 370 | Foreign and Defense Policies |  |
| Choose one of the following upper level courses: |  |  |
| HISTORY 356 | History of Modern Africa |  |
| POL SCI 351 | Comparative Politics |  |
| POL SCI 353 | Politics of Developing Areas |  |
| Choose one of the following upper level courses: |  |  |
| DJS 361 | Historical Perspectives on American Democracy |  |
| POL SCI 340 | Political Theory |  |
| POL SCI 349 | American Political Thought |  |
| Choose two of the following elective courses: |  |  |
| Students can choose HISTORY 356, POL SCI 351, or POL SCI 353 in this category if not used for requirement above |  |  |
| DJS 303 | Criminal Justice Process |  |
| DJS 320 | Constitutional Law |  |
| DJS 330 | Prison and Society |  |
| DJS 325 | Law and Society |  |
| DJS 362 | Power and Change in America |  |
| DJS 400 | Mentoring for Equity and Inclusion |  |
| DJS 497 | Internship |  |
| DJS 498 | Independent Study |  |
| DJS 499 | Travel Course |  |
| HISTORY 356 | History of Modern Africa |  |
| HISTORY 370 | History of Sexuality in the U.S. |  |
| HISTORY 380 | U.S. Women's History |  |
| HISTORY 402 | America in the Twentieth Century |  |
| HUM STUD 383 | Contemporary Cultural Issues |  |
| HUM STUD 384 | Topics in World Cultures |  |
| POL SCI 318 | Political Behavior |  |
| POL SCI 360 | International Relations |  |
| SOCIOL 303 | Race and Ethnic Relations |  |
| POL SCI 361 | Immigration and Immigration Policy |  |
| SOCIOL 307 | Social Theory |  |
| UR RE ST 323 | Asian American Communities in the United States |  |
| UR RE ST 324 | Latino Communities in the United States |  |
| WOST 437 | Feminist Theory |  |

## Total Credits

## Legal Studies

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Introduction to Democracy and Justice Studies | $\mathbf{2 1}$ |
| DJS 101 | Law and Equality in Historical Perspective |  |
| DJS 221 | American Government and Politics |  |
| POL SCI 101 | American History to 1865 |  |
| Choose one of the following supporting courses: |  |  |
| HISTORY 205 |  |  |

HISTORY 206 History of the United States from 1865 to the Present
HISTORY 207 Introduction to African-American History
Choose two of the following elective courses:
Students can also choose HISTORY 205, HISTORY 206, or HISTORY 207 in this category if not used for one of the requirements above

| ANTHRO 100 | Varieties of World Culture |
| :--- | :--- |
| DJS 200 | Mentoring for Equity and Inclusion |
| DJS 204 | Freedom and Social Control |
| PHILOS 102 | Contemporary Ethical Issues |
| PHILOS 103 | Logic and Reasoning |
| PHILOS 105 | Is Morality for Sale? |
| POL SCI 100 | Global Politics and Society |
| SOCIOL 101 | Introduction to Sociology |
| WOST 201 | Introduction to LGBTQ Studies |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |
| Choose one of the following Research Skills courses: |  |
| COMM 290 | Communication Problems and Research Methods |
| COMM SCI 301 | Foundations for Social Research |
| HISTORY 290 | The Craft of History |


| Upper-Level Courses |  |
| :--- | :--- |
| DJS 320 | Constitutional Law |
| DJS 325 | Law and Society |
| DJS 330 | Prison and Society |
| DJS 363 | Topics in Democracy and Justice |
| DJS 470 | Senior Seminar in Democracy and Justice Studies |
| Choose one of the following upper level courses: |  |
| DJS 361 | Historical Perspectives on American Democracy |
| POL SCI 340 | Political Theory |
| POL SCI 349 | American Political Thought |

## Choose two of the following elective courses:

| Students can also choose DJS 361, POL SCI 340 or POL SCI 349 in this category if not used to fulfill the category above |  |
| :--- | :--- |
| COMM 380 | Communication Law |
| DJS 303 | Criminal Justice Process |
| DJS 348 | Gender and the Law |
| DJS 362 | Power and Change in America |
| DJS 400 | Mentoring for Equity and Inclusion |
| DJS 461 | Social and Political Criticism |
| DJS 497 | Internship |
| DJS 498 | Independent Study |
| DJS 499 | Travel Course |
| FNS 392 | First Nations Justice and Tribal Governments |
| HISTORY 340 | Topics in African American History |
| HISTORY 353 | The U.S. and the World |
| HISTORY 356 | History of Modern Africa |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 402 | America in the Twentieth Century |
| PHILOS 326 | Philosophy, Politics and Law |
| POL SCI 312 | Community Politics |
| POL SCI 318 | Political Behavior |
| POL SCI 370 | Foreign and Defense Policies |
| POL SCI 378 | Environmental Law |


| SOCIOL 303 | Race and Ethnic Relations |
| :--- | :--- |
| SOCIOL 307 | Social Theory |
| SOCIOL 404 | Criminology |
| UR RE ST 323 | Asian American Communities in the United States |
| UR RE ST 324 | Latino Communities in the United States |
| WOST 437 | Feminist Theory |

Total Credits

## Social Justice

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| COMM SCI 200 | Civic Scholars Practicum |  |
| DJS 101 | Introduction to Democracy and Justice Studies |  |
| $\text { DJS } 200$ <br> or FNS 225 | Mentoring for Equity and Inclusion Introduction to First Nations Studies |  |
| WOST 241 or WOST 201 | Introduction to Women's, Gender, and Sexuality Studies Introduction to LGBTQ Studies |  |
| Choose one of the following supporting courses: |  |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| Choose one of the following elective courses: |  |  |
| Students can choose HISTORY 205, HISTORY 206, WOST 201, or WOST 241 in this category if not used for requirement above |  |  |
| ANTHRO 100 | Varieties of World Culture |  |
| DJS 204 | Freedom and Social Control |  |
| DJS 221 | Law and Equality in Historical Perspective |  |
| FNS 295 | Special Topics in First Nations Studies |  |
| HISTORY 220 | American Environmental History |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| PHILOS 102 | Contemporary Ethical Issues |  |
| POL SCI 100 | Global Politics and Society |  |
| POL SCI 101 | American Government and Politics |  |
| SOCIOL 101 | Introduction to Sociology |  |
| WOST 201 | Introduction to LGBTQ Studies |  |


| Choose one of the following Research Skills courses: |  |
| :--- | :--- |
| COMM 290 | Communication Problems and Research Methods |
| COMM SCI 301 | Foundations for Social Research |
| HISTORY 290 | The Craft of History |

Upper-Level Courses 24

| COMM SCI 497 | Internship |
| :--- | :--- |
| DJS 363 | Topics in Democracy and Justice |
| DJS 470 | Senior Seminar in Democracy and Justice Studies |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| or HISTORY 340 | Topics in African American History |
| WOST 437 | Feminist Theory |
| or HISTORY 380 | U.S. Women's History |

Choose one of the following upper level courses:

| DJS 361 | Historical Perspectives on American Democracy |
| :--- | :--- |
| POL SCI 340 | Political Theory |
| POL SCI 349 | American Political Thought |

Choose two of the following elective courses:

Students can choose DJS 361, HISTORY 340, HISTORY 365, POL SCI 340, POL SCI 349, or WOST 437 in this category if not used for requirement above

| DJS 303 | Criminal Justice Process |
| :---: | :---: |
| DJS 320 | Constitutional Law |
| DJS 325 | Law and Society |
| DJS 330 | Prison and Society |
| DJS 362 | Power and Change in America |
| DJS 400 | Mentoring for Equity and Inclusion |
| DJS 497 | Internship |
| DJS 498 | Independent Study |
| DJS 499 | Travel Course |
| FNS 360 | Women and Gender in First Nations Communities |
| FNS 392 | First Nations Justice and Tribal Governments |
| HISTORY 340 | Topics in African American History |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 402 | America in the Twentieth Century |
| PHILOS 326 | Philosophy, Politics and Law |
| POL SCI 312 | Community Politics |
| SOCIOL 303 | Race and Ethnic Relations |
| SOCIOL 307 | Social Theory |
| SOCIOL 315 | Street Gangs in America |
| SOCIOL 404 | Criminology |
| UR RE ST 323 | Asian American Communities in the United States |
| UR RE ST 324 | Latino Communities in the United States |
| WOST 350 | Topics in Women's, Gender, and Sexuality Studies |

Total Credits

## Social Studies Education

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 15 |
| DJS 101 | Introduction to Democracy and Justice Studies |  |
| HISTORY 207 | Introduction to African-American History |  |
| POL SCI 101 | American Government and Politics |  |
| Choose one: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| POL SCI 100 | Global Politics and Society |  |
| FNS 374 | Wisconsin First Nations History |  |
| Choose one: |  |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| Quantiative (Licensure Requirement): Choose one: |  | 3 |
| PSYCH 205 | Social Science Statistics |  |
| MATH 100 | Math Appreciation |  |
| MATH 101 | Advanced Algebra |  |
| Required Contant Classes |  | 15 |
| FNS 225 | Introduction to First Nations Studies |  |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |  |
| POL SCI 406 | State and Local Government |  |


| Choose one: |  |  |
| :---: | :---: | :---: |
| HISTORY 423 | Topics in Modern European History (Holocaust) |  |
| HISTORY 333 | Europe in the 20th Century |  |
| DJS 333 | Area Studies in Democracy and Justice |  |
| DJS 363 | Topics in Democracy and Justice (The US and Genocide) |  |
| POL SCI 351 | Comparative Politics |  |
| Choose one: |  |  |
| HISTORY 220 | American Environmental History |  |
| HISTORY 326 | Global Environmental History |  |
| POL SCI 380 | Global Environmental Politics and Policy |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| Broadfield Requirements |  | 12 |
| Choose one: |  |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| Choose one: |  |  |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Choose one: |  |  |
| SOCIOL 101 | Introduction to Sociology |  |
| SOCIOL 203 | Ethnic and Racial Identities |  |
| SOCIOL 238 | Sociological Perspectives on Gender |  |
| Choose one: |  |  |
| FNS 216 | Native American Landscapes:Imagined and Lived Spaces |  |
| GEOG class at 200 level or higher |  |  |
| Capstone Requirement |  | 3 |
| DJS 470 | Senior Seminar in Democracy and Justice Studies |  |

## Total Credits

## Design Arts

Students seeking a minor in Design Arts must complete requirements in one of the following areas of emphasis:

- Environmental Design \& Community Planning
- Graphic Design


## Minor Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Environmental Design \& Community Planning
- Graphic Design


## Curriculum Guide

The following is a curriculum guide for a four-year Design degree program with an optional Communications Minor and is subject to change without notice. Students should consult a Design program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Design Major
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.


## Faculty

Jeffrey A Benzow; Associate Professor; M.F.A., University of Wisconsin - Milwaukee, chair
Abbey Kleinert; Assistant Professor; M.F.A., University of Minnesota
Addie M Sorbo; Associate Teaching Professor; B.A., University of Wisconsin - Green Bay

## Design Arts Minor

Students must complete requirements in one of the following areas of emphasis:

- Environmental Design \& Community Planning
- Graphic Design


## Emphasis in Environmental Design \& Community Planning

## Description

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 12 |
| DESIGN 236 | Environmental Design Studio I |  |
| EPP 152 | Introduction to Graphic Display and Planning |  |
| EPP 254 | Introduction to Designing with Communities and Neighborhoods |  |
| SOCIOL 100 | Introduction to Urban Studies |  |
| Upper Level Courses |  | 12 |
| Choose 12 credits |  |  |
| DESIGN 437 | Environmental Design Studio II |  |
| DESIGN 438 | Environmental Design Studio III |  |
| DESIGN 439 | Environmental Design Studio IV |  |
| DESIGN 497 | Internship |  |
| EPP 412 | Urban Planning |  |

Total Credits

## Emphasis in Graphic Design

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ART 105 | Introductory Drawing |
| ART 107 | Two-Dimensional Design |
| DESIGN 231 | Graphic Design Studio I |
| Upper Level Courses |  |
| Choose 15 credits | Graphic Design Studio II |
| DESIGN 332 | Typography |
| DESIGN 350 | Graphic Design Studio III |
| DESIGN 431 | Advanced Studio |
| DESIGN 433 | Design Arts Publication Workshop |
| DESIGN 435 | Internship |
| DESIGN 497 |  |

Total Credits

## Economics

Economics underlies everything we do in societies around the globe. Given its focus on the allocation of scarce resources among competing desires, economics will always be critical for citizens to understand, regardless of the form or structure of the social institutions under which these individuals live. Those who study economics will develop a skill set that is useful in business, nonprofit, and governmental organizations. Graduates will be better
able to function as individual decision-makers within our complex, interrelated society; they will be enabled as critical thinkers and socially responsible citizens.

Students who minor in Economics receive training in quantitative methods, economic theory, business decision making, and applied economic analysis. Students can tailor their academic programs to fit their strengths, interests, and career goals. With appropriate program planning, graduates can also take an array of courses allowing them to obtain teaching certification at the secondary school level. Students seeking information on teacher certification should contact the Education Office.

The training received by Economics students in incentive-based decision making creates a variety of career opportunities. Economics minors enter careers in business, government, and nonprofit organizations. Individuals trained in economics are often employed by banks, investment firms, government agencies, market research firms, insurance companies, management consulting, advertising agencies, labor unions, and as private entrepreneurs. Others develop careers in real estate, land use planning, financial planning, credit and debt collection, statistical and systems analysis, politics, and public administration. Some graduates go on to further studies in graduate schools, where they receive advanced training in such fields as business, economics, law, public policy, and urban studies.

## Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| ECON 210 | Quantitative Methods for Economics and Business |  |
| Upper-Level Courses |  |  |
| ECON 302 | Intermediate Macro Economic Theory |  |
| ECON 303 | Intermediate Micro Economic Theory |  |
| ECON 305 | Environmental Economics |  |
| ECON 330 | Money, Banking and Financial Markets |  |

## Faculty

Rasoul Rezvanian; Professor; Ph.D., Southern Illinois University
Karl Schindl; Professor; M.S., Northern Illinois University, chair
Thomas S Nesslein; Associate Professor; Ph.D., University of Washington - Seattle
Matthew Raunio; Associate Professor; M.B.A., University of Wisconsin - Oshkosh
Mussie M Teclezion; Associate Professor; D.B.A., Southern Illinois University at Carbondale
Zhuoli Axelton; Assistant Professor; Ph.D., Washington State University
Preston Cherry; Assistant Professor; Ph.D., Texas Tech University

Heather Kaminski; Assistant Professor; D.B.A., Anderson University

Eu Jin Kwak; Assistant Professor; Ph.D., University of Georgia*
Grace (Fangjun) Sang; Assistant Professor; Ph.D., Kent State
Kevin Jaklin; Assistant Teaching Professor; M.B.A., University of Wisconsin - Oshkosh

## Education

## (Bachelor of Science)

UW-Green Bay's teacher education program is approved by the Wisconsin Department of Public Instruction. The program is designed to prepare entrylevel teachers with relevant content, professional knowledge and skills to effectively meet the future learning needs of a changing school population.

Students seeking an elementary to middle school license (Grades K through 9) will complete a major in Education. Graduates seeking this license will receive a bachelor's degree in Education.

Students who desire secondary-level teaching licensure (Grades 4 through 12 or All Ages) are required to complete a minor in Education to support a disciplinary major as required and approved by the Department of Public Instruction. Graduates seeking these licenses receive a bachelor's degree in their disciplinary major(s). One exception is science, which has an emphasis within the Education major.

The interdisciplinary, problem-focused studies offered at UW-Green Bay provide uncommonly strong preparation for teaching. Students focus on excellence in the teaching/learning process through methods and field experience courses that provide the background, knowledge and instructional tools needed to become effective teachers. These studies complement strong academic coursework in communication, the arts, humanities, social studies, science and mathematics.

UW-Green Bay offers teacher license programs at these age levels:

- Elementary and Middle School (Grades K through 9)
- Middle and High School (Grades 4 through 12)
- Grades Kindergarten through 12 (All Grade levels)

Students may pursue a supplemental Bilingual/Bicultural Education and/or English as a Second Language license by completing a minor in Humanistic Studies with an emphasis in linguistics and any additional requirements set by the Wisconsin Department of Public Instruction. Contact the Professional Program in Education for a full list of certification requirements.

UW-Green Bay's teacher education program provides prospective teachers with an opportunity to work in a variety of educational settings throughout their program of study. These school-based experiences will include work with various ethnic, cultural and economic groups, and children with exceptional educational needs.

## Who Should Seek an Education Major or Minor?

To declare a major or minor in Education, students must first be admitted to the Professional Program in Education. The process and requirements are listed below. Students must enjoy being around children and adolescents. However, a love of children does not guarantee a love of teaching! Teaching is a demanding but extremely rewarding profession. The best teachers are those who pursue a love of learning that does not end at graduation. Teaching is a calling, a commitment to educating, and not just a job.

Students interested in pursuing an Education major or minor must have the ability to communicate, inspire trust and confidence, and motivate students, as well as understand their educational and emotional needs. They also should be organized, dependable, patient, and creative.

## Majors and Minors

Students majoring in Education are not required to complete an academic minor to be endorsed for a license to teach Grades K through 9. Students thinking about teaching at the middle or high school level complete a minor in Education and major in the area they want to teach (with the exception of science). Students must have a passion for their major program of study and a desire to actively engage others in the learning process.

## Knowledge and Skills Gained in the Major and Minor

The requirements for both the Education major and minor include courses that address today's concerns in education: changes in the schools and schooling, changes in the nature and nurture of students, and changes in society and the workplace. Early clinical experiences allow prospective teachers to observe and participate in actual educational settings. These experiences will often include working with students from various ethnic, cultural and economic groups, adult learners, and exceptional needs children.

Students will learn and understand the central concepts, tools, and structures of their discipline. Students will also understand how children learn and develop and how children differ in their learning abilities. Teaching techniques and strategies of instruction are taught not only to educate children on subject matter, but also in an effort to encourage critical thinking and problem-solving.

## What Can You Do with a Major or Minor in Education?

Education is a professional program, which primarily educates students to become entry-level teachers. However, there are many other career opportunities in education. The following are some but certainly not all of the career opportunities in the field of education: day care administrator, education management specialist, educational sales representative, education and training administrator, elementary school teacher, kindergarten teacher, librarian, preschool administrator, secondary school teacher, and tutor.

## Program Admission Process and Requirements

Admission to the program is a two-step process. The first step is to be admitted as a candidate. Step two is final admission to the program. Complete information about admission requirements and all application materials can be obtained from the Education Program Office or on the program website (http://www.uwgb.edu/education/).

Applications for candidacy must be completed and submitted near the beginning of each semester for admission starting the next semester. A committee of Education program faculty reviews applications and makes admission decisions based on the criteria described below. Meeting the minimum requirements does not guarantee admission as a program candidate.

The process and requirements for admission as a candidate in the Professional Program in Education are as follows:

1. Apply and be accepted to the University of Wisconsin-Green Bay.
2. Complete a minimum of twenty-eight (28) university credits with a cumulative grade point average of at least 2.75.
3. Demonstrate communication competencies in Reading, Writing and Math through a variety of testing options and/or coursework. A complete list of accepted options can be found on the Application Process and Requirements section of the website (http://www.uwgb.edu/education/admissions/ application-process-and-requirements/).
4. Complete EDUC 208 , FNS 211 or DJS 200 with a grade of "C" or better. The completion of EDUC 206 with a grade of "C" or better is strongly recommended at the time of application.
5. Complete and submit an Application for Candidacy with supporting documentation to the UW-Green Bay Professional Program in Education.

Only students who are candidates will receive final admission to the program. A committee of Education program faculty members reviews candidates and makes decisions on final admission based on the criteria described below. Meeting the minimum requirements does not guarantee final admission to the program.

The process and requirements for full admission to the program are as follows:

1. Be admitted as a teacher education program candidate.
2. Successfully complete all required courses in candidacy block including EDUC 290 and EDUC 291 with a grade of B or better.
3. Submit the K-12 Teacher Recommendation Form to the Education Program Office.
4. Submit the UW-Green Bay Instructor Recommendation Form to the Education Office.

## Undergraduate - Graduate Accelerated Program Track

Following full admission to the education program, undergraduate students may apply to participate in an Undergraduate-Graduate Accelerated track. Students meeting the requirements may request to enroll in coursework at the graduate level that will directly apply to their undergraduate degree and teaching license. Following graduation, students can request admission to the Master of Applied Leadership in Teaching and Learning graduate program and apply up to 9 previously earned graduate credits to this program of study. Once accepted to the graduate program, students adhere to all graduate student expectations and pay full graduate tuition rates.

Requirements for participation include:

- Full admission to the Professional Program in Education
- Junior standing at the completion of semester 1 in the Professional Program in Education
- Cumulative GPA of 3.25
- Education Faculty recommendation

A committee consisting of graduate faculty will review student applications for acceptance before enrollment at the graduate level may occur.
Applications must be submitted by October 1 or March 1 for participation in the following semester.

## Teacher Licensing Requirements and Preparation

Students planning to pursue a teaching license should contact the Education Program Office, (920) 465-2137. Teacher licensing requirements are very specific and require ample credit hours. Also, Department of Public Instruction requirements change from time-to-time, making program requirements subject to change. Students must meet any new requirements before a license will be awarded. Students are responsible for being aware of current licensure requirements.

In addition to the requirements listed here, there are regulations about time limits, grade point averages, test scores and other program completion requirements. Credit hours necessary to fulfill the requirements for specific licenses vary, depending upon the major and/or minor selected, age level licensure sought, and other factors. The Education Office can provide specific requirements.

Individuals who already hold a bachelor's degree and are interested in pursuing a teaching license should contact the Education Office regarding special requirements that apply to them.

Following are summaries of academic program components required for each of the three teaching licenses offered at UW-Green Bay. A detailed listing of specific licensure requirements can be obtained from the Education Program Office.

## Elementary and Middle School (Grades K through 9)

- UW-Green Bay general education requirements
- Interdisciplinary major in Education
- Professional education course sequence
- Student teaching


## Middle and High School (Grades 4 through 12)

- UW-Green Bay general education requirements
- Content area major (except for science)
- Interdisciplinary minor in Education (except for science)
- Professional education course sequence
- Student teaching


## Kindergarten through Grades 12 (All Grade Levels)

- For licenses in art, music, foreign languages, theatre only
- UW-Green Bay general education requirements
- Selected content area major
- Interdisciplinary minor in Education
- Professional education course sequence
- Student teaching

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Programmatic Outcomes

## Standard 1: Pupil Development

The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

## Standard 2: Learning Differences

The teacher uses his or her understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

Standard 3: Learning Environments
The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.

## Standard 4: Content Knowledge

The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.

## Standard 5: Application of Content

The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

## Standard 6: Assessment

The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

## Standard 7: Planning for Instruction

The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

Standard 8: Instructional Strategies

The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Standard 9: Professional Learning and Ethical Practice
The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.

Standard 10: Leadership and Collaboration
The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues and other school professionals, and community members to ensure learner growth, and to advance the profession.

## Major Area of Emphasis (p. 154)

Students must complete requirements in one of the following areas of emphasis: (p. 154)

- English as a Second Language, Gr. PK-12 (p. 154)
- Elementary and Middle School; Grades K-9 (p. 154)
- Science Education (p. 154)
- Accelerated - Integrated with graduate Applied Leadership for Teaching and Learning program (p. 154)


## Minor Area of Emphasis (p. 158)

Students must complete requirements in one of the following areas of emphasis: (p. 158)

- English as a Second Language, Gr. PK-12 (p. 158)
- Teaching Mathematics, Grades 4-12 (p. 158)
- Teaching Music, Art or World Languages, Gr. PK-12 (p. 158)
- Teaching Social Studies or ELA, Gr. 4-12 (p. 158)

Mary N Gichobi; Associate Professor; Ph.D., Iowa State University
Timothy U Kaufman; Associate Professor; Ph.D., Loyola University of Chicago
Mark T Kiehn; Associate Professor; Ph.D., University of Colorado-Boulder
Corrine Mathieu; Assistant Professor, Ph.D., University of Minnesota - Twin Cities
Samantha Meister; Assistant Professor, Ph.D., Texas A\&M University
Andria Moon; Associate Professor, Ed.D., Central Michigan University

## Education Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Elementary and Middle School; Grades K-9
- English as a Second Language, Gr. PK-12
- Science Education
- Accelerated - Integrated with graduate Applied Leadership for Teaching and Learning program


## Elementary and Middle School; Grades K-9

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| EDUC 206 | Culturally Responsive Teaching and Learning |
| EDUC 210 | Foundations of Literacy |
| EDUC 281 | Conceptual Foundations of Elementary Mathematics I |
| EDUC 282 | Conceptual Foundations of Elementary Mathematics II |


| EDUC 284 | Fundamentals of Algebra, Geometry and Measurement for Teaching |
| :--- | :--- |
| EDUC 290 | Introduction to Educational Inquiry |
| EDUC 291 | Educational Inquiry Field Practicum |
| Choose One of the Following: |  |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |
| FNS 211 | Mentoring First Nations Youth |
| DJS 200 | Mentoring for Equity and Inclusion |
| Upper-Level Courses |  |
| EDUC 302 | Teaching Social Studies in Elementary and Middle Schools |
| EDUC 307 | Teaching Reading in the Elementary and Middle Schools |
| EDUC 309 | Teaching Language Arts in the Elementary and Middle Schools |
| EDUC 324 | Teaching Mathematics in the Elementary and Middle Schools |
| EDUC 325 | Teaching Science in the Elementary and Middle Schools |
| EDUC 326 | Music, Movement and Core Arts Pedagogy |
| EDUC 327 | Supporting Multilingual Learners in the PK-12 Classroom |
| EDUC 333 | Curriculum \& Assessment |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |
| EDUC 345 | The Exceptional Child in Regular Education |
| EDUC 351 | Field Project in School Settings |
| EDUC 352 | Social and Family Influences on Development and Learning |
| EDUC 361 | Introduction to the Art and Science of Teaching |
| EDUC 444 | Current Trends in Education |
| EDUC 452 | Principles of Middle Level Education |

Total Credits

## English as a Second Language, Gr. PK-12

| Code | Title |
| :--- | :--- |
| Supporting Courses: | Culturally Responsive Teaching and Learning (Supporting Courses:) |
| EDUC 206 | Foundations of Literacy |
| EDUC 210 | Introduction to Educational Inquiry |
| EDUC 290 | Educational Inquiry Field Practicum |
| EDUC 291 | Concepts, Issues, and Field Experience in Education |
| Choose One of the Following: |  |
| EDUC 208 | Mentoring for Equity and Inclusion |
| DJS 200 | Curriculum \& Assessment |
| FNS 211 | Social and Family Influences on Development and Learning |
| Upper Level Courses | Supporting Learning and Behavior in the Classroom |
| EDUC 333 | The Exceptional Child in Regular Education |
| EDUC 352 | Introduction to the Art and Science of Teaching |
| EDUC 340 | Principles of Middle Level Education |
| EDUC 345 |  |
| EDUC 361 | Teaching English as a Second Language |
| EDUC 452 | Supporting Multilingual Learners in the PK-12 Classroom |
| ESL Specific Courses | Disciplinary Language and Literacy |
| EDUC 315 | Field Experience in Teaching Methods |
| EDUC 327 | Second Language Acquisition \& Assessment |
| EDUC 328 | Sociolinguistics |
| EDUC 350 |  |
| HUM STUD 319 | Asian American Communities in the United States |
| HUM STUD 321 |  |
| Cross Cultural Awareness (choose one): |  |
| SOCIOL 323 |  |


| SOCIOL 324 | Latino Communities in the United States |
| :--- | :--- |
| SPANISH 357 | Cultura Latina |
| SPANISH 373 | Spanish in the US |

## Total Credits

## Science Education

| Code | Title | Credits |
| :---: | :---: | :---: |
| Lower-Level Courses |  | 59 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| EDUC 206 | Culturally Responsive Teaching and Learning |  |
| EDUC 290 | Introduction to Educational Inquiry |  |
| EDUC 291 | Educational Inquiry Field Practicum |  |
| ET 101 | Fundamentals of Engineering Technology |  |
| GEOSCI 202 | Physical Geology |  |
| GEOSCI 203 | Earth System History |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| Physics (10 credits): Choose either |  |  |
| PHYSICS 103 \& PHYSICS 104 | Fundamentals of Physics I and Fundamentals of Physics II |  |
| OR |  |  |
| PHYSICS 201 <br> \& PHYSICS 202 | Principles of Physics I and Principles of Physics II |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Engineering (choose 6 credits): |  |  |
| ET 201 | Introduction to Environmental Engineering |  |
| ET 203 | Introduction to Water and Waste Water |  |
| ET 330 | Hydrology |  |
| ET 415 | Solar and Alternate Energy Systems |  |
| ENGR 202 | An Introduction to Smart Cities |  |
| ENGR 260 | Introduction to Engineering Ethics |  |
| Choose One of the Following: |  |  |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| FNS 211 | Mentoring First Nations Youth |  |
| Upper-Level Courses |  | 28 |
| EDUC 314 | Teaching Science in Middle and Secondary Schools |  |
| EDUC 327 | Supporting Multilingual Learners in the PK-12 Classroom |  |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |  |
| EDUC 345 | The Exceptional Child in Regular Education |  |
| EDUC 351 | Field Project in School Settings |  |
| EDUC 361 | Introduction to the Art and Science of Teaching |  |
| EDUC 422 | Reading in the Content Areas |  |
| EDUC 452 | Principles of Middle Level Education |  |

Select six upper level ( 300 or 400 level) science credits with the same prefix (BIOLOGY, CHEM, ENV SCI, GEOSCI, HUM BIOL, PHYSICS, or WATER)

Total Credits

## Accelerated - Integrated with graduate Applied Leadership for Teaching and Learning program

Following full admission to the education program, undergraduate students may apply to participate in an Undergraduate-Graduate Accelerated track. Students meeting the requirements may request to enroll in coursework at the graduate level that will directly apply to their undergraduate degree and teaching license. Following graduation, students can request admission to the Master of Applied Leadership in Teaching and Learning graduate program and apply up to 9 previously earned graduate credits to this program of study. Once accepted to the graduate program, students adhere to all graduate student expectations and pay full graduate tuition rates.

Requirements for participation include:

1. Full admission to the Professional Program in Education
2. Junior standing at the completion of semester 1 in the Professional Program in Education
3. Cumulative GPA of 3.25
4. Education Faculty recommendation
5. A committee consisting of graduate faculty will review student applications for acceptance before enrollment at the graduate level may occur.

Applications must be submitted by October 1 or March 1 for participation in the following semester.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| EDUC 206 | Culturally Responsive Teaching and Learning |  |
| EDUC 210 | Foundations of Literacy |  |
| EDUC 281 | Conceptual Foundations of Elementary Mathematics I |  |
| EDUC 282 | Conceptual Foundations of Elementary Mathematics II |  |
| EDUC 284 | Fundamentals of Algebra, Geometry and Measurement for Teaching |  |
| EDUC 290 | Introduction to Educational Inquiry |  |
| EDUC 291 | Educational Inquiry Field Practicum |  |
| Choose One of the Following: |  | 3 |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |  |
| FNS 211 | Mentoring First Nations Youth |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| Upper-Level Courses |  | 46 |
| EDUC 302 | Teaching Social Studies in Elementary and Middle Schools |  |
| EDUC 307 | Teaching Reading in the Elementary and Middle Schools |  |
| EDUC 309 | Teaching Language Arts in the Elementary and Middle Schools |  |
| EDUC 324 | Teaching Mathematics in the Elementary and Middle Schools |  |
| EDUC 325 | Teaching Science in the Elementary and Middle Schools |  |
| EDUC 326 | Music, Movement and Core Arts Pedagogy |  |
| EDUC 327 | Supporting Multilingual Learners in the PK-12 Classroom |  |
| EDUC 333 | Curriculum \& Assessment |  |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |  |
| EDUC 345/545 | The Exceptional Child in Regular Education ${ }^{1}$ |  |
| EDUC 351 | Field Project in School Settings |  |
| EDUC 352/552 | Social and Family Influences on Development and Learning ${ }^{1}$ |  |
| EDUC 361 | Introduction to the Art and Science of Teaching |  |
| EDUC 444 | Current Trends in Education |  |
| EDUC 452/652 | Principles of Middle Level Education ${ }^{1}$ |  |

## Total Credits

1 Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the Education office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Education Minor

## Minor Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- English as a Second Language, Gr. PK-12
- Teaching Mathematics, Grades 4-12
- Teaching Music, Art or World Languages, Gr. PK-12
- Teaching Social Studies or ELA, Gr. 4-12

Students planning to pursue a teaching license should contact the Education Program office, (920) 465-2137, for the licensure requirements.

## English as Second Language, Gr. PK-12

| Code | Title | Credits |
| :---: | :---: | :---: |
| Suporting Courses: |  | 12 |
| EDUC 206 | Culturally Responsive Teaching and Learning |  |
| EDUC 290 | Introduction to Educational Inquiry |  |
| EDUC 291 | Educational Inquiry Field Practicum |  |
| Choose One of the Following: |  |  |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| FNS 211 | Mentoring First Nations Youth |  |
| Upper Level Courses |  | 25-27 |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |  |
| EDUC 361 | Introduction to the Art and Science of Teaching |  |
| EDUC 452 | Principles of Middle Level Education |  |
| ESL Specific Courses |  |  |
| EDUC 315 | Teaching English as a Second Language |  |
| EDUC 327 | Supporting Multilingual Learners in the PK-12 Classroom |  |
| EDUC 328 | Disciplinary Language and Literacy |  |
| HUM STUD 319 | Second Language Acquisition \& Assessment |  |
| HUM STUD 320 | Language and Identity |  |
| EDUC 351 | Field Project in School Settings |  |

Total Credits

## Teaching Mathematics, Grades 4-12

| Code | Title | Credits |
| :---: | :---: | :---: |
| Suporting Courses: |  | 12 |
| EDUC 206 | Culturally Responsive Teaching and Learning |  |
| EDUC 284 | Fundamentals of Algebra, Geometry and Measurement for Teaching |  |
| EDUC 290 | Introduction to Educational Inquiry |  |
| EDUC 291 | Educational Inquiry Field Practicum |  |
| Choose one course: |  | 3 |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| FNS 211 | Mentoring First Nations Youth |  |
| Upper Level Courses |  | 16 |
| EDUC 313 | Teaching Mathematics in Middle and Secondary Schools |  |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |  |


| EDUC 350 | Field Experience in Teaching Methods |
| :--- | :--- |
| EDUC 361 | Introduction to the Art and Science of Teaching |
| EDUC 422 | Reading in the Content Areas |
| EDUC 452 | Principles of Middle Level Education |

## Total Credits

## Teaching Music, Art or World Languages, Gr. PK-12



## Total Credits

1 This requirement can be waived with a Wisconsin Math Placement Test score of MATH 101 or greater.
2 Music majors with an Education minor will choose EDUC 334.

Students planning to pursue a teaching license should contact the Education Office regarding any additional licensure requirements.

## Teaching Social Studies or ELA, Gr. 4-12

| Code | Title | Credits |
| :---: | :---: | :---: |
| Suporting Courses: |  | $9{ }^{\text { }}$ |
| EDUC 206 | Culturally Responsive Teaching and Learning (Supporting Courses:) |  |
| EDUC 290 | Introduction to Educational Inquiry |  |
| EDUC 291 | Educational Inquiry Field Practicum (Supporting Courses:) |  |
| Choose one of the following: |  | 3 |
| EDUC 208 | Concepts, Issues, and Field Experience in Education |  |
| DJS 200 | Mentoring for Equity and Inclusion |  |
| FNS 211 | Mentoring First Nations Youth |  |
| Choose One course: |  | 3 |
| MATH 100 | Math Appreciation |  |
| MATH 101 | Advanced Algebra |  |


| PSYCH 205 | Social Science Statistics |
| :--- | :--- |
| Upper Level Courses |  |
| EDUC 340 | Supporting Learning and Behavior in the Classroom |
| EDUC 350 | Field Experience in Teaching Methods |
| EDUC 361 | Introduction to the Art and Science of Teaching |
| EDUC 422 | Reading in the Content Areas |
| EDUC 452 | Principles of Middle Level Education |
| Choose one of the Following as Appropriate: |  |
| EDUC 310 | Teaching Communication Arts in the Middle and Secondary Schools |
| EDUC 312 | Teaching Social Studies in the Middle and Secondary Schools |

## Course List

## Electrical Engineering

## (Bachelor of Science)

## UW-Green Bay Engineering

One of the fastest-growing regions in the state and the Midwest for engineering jobs, Northeast Wisconsin will see tremendous growth in the need for and recruitment of new engineers. This region has the most open positions for engineers in the state and has seen an $18 \%$ increase in demand for engineers since 2010. Engineering as a career focuses on theoretical aspects of mathematical, scientific and engineering principals. New professionals with a Bachelor of Science in Electrical Engineering from UW-Green Bay will be perfectly-timed and well-prepared to meet the swell in demand for engineers, leading to high-paying, rewarding careers in some of the region's most sought after employers.

## Electrical Engineering

The University of Wisconsin-Green Bay is proud to announce the newest engineering program in Northeast Wisconsin, the Electrical Engineering program. Part of the College of Science, Engineering and Technology (CSET) and offered through the Richard J. Resch School of Engineering (RSE), the Bachelor of Science (B.S.) in Electrical Engineering is designed as a cutting-edge program that will offer students individualized attention from award-winning professors, a hands-on education with state-of the-art equipment, and opportunities for research and internships with some of the largest companies and employers in the region.

Electrical engineering is the application of scientific and mathematical principles to the design, manufacture, and control of structures, machines, processes, and systems. In the past, the work of electrical engineers has had a direct and vital impact on people's lives. Electrical engineers have been responsible for the creation of electric power, modern electronics, computers, electronic communication systems, modern flight controllers, automated manufacturing, and medical diagnostic tools. An electrical engineering education continues to provide opportunities for solving problems of great social significance and for increasing people's quality of life. The electrical engineering program spans the disciplines of electronics, computers, circuits, electromagnetic fields, power systems, controls, communications, and signal processing.

Students will benefit from relationships with local technical colleges, and local industry to complete a B.S. in engineering in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

## Contact

For more information contact:
Jagadeep Thota, Ph.D.
Chair, Engineering
Phone: 920-465-2817
Email: thotaj@uwgb.edu

## or

Patricia Terry, Ph.D.
Chair, Richard J. Resch School of Engineering
Phone: 920-465-2749
Email: terryp@uwgb.edu

## Major



| ENGR 428 | Wireless Networks |
| :--- | :--- |
| ENGR 438 | Microprocessors and Embedded Systems |
| ENGR 493 | Special Topics in Electrical Engineering |
| ENGR 498 | Independent Study |

Total Credits

## Curriculum Guide

The following curriculum guide is for a four-year Electrical Engineering degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available.

Total 125 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| ET 105 | Fundamentals of Drawing | 3 |
| First Year Seminar (FYS) |  | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| ENGR 120 | Electrical Circuits I | 3 |
| ENGR 121 | Electrical Circuits I Lab | 1 |
| ET 142 | Introduction to Programming | 3 |
| General Education |  | 3 |
|  | Credits | 14 |


| Sophomore |  |  |
| :--- | :--- | :--- |
| Fall |  |  |
| MATH 209 | Multivariate Calculus |  |
| PHYSICS 201 | Principles of Physics I |  |
| \& PHYSICS 203 | and Introductory Physics Lab I | 5 |
| ET 206 | Chemistry for Engineers | 4 |
| ENGR 210 | Electrical Circuits II | 3 |
| ENGR 211 | Electrical Circuits II Lab | $\mathbf{3}$ |
|  | Credits | $\mathbf{1 7}$ |


| Spring |  |  |
| :--- | :--- | ---: |
| MATH 260 | Introductory Statistics | 4 |
| ENGR 222 | Electronic Devices | 3 |
| ENGR 223 | Electronic Devices Lab | 1 |
| ENGR 224 | Electrical Codes, Safety, and Standards | 2 |
| ENGR 320 | Energy Conversion | 3 |
| ENGR 321 | Energy Conversion Lab | 1 |
| ENGR 236 | Technical Writing | 3 |
|  | Credits | $\mathbf{3}$ |

Junior
Fall

| MATH 305 | Ordinary Differential Equations | 4 |
| :--- | :--- | :--- |
| ENGR 310 | Digital Logic Design | 3 |
| ENGR 311 | Digital Logic Design Lab | 1 |
| ENGR 342 | Signals and Systems | 3 |
| ENGR 343 | Signals and Systems Lab | 1 |
| ENGR 348 | Electromagnetic Fields and Applications | 3 |
|  | Credits | $\mathbf{1 5}$ |

Spring
ENGR 328 Microcontrollers and Programmable Logic Controllers 3
ENGR 329 Microcontrollers and Programmable Logic Controllers Lab 1

ENGR $346 \quad$ Electrical Power Systems 3
ENGR $434 \quad$ Power Electronics 3
General Education 3

| General Education |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| ENGR 412 | Communications Systems | 3 |
| ENGR 462 | Senior Design Project | 3 |
| Technical Elective I |  | 3 |
| Technical Elective II |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| Technical Elective III |  | 3 |
| Technical Elective IV |  | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 125 |

Technical Electives (choose any four):

1. ET 342 Supervisory Control and Data Acquisition (3 s.h.)
2. ET 400 Co-op/Internship in Engineering Technology (3 s.h.) or ENGR 494 Co-op (1-2 s.h.)
3. ET 415 Solar and Alternate Energy Systems (3 s.h.)
4. ET 360 Project Management (3 s.h.) or ENGR 334 Industrial Decision Processes (3 s.h.)
5. ENGR 402 Smart Cities: Engineering the Future ( 3 s.h.)
6. ENGR 414 Power System Analysis and Protection (3 s.h.)
7. ENGR 426 Wireless Communications (3 s.h.)
8. ENGR 428 Wireless Networks (3 s.h.)
9. ENGR 438 Microprocessors and Embedded Systems (3 s.h.)
10. ENGR 493 Special Topics in Electrical Engineering (3 s.h.)
11. ENGR 498 Independent Study (1-4 s.h.)

## Faculty

Maruf Hossain; Professor; Ph.D., University of Memphis
John F Katers; Professor; Ph.D., Marquette University*
Patricia A Terry; Professor; Ph.D., University of Colorado, chair*
Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina
Michael Holly; Associate Professor; Ph.D., University of Wisconsin - Madison
Md Rasedul Islam; Associate Professor; Ph.D., University of Wisconsin - Madison
Mohammad Mahfuz; Associate Professor; Ph.D., University of Ottawa
Jagadeep Thota; Associate Professor; Ph.D., University of Nevada - Las Vegas
Elie Atallah; Assistant Professor; Ph.D., University of Central Florida
Kpoti (Stefan) Gunn; Assistant Professor; Ph.D., Ohio State University
Jian Zhang; Assistant Professor; Ph.D., Mississippi State University
Taskia Ahammad Khan; Assistant Teaching Professor; M.S., Bradley University
Nabila Rubaiya; Assistant Teaching Professor; M.S., University of Wisconsin - Milwaukee

## Electrical Engineering Technology

(Bachelor of Science)

## Accreditation

The Electrical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

## UW-Green Bay Engineering Technology

Combine hands-on learning with academic coursework and get ready for high-demand jobs in the growing field of engineering technology. The University partners with regional leaders and technical colleges so that you will be prepared for an ever-changing industry. Get the technical skills that will make you an expert and the critical-thinking skills that will make you indispensable.

## Engineering Technology Programs Mission

All of the Engineering Technology programs (Electrical, Mechanical and Environmental) include a strong liberal arts base along with a number of handson experiences, including a capstone experience or internship that often will be working with businesses and organizations within the community.

## Electrical Engineering Technology

Electrical engineering technology (EET) is the field that implements and applies principles of electrical engineering. With a greater focus on application and implementation, electrical engineering technologists help design, develop, test, and manufacture electrical and electronic equipment such as communication equipment, radar and industrial systems, medical monitoring equipment, control devices, and computer technology. As the largest branch of engineering technology, it includes a diverse range of disciplines including electronics, embedded systems, control systems, instrumentation, telecommunications, and power systems.

The Bachelor of Science (B.S.) degree in Electrical Engineering Technology at UW-Green Bay is a professional program that prepares students for careers in electrical engineering technology with the technical and managerial skills necessary to enter careers in the design application, installation, manufacturing, operation, and maintenance of electrical systems. Students specialize in product improvement, manufacturing, construction, and operational engineering functions. The focus of the program is the application of engineering principles to the solution of practical problems. Students will develop skills in hands on application labs and courses that explore the fundamentals of electronics, mathematics, physics, computers, and control systems. Teamwork, technical writing, and project management are also emphasized throughout the curriculum. The goal of the major is to develop well rounded engineering technologists that can adapt and succeed in a highly competitive workplace.

Students will benefit from relationships with local technical colleges, and local industry to complete a B.S. in engineering technology in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

## Electrical Engineering Technology Program Learning Outcomes

1. Program graduates will secure and maintain employment in appropriate EET positions industry-wide and perform all functions assigned to an electrical engineering technologist.
2. Graduates will apply their knowledge of mathematics, science, engineering technology, and computing to identify, analyze, and solve problems pertaining to design, development, and implementation of electronic systems.
3. Graduates will exhibit a desire for life-long learning through higher education, technical training, teaching, membership in professional societies, and other developmental activities and will achieve positions of increased responsibility through these activities.
4. Graduates will demonstrate high levels of oral and written communication skills, critical thinking, responsibility and ethical behavior, teamwork and appreciation for diversity, and leadership in their careers.

## Contact

For more information contact:
Jagadeep Thota, Ph.D.
Chair, Engineering
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Email: thotaj@uwgb.edu
or
Patricia Terry, Ph.D.
Chair, Richard J. Resch School of Engineering

Phone: 920-465-2749
Email: terryp@uwgb.edu

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 29 |
| ENGR 236 | Technical Writing |  |
| ET 101 | Fundamentals of Engineering Technology |  |
| ET 105 | Fundamentals of Drawing |  |
| ET 206 | Chemistry for Engineers |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 320 | Linear Algebra and Matrix Theory |  |
| Physics (choose one option): |  |  |
| PHYSICS 103 <br> \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Fundamentals Courses |  | 28 |
| ENGR 120 | Electrical Circuits I |  |
| ENGR 121 | Electrical Circuits I Lab |  |
| ENGR 210 | Electrical Circuits II |  |
| ENGR 211 | Electrical Circuits II Lab |  |
| ENGR 222 | Electronic Devices |  |
| ENGR 223 | Electronic Devices Lab |  |
| ENGR 224 | Electrical Codes, Safety, and Standards |  |
| ENGR 320 | Energy Conversion |  |
| ENGR 321 | Energy Conversion Lab |  |
| ENGR 328 | Microcontrollers and Programmable Logic Controllers |  |
| ENGR 329 | Microcontrollers and Programmable Logic Controllers Lab |  |
| ET 142 | Introduction to Programming |  |
| ET 250 | Continuous Signals and Linear Systems |  |
| Advanced Courses |  | 25 |
| ENGR 310 | Digital Logic Design |  |
| ENGR 311 | Digital Logic Design Lab |  |
| ENGR 346 | Electrical Power Systems |  |
| ENGR 348 | Electromagnetic Fields and Applications |  |
| ENGR 434 | Power Electronics |  |
| ET 340 | Advanced Programmable Logic Controllers |  |
| ET 342 | Supervisory Control and Data Acquisition |  |
| ET 350 | Data Communication and Protocols |  |
| ET 360 | Project Management |  |
| Capstone Requirement |  | 3 |
| ET 400 | Co-op/Internship in Engineering Technology |  |
| or ET 410 | Capstone Project |  |
| Technical Electives (choose three courses): |  | 9 |
| ENGR 334 | Industrial Decision Processes |  |
| ENGR 402 | Smart Cities: Engineering the Future |  |
| ENGR 414 | Power System Analysis and Protection |  |
| ENGR 426 | Wireless Communications |  |
| ENGR 428 | Wireless Networks |  |
| ENGR 493 | Special Topics in Electrical Engineering |  |
| ENGR 498 | Independent Study |  |


| ENGR 494 | Co-op |
| :--- | :--- |
| ET 415 | Solar and Alternate Energy Systems |

## Total Credits

## Curriculum Guide

The following curriculum guide is for a four-year Electrical Engineering Technology degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available. This program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

Total $\mathbf{1 2 4}$ credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| ET 101 | Fundamentals of Engineering Technology | 2 |
| ET 105 | Fundamentals of Drawing | 3 |
| First Year Seminar |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| ENGR 120 | Electrical Circuits I | 3 |
| ENGR 121 | Electrical Circuits I Lab | 1 |
| ET 142 | Introduction to Programming | 3 |
| General Education |  | 3 |
|  | Credits | 14 |



| Junior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| ET 250 | Continuous Signals and Linear Systems | 3 |
| ENGR 310 | Digital Logic Design | 3 |
| ENGR 311 | Digital Logic Design Lab | 1 |
| ENGR 348 | Electromagnetic Fields and Applications | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| ENGR 328 | Microcontrollers and Programmable Logic Controllers | 3 |
| ENGR 329 | Microcontrollers and Programmable Logic Controllers Lab | 1 |
| ENGR 346 | Electrical Power Systems | 3 |
| ET 350 | Data Communication and Protocols | 3 |
| ET 360 | Project Management | 3 |


| General Education |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| ET 340 | Advanced Programmable Logic Controllers | 3 |
| ET 342 | Supervisory Control and Data Acquisition | 3 |
| Technical Elective I |  | 3 |
| Technical Elective II |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| $\begin{aligned} & \text { ET } 400 \\ & \text { or ET } 410 \end{aligned}$ | Co-op/Internship in Engineering Technology or Capstone Project | 3 |
| ENGR 434 | Power Electronics | 3 |
| Technical Elective III |  | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 124 |

Technical Electives (choose any three):

1. ET 415 Solar and Alternate Energy Systems (3 s.h.)
2. ENGR 334 Industrial Decision Processes (3 s.h.)
3. ENGR 402 Smart Cities: Engineering the Future (3 s.h.)
4. ENGR 414 Power System Analysis and Protection (3 s.h.)
5. ENGR 426 Wireless Communications (3 s.h.)
6. ENGR 428 Wireless Networks (3 s.h.)
7. ENGR 493 Special Topics in Electrical Engineering (3 s.h.)
8. ENGR 494 Co-op (1-2 s.h.)
9. ENGR 498 Independent Study (1-4 s.h.)

## Faculty

Maruf Hossain; Professor; Ph.D., University of Memphis
John F Katers; Professor; Ph.D., Marquette University*
Patricia A Terry; Professor; Ph.D., University of Colorado, chair*
Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina
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Mohammad Mahfuz; Associate Professor; Ph.D., University of Ottawa
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Kpoti (Stefan) Gunn; Assistant Professor; Ph.D., Ohio State University
Jian Zhang; Assistant Professor; Ph.D., Mississippi State University
Taskia Ahammad Khan; Assistant Teaching Professor; M.S., Bradley University
Nabila Rubaiya; Assistant Teaching Professor; M.S., University of Wisconsin - Milwaukee

## English

(Bachelor of Arts)
Courses in English develop students' understanding of important works of American, English, and world literatures, give them awareness of - and appreciation for - our literary heritage, provide them with historical and theoretical perspectives, and deepen their insight into their own experience.

These courses also develop students' ability to express their ideas orally and in writing and to conduct research. The English program also offers courses in the writing of poetry and fiction, and an emphasis in creative writing.

Students enroll in English classes for a wide variety of reasons, ranging from personal growth and enrichment to preparation for a profession or career. Graduates in English have found employment in teaching, personnel work, public relations, business management, journalism, publishing, and many other fields requiring a strong liberal arts background and communication skills.

Students majoring in English often select minors in Humanistic Studies, Design Arts, or Arts Management, but may choose Human Development, Democracy and Justice Studies, or other appropriate programs. Students majoring in English who wish to teach in the secondary public schools must minor in Education.

Students seeking information on teacher certification should contact the Education Office.

## Learning Outcomes

Students in the English major will:

- Critically read and interpret diverse literary texts using literary techniques, contextual information, scholarly research, and/or theoretical lenses.
- Create original works that demonstrate a unique voice, argument, and/or point of view and that reflect familiarity with key themes in the broader fields of literary studies and creative writing.
- Understand complex social and historical contexts that have shaped and continue to shape literature.
- Critique the systems of power and privilege that have shaped literature and our relationship to those systems.

In addition to the above-listed Outcomes for English majors, students in the Creative Writing emphasis in English will:

- Create, draft, and revise works in multiple genres and forms.
- Analyze the techniques and construction of various written expressions.
- Critique works by peers and published authors alike in various classroom settings, including the writing workshop.
- Situate their work within a larger audience of readers and publishing markets.


## Major Area of Emphasis (p. 170)

Students must complete requirements in one of the following areas of emphasis:

- Creative Writing
- English Education
- Literature


## Minor

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ENGLISH 214 | Introduction to English Literature I |
| ENGLISH 290 | Literary Studies |
| Choose one of the following: |  |
| ENGLISH 104 | Introduction to Literature |
| ENGLISH 206 | Women in Literature |
| ENGLISH 212 | Introduction to Creative Writing |
| ENGLISH 215 | Introduction to English Literature II |
| ENGLISH 216 | Introduction to American Literature I |
| ENGLISH 217 | Introduction to American Literature II |
| ENGLISH 236 | Multicultural American Literature |
| Upper-Level Courses |  |
| ENGLISH 431 | Shakespeare |
| Choose 9 credits of additional $\mathbf{3 0 0}$ | $\mathbf{1 2}$ |

Total Credits

## Curriculum Guide

The following is only an example of a four-year English degree program and is subject to change without notice. Students should consult a English program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

## An example: Four year plan for English Major with a Literature Emphasis; Minor in Humanities

120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HUM STUD 201 | Introduction to the Humanities | 3 |
| WF 105 | Research and Rhetoric | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGLISH 219 | World Literatures II | 3 |
| HISTORY 101 | Foundations of Western Culture I | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| ENGLISH 214 | Introduction to English Literature I | 3 |
| ENGLISH 290 | Literary Studies | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGLISH 215 | Introduction to English Literature II | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| ENGLISH 216 or ENGLISH 217 | Introduction to American Literature I or Introduction to American Literature II | 3 |
| ENGLISH 3XX elective |  | 3 |
| Perspectives Classical course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGLISH 331 | Major American Prose Fiction | 3 |
| Perspectives Medieval course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| ENGLISH 431 | Shakespeare | 3 |
| ENGLISH 3XX elective |  | 3 |
| ENGLISH 3XX elective |  | 3 |
| HUM STUD 3XX elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGLISH 340 | History of the English Language | 3 |
| HUM STUD 480 | Humanities Seminar | 3 |


| ENGLISH 3XX elective |  | 3 |
| :--- | :--- | ---: |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 0}$ |

## Faculty

Rebecca A Meacham; Professor; Ph.D., University of Cincinnati
Rebecca L Nesvet; Professor; Ph.D., University of North Carolina - Chapel Hill
Charles A Rybak; Professor; Ph.D., University of Cincinnati, chair
Jennifer Young; Professor; Ph.D., Case Western Reserve University
Ann Mattis; Associate Professor; Ph.D., Loyola University
Valerie Murrenus-Pilmaier; Associate Professor; Ph.D., Marquette University
Julialicia Case; Assistant Professor; Ph.D., University of Cincinnati
Jonas Gardsby; Assistant Professor; Ph.D.
Kristopher Purzycki; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee

## English Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Creative Writing
- English Education
- Literature


## Creative Writing

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 15 |
| ENGLISH 201 | Ethics in Writing |  |
| ENGLISH 212 | Introduction to Creative Writing |  |
| ENGLISH 226 | Grammar |  |
| ENGLISH 290 | Literary Studies |  |
| Choose 1 additional Lower-Level Literature Course: |  |  |
| ENGLISH 206 | Women in Literature |  |
| ENGLISH 214 | Introduction to English Literature I |  |
| ENGLISH 215 | Introduction to English Literature II |  |
| ENGLISH 216 | Introduction to American Literature I |  |
| ENGLISH 217 | Introduction to American Literature II |  |
| ENGLISH 218 | World Literatures |  |
| ENGLISH 219 | World Literatures II |  |
| ENGLISH 236 | Multicultural American Literature |  |
| ENGLISH 264 | Topics in Literature |  |
| Upper-Level Courses |  | 24 |
| Required: |  |  |
| ENGLISH 301 | Intermediate Creative Writing |  |
| Upper-Level Writing Workshops (choose 2 courses): |  |  |
| ENGLISH 302 | Short Fiction Writing Workshop |  |
| ENGLISH 303 | Advanced Poetry Writing Workshop |  |


| ENGLISH 304 | Creative Nonfiction Writing |
| :---: | :---: |
| ENGLISH 305 | Novel Writing Workshop |
| ENGLISH 306 | Novel Revision Workshop |
| ENGLISH 307 | Writing the Environment Workshop |
| ENGLISH 309 | Co-Creative Writing Workshop |
| ENGLISH 310 | Topics in Game Writing |
| ENGLISH 312 | Topics in Creative Writing |
| ENGLISH 314 | Topics in Professional \& Technical Writing |
| Upper-Level Literature courses (choose 4 courses): ${ }^{1}$ |  |
| ENGLISH 315 | The British Novel |
| ENGLISH 319 | Children's and Adolescent Literature |
| ENGLISH 320 | Major Drama |
| ENGLISH 322 | Major Poetry |
| ENGLISH 326 | Topics in Publishing |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 333 | Literary Themes |
| ENGLISH 335 | Literary Eras |
| ENGLISH 336 | American Ethnic Literature |
| ENGLISH 338 | World Literatures |
| ENGLISH 340 | History of the English Language |
| ENGLISH 344 | African American Literature |
| ENGLISH 345 | LGBTQ Literature |
| ENGLISH 364 | Literary Topics |
| ENGLISH 431 | Shakespeare |
| ENGLISH 436 | Major Author(s) |
| Practicum (Choose 1 course) |  |
| ENGLISH 324 | Sheepshead Review Practicum |
| ENGLISH 410 | Live Video Streaming Practicum |
| ENGLISH 424 | Book Editing Practicum |
| ENGLISH 428 | Practicum in Community Engaged Writing |

Total Credits
1 Some courses may vary by topic, so some of the above may be repeated for credit if the topic differs. See adviser for recommendations.

## English Education

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| COMM 133 | Fundamentals of Public Address |
| COMM 102 | Introduction to Communication |
| ENGLISH 214 | Introduction to English Literature I |
| ENGLISH 216 | Introduction to American Literature I |
| ENGLISH 217 | Introduction to American Literature II |
| ENGLISH 290 | Literary Studies |
| Choose one: | Introduction to English Literature II |
| ENGLISH 215 | The English Novel: 1850's to the Present |
| or ENGLISH 316 |  |
| Choose one: | Introduction to Language |
| HUM STUD 160 | Grammar |
| or ENGLISH 226 |  |
| Upper-Level Courses | Topics in Creative Writing |
| ENGLISH 312 | Shakespeare |
| ENGLISH 431 |  |


| HUM STUD 321 | Sociolinguistics |
| :---: | :---: |
| Choose one: |  |
| $\begin{aligned} & \text { EDUC } 319 \\ & \text { or ENGLISH } 319 \end{aligned}$ | Adolescent Literature in Middle and Secondary School Reading Children's and Adolescent Literature |
| Choose one: |  |
| $\begin{aligned} & \text { ENGLISH } 336 \\ & \text { or ENGLISH } 344 \end{aligned}$ | American Ethnic Literature African American Literature |
| Choose one: ${ }^{2}$ |  |
| ENGLISH 218 | World Literatures |
| ENGLISH 219 | World Literatures II |
| ENGLISH 338 | World Literatures |
| Choose a minimum of 9 credits from the following upper-level Literature elective courses: ${ }^{3}$ |  |
| ENGLISH 301 | Intermediate Creative Writing |
| ENGLISH 302 | Short Fiction Writing Workshop |
| ENGLISH 303 | Advanced Poetry Writing Workshop |
| ENGLISH 304 | Creative Nonfiction Writing |
| ENGLISH 315 | The British Novel |
| ENGLISH 320 | Major Drama |
| ENGLISH 322 | Major Poetry |
| ENGLISH 323 | Topics in Literary Criticism |
| ENGLISH 326 | Topics in Publishing |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 333 | Literary Themes |
| ENGLISH 335 | Literary Eras |
| ENGLISH 336 | American Ethnic Literature |
| ENGLISH 338 | World Literatures |
| ENGLISH 340 | History of the English Language |
| ENGLISH 344 | African American Literature |
| ENGLISH 345 | LGBTQ Literature |
| ENGLISH 424 | Book Editing Practicum |
| ENGLISH 436 | Major Author(s) |

Total Credits
2 If ENGLISH 218 or ENGLISH 219 is taken to fulfill an upper-level requirement, an additional 3 credits must be taken from the upper-level Literature elective course list above.
3 Some courses may vary by topic, so some of the above may be repeated for credit if the topic differs. See adviser for recommendations.

## Literature

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ENGLISH 290 | Literary Studies |
| ENGLISH 201 | Ethics in Writing |
| Elective courses (choose 2 courses): |  |
| ENGLISH 206 | Women in Literature |
| ENGLISH 214 | Introduction to English Literature I |
| ENGLISH 215 | Introduction to English Literature II |
| ENGLISH 216 | Introduction to American Literature I |
| ENGLISH 217 | Introduction to American Literature II |
| ENGLISH 218 | World Literatures |
| ENGLISH 219 | World Literatures II |
| ENGLISH 236 | Multicultural American Literature |


| Required |  |
| :---: | :---: |
| ENGLISH 315 | The British Novel |
| ENGLISH 338 | World Literatures |
| ENGLISH 431 | Shakespeare |
| Choose one: |  |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 322 | Major Poetry |
| Take 3 credits (1 course) that support EDI (Equity, Diversity, and Inclusion) outcomes |  |
| ENGLISH 344 | African American Literature |
| ENGLISH 336 | American Ethnic Literature |
| ENGLISH 345 | LGBTQ Literature |
| Take 3 credits (1 course) of Skills/Professionalization/Application |  |
| ENGLISH 324 | Sheepshead Review Practicum |
| ENGLISH 327 | Digital Platforms for Publishing |
| ENGLISH 328 | Interfaces |
| ENGLISH 329 | Placemaking and Writing |
| ENGLISH 410 | Live Video Streaming Practicum |
| ENGLISH 424 | Book Editing Practicum |
| ENGLISH 428 | Practicum in Community Engaged Writing |
| ENGLISH 495 | Teaching Assistantship |
| ENGLISH 497 | Internship |
| Take 6 credits (two courses) from Genres/Topics/Context category |  |
| ENGLISH 319 | Children's and Adolescent Literature |
| ENGLISH 320 | Major Drama |
| ENGLISH 322 | Major Poetry (if not used above) |
| ENGLISH 326 | Topics in Publishing |
| ENGLISH 331 | Major American Prose Fiction (if not used above) |
| ENGLISH 333 | Literary Themes |
| ENGLISH 335 | Literary Eras |
| ENGLISH 364 | Literary Topics |
| ENGLISH 436 | Major Author(s) |
| ENGLISH 499 | Travel Course |
| ELECTIVES: Choose any 3 credits (1 course) of Upper Level English courses not already used above (includes Writing Workshops, Practicums, or Literature) |  |

## Environmental Engineering Technology

(Bachelor of Science)

## Accreditation

The Environmental Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

## UW-Green Bay Engineering Technology

Combine hands-on learning with academic coursework and get ready for high-demand jobs in the growing field of engineering technology. The University partners with regional leaders and technical colleges so that you will be prepared for an ever-changing industry. Get the technical skills that will make you an expert and the critical-thinking skills that will make you indispensable.

## Engineering Technology Mission

All of the Engineering Technology programs (Electrical, Mechanical and Environmental) include a strong liberal arts base along with a number of handson experiences, including a capstone experience or internship that often will be working with businesses and organizations within the community.

## Environmental Engineering Technology

Environmental engineering technology is the application of engineering principles and interdisciplinary environmental sciences to address challenges associated with human impacts on the environment. This field characterizes the dynamic relationship between human activity and the environment to determine strategies to minimize negative impacts. Career opportunities as an environmental engineering technologist vary greatly including municipal and industrial treatment facility technologists, laboratory and environmental quality technicians, health and safety managers, environmental consultants, and sustainability managers for industry and governmental agencies.

The Bachelor of Science (B.S.) degree in Environmental Engineering Technology at UW-Green Bay is an interdisciplinary program that prepares students for careers in applied environmental engineering using critical problem solving skills needed in regional and national industries, manufacturing, governmental, and engineering services firms. The focus of the program is the application of engineering principles to the solution of practical problems. Students will develop skills in hands on applications and interdisciplinary coursework in engineering, mathematics, geoscience, chemistry, physics, and biology applied to a variety of environmental challenges. Students examine the effects of pollution on humans and ecosystems, form strategies to improve processes to prevent or minimize negative effects, and develop sustainable solutions to using available resources. Teamwork, technical writing, and project management are also emphasized throughout the curriculum. The goal of the major is to develop well rounded engineering technologists that can adapt and succeed in a highly competitive workplace.

Students will benefit from relationships with local technical colleges and local industry to complete a B.S. in engineering technology in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

## Environmental Engineering Technology Program Learning Outcomes

1. Program graduates will be employed as an environmental engineering technologist and perform all functions assigned to an environmental engineering technologist.
2. Graduates will apply multidisciplinary approaches including engineering, chemistry, mathematics, physics, geosciences, and biology to manage the unique challenges and balance the competing social, political, economic, and technical goals of environmental problems and solutions.
3. Graduates will exhibit a desire for life-long learning through higher education, technical training, teaching, membership in professional societies, and other developmental activities and will achieve positions of increased responsibility through these activities.
4. Graduates will demonstrate high levels of oral and written communication skills, critical thinking, responsibility and ethical behavior, and leadership in their careers.
5. Graduates will function effectively both as a leader and as a member of project teams and demonstrate an appreciation for diversity.

## Contact

For more information contact:
Jagadeep Thota, Ph.D.
Chair, Engineering
Phone: 920-465-2817
Email: thotaj@uwgb.edu
or
Patricia Terry, Ph.D.
Chair, Richard J. Resch School of Engineering
Phone: 920-465-2749
Email: terryp@uwgb.edu
Major

| Code <br> Supporting Courses <br> BIOLOGY 201 | Title |
| :--- | :--- |
| BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes |
| CHEM 211 | Principles of Biology Lab: Cellular and Molecular Processes |
| CHEM 212 | Principles of Chemistry I |
| CHEM 213 | Principles of Chemistry II |
| CHEM 214 | Principles of Chemistry I Laboratory |


| ENGR 236 | Technical Writing |  |
| :---: | :---: | :---: |
| ET 101 | Fundamentals of Engineering Technology |  |
| ET 103 | Surveying |  |
| ET 105 | Fundamentals of Drawing |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 260 | Introductory Statistics |  |
| Physics (choose one option): |  |  |
| PHYSICS 103 \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Fundamentals Courses |  | 28 |
| BIOLOGY 322 | Environmental Microbiology |  |
| CHEM 207 | Laboratory Safety |  |
| ENV SCI 320 | The Soil Environment |  |
| ET 201 | Introduction to Environmental Engineering |  |
| ET 203 | Introduction to Water and Waste Water |  |
| ET 218 | Fluid Mechanics |  |
| ET/ENV SCI 330 | Hydrology |  |
| ET 391 | GIS |  |
| GEOSCI 202 | Physical Geology |  |
| Advanced Courses |  | 9 |
| ET 360 | Project Management |  |
| ET/ENV SCI 334 | Solid Waste Management |  |
| ET 331 | Advanced Water and Waste Water Treatment |  |
| Capstone Requirement |  | 3 |
| ET 400 | Co-op/Internship in Engineering Technology |  |
| or ET 410 | Capstone Project |  |
| Electives (choose three courses): |  | 9 |
| ECON 305 | Environmental Economics |  |
| ENV SCI 305 | Environmental Fate and Transport |  |
| ENV SCI 433 | Ground Water: Resources and Regulations |  |
| ET/ENV SCI 415 | Solar and Alternate Energy Systems |  |
| ET/ENV SCI 424 | Hazardous and Toxic Materials |  |
| ET 430 | Sustainable Agricultural Management |  |
| ET 464 | Atmospheric Pollution and Abatement |  |
| GEOSCI 432 | Hydrogeology |  |
| WATER 444 | Aqueous Geochemistry |  |

Total Credits

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| ET 103 | Surveying |  |
| ET 201 | Introduction to Environmental Engineering |  |
| ET 203 | Introduction to Water and Waste Water |  |
| Upper-Level Courses |  |  |
| Required |  | 3 |
| ET 331 <br> or ENV SCI 335 | Advanced Water and Waste Water Treatment Water and Waste Water Treatment |  |
| Electives: Complete ane 3 courses |  | 9-10 |


| ENV SCI 305 | Environmental Fate and Transport |
| :--- | :--- |
| ENV SCI 433 | Ground Water: Resources and Regulations |
| ET 334 | Solid Waste Management |
| ET 424 | Hazardous and Toxic Materials |
| ET 430 | Sustainable Agricultural Management |
| ET 464 | Atmospheric Pollution and Abatement |
| GEOSCI 432 | Hydrogeology |
| WATER 410 | Agriculture-Water Nexus in Wisconsin |
| WATER 411 | Agriculture-Water Nexus Field Experience |
| WATER 444 | Aqueous Geochemistry |

Total Credits

## Curriculum Guide

The following curriculum guide is for a four-year Environmental Engineering Technology degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available. This program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

Total $\mathbf{1 2 1}$ credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| ET 101 | Fundamentals of Engineering Technology | 2 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| ET 103 | Surveying | 3 |
| ET 105 | Fundamentals of Drawing | 3 |
| ET 201 | Introduction to Environmental Engineering | 3 |
| ET 203 | Introduction to Water and Waste Water | 3 |
| PHYSICS 103 or PHYSICS 201 | Fundamentals of Physics I or Principles of Physics I | 4 |
| PHYSICS 203 | Introductory Physics Lab I | 1 |
|  | Credits | 17 |
| Spring |  |  |
| BIOLOGY 322 | Environmental Microbiology | 4 |
| GEOSCI 202 | Physical Geology | 4 |
| MATH 260 | Introductory Statistics | 4 |
| ENGR 236 | Technical Writing | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| ENV SCI 320 | The Soil Environment | 4 |
| ET 330 | Hydrology | 3 |
| ET 391 | GIS | 3 |
| General Ed |  | 3 |


| General Ed |  |
| :---: | :---: |
|  | Credits |
| Spring |  |
| ET 218 | Fluid Mechanics |
| ET 331 | Advanced Water and Waste Water Treatment |
| ET 334 | Solid Waste Management |
| General Ed |  |
| General Ed |  |
|  | Credits |
| Senior |  |
| Fall |  |
| ET 360 | Project Management |
| Elective I |  |
| Elective II |  |
| General Ed |  |
| General Ed |  |
|  | Credits |
| Spring |  |
| $\begin{aligned} & \text { ET } 400 \\ & \quad \text { or ET } 410 \end{aligned}$ | Co-op/Internship in Engineering Technology or Capstone Project |
| Elective III |  |
| General Ed |  |
| General Ed |  |
|  | Credits |
|  | Total Credits |

## Faculty

Maruf Hossain; Professor; Ph.D., University of Memphis
John F Katers; Professor; Ph.D., Marquette University*
Patricia A Terry; Professor; Ph.D., University of Colorado, chair*
Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina
Md Rasedul Islam; Associate Professor; Ph.D., University of Wisconsin - Madison
Mohammad Mahfuz; Associate Professor; Ph.D., University of Ottawa
Jagadeep Thota; Associate Professor; Ph.D., University of Nevada - Las Vegas
Elie Atallah; Assistant Professor; Ph.D., University of Central Florida
Kpoti (Stefan) Gunn; Assistant Professor; Ph.D., Ohio State University
Jian Zhang; Assistant Professor; Ph.D., Mississippi State University
Taskia Ahammad Khan; Assistant Teaching Professor; M.S., Bradley University
Nabila Rubaiya; Assistant Teaching Professor; M.S., University of Wisconsin - Milwaukee

## Environmental Policy and Planning

## (Bachelor of Science)

Environmental Policy and Planning is an environmental policy, planning, and design program for both cities and the natural environment. It is designed to prepare students for a variety of challenging professions involving the planning, analysis, design, and administration of policies and programs dealing with the natural and human-made environment. Students who major in Environmental Policy and Planning consider environmental challenges through the lens of law, politics, and planning. The program provides students with a solid background in environmental policy, environmental law, environmental planning, environmental design, and an introduction to sustainable development and community-based environmental protection. It also prepares students for graduate work in environmental studies, public policy, public administration, law, community planning, and related fields.

Environmental Policy and Planning majors engage in both theoretical and applied study in their courses, and have flexibility to choose from two emphases. Students may serve as interns in planning agencies in local governments, work in teams with a professor to conduct community planning
and design, work with environmental organizations, or develop programs for sustainable communities. The two program emphases from which majors can choose are Environmental Policy and Planning (managing resources in the built and natural environment), and the accelerated Environmental Policy program combining an undergraduate and master's degree. We also have a minor, which pairs well with many majors on campus.

The major in Environmental Policy and Planning consists of two sets of requirements: 1) required supporting and analytical courses and 2) upperlevel courses within an area of emphasis. Students should discuss these Emphases with their program advisor when establishing an academic plan.

The Environmental Policy and Planning emphasis focuses on environmental law, policy, and sustainable land use and planning methods for human settlements and our surrounding environments in an era of climate change and resource scarcity. This emphasis teaches you skills in designing and planning community redevelopment; protection and management of land and natural resources (e.g., cities, farmland, forests, etc.) at the community and regional levels, techniques in geographic information systems, and how to adapt to the accelerating human influences on our environment. You learn about environmental policy development and implementation; methods of policy analysis; and political, administrative, legal, and economic issues in environmental policy.

This emphasis helps prepare students for careers and graduate work in environmental planning; community and regional planning; community-based environmental management; public, nonprofit, and private market sectors as environmental policy analysts; environmental management; government relations; and related careers; as well as for graduate work in environmental studies, public policy, public affairs, administration, and law.

The accelerated Environmental Policy major is an integrated undergraduate and master's program where you take the required courses of the Environmental Policy and Planning major and then take master's level courses focusing more on environmental law, policy, and administration, thus achieving an undergraduate and graduate degree in five years.

A minor in Environmental Policy and Planning is similar to the major in developing knowledge and skills in planning, decision-making, public policy, environmental design, political and economic processes, as well as the analytic capacities to participate in decision-making. An interdisciplinary minor in Environmental Policy and Planning is a good choice for students who wish to major in Environmental Science, Public Administration, Political Science, Economics, Urban Studies, Democracy and Justice Studies, or a number of other programs.

## Considering a Double Major or Certificate?

Some students may want to consider a double major, combining Environmental Policy and Planning with Public Administration. Other popular second majors include Political Science, Urban Studies, and Economics. A double major or a minor in one of these fields complements the Environmental Policy and Planning curriculum, and makes students stronger candidates when seeking careers or entry into graduate programs.

A certificate in Environmental Sustainability and Business fits well with a major or minor in Environmental Policy and Planning. Likewise, students interested in working in an non-governmental or non-profit organization might explore the certificate in Nonprofit Management. Students should contact a faculty adviser early in their academic careers for advice on these options.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Major Area of Emphasis (p. 180)

Students must complete requirements in one of the following areas of emphasis: (p. 180)

- Environmental Policy and Planning (p. 180)
- Environmental Policy (Accelerated) / Integrated with graduate Environmental Science \& Policy program (p. 180)


## Minor

| Code |
| :--- |
| Supporting Courses |
| Required:  <br> EPP 102 Environment and Society <br> GEOG 250 Introduction to Geographic Information Systems (GIS) <br> Choose two of the following courses:  <br> ECON 203 Micro Economic Analysis <br> PUB ADM 202 Introduction to Public Policy <br> PUB ADM 215 Introduction to Public Administration <br> Upper-Level Courses  <br> Complete these required courses:  <br> EPP 324 Transitioning to Sustainable Communities <br> PUB ADM 301 Environmental Politics and Policy |

PUB ADM 322 Environmental Planning

## Complete three of the following courses:

| EPP 323 | Sustainable Land Use |
| :--- | :--- |
| EPP 351 | Water Resources Policy and Management |
| EPP 379 | Natural Resources Policy, Law, and Administration |
| EPP 431 | Building Sustainable Landscapes |
| GEOG 321 | Coastal Resources Policy and Management |
| GEOG 350 | GIS in Public and Environmental Policy |
| POL SCI 378 | Environmental Law |
| PUB ADM 306 | Regulatory Policy and Administration |
| PUB ADM 408 | Public Policy Analysis |
| PUB ADM 497 | Internship |

Total Credits ..... 30

## Curriculum Guide

An example: Four year plan for Environmental Policy and Planning Major with Environmental Policy and Planning Emphasis
This is a representative plan. Check with your advisor and EPP professors to see that your plan meets the requirements for this emphasis.
120 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| EPP 102 | Environment and Society | 3 |
| EPP 152 | Introduction to Graphic Display and Planning | 3 |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| ECON 203 | Micro Economic Analysis | 3 |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) | 3 |
| Env Science or Geo Science Lower Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |

Spring
GEOG $350 \quad$ GIS in Public and Environmental Policy 3
Env Science or Geo Science Lower Level Elective 3


General Ed 3

Junior
Fall

Environmental Policy and Planning Upper Level Elective 3




## Faculty

Marcelo P Cruz; Professor; Ph.D., University of California - Los Angeles
Ray Hutchison; Professor; Ph.D., University of Chicago
Aaron C Weinschenk; Professor; Ph.D., University of Wisconsin - Milwaukee*
David J Helpap; Associate Professor; Ph.D., University of Wisconsin - Milwaukee*
Thomas S Nesslein; Associate Professor; Ph.D., University of Washington - Seattle
Laurel E Phoenix; Associate Professor; Ph.D., State University of New York - College of Environmental Science and Forestry*
Lora H Warner; Associate Professor; Ph.D., Virginia Commonwealth University
Elizabeth E Wheat; Associate Professor; Ph.D., Western Michigan University*

## Environmental Policy and Planning Major <br> Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Environmental Policy and Planning
- Environmental Policy (Accelerated) / Integrated with graduate Environmental Science \& Policy program


## Environmental Policy and Planning

| Code | Title |
| :--- | :--- |
| Core Supporting Courses |  |
| Required: |  |
| EPP 102 | Environment and Society |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |
| Complete one Statistics or Economics course: |  |
| BUS ADM 216 | Business Statistics |


| COMM SCI 301 | Foundations for Social Research |  |
| :---: | :---: | :---: |
| ECON 203 | Micro Economic Analysis |  |
| ECON 305 | Environmental Economics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Upper Level Courses |  |  |
| Required: |  | 18 |
| EPP 324 | Transitioning to Sustainable Communities |  |
| EPP 412 | Urban Planning |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| POL SCI 378 | Environmental Law |  |
| PUB ADM 322 | Environmental Planning |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| Electives |  | 12 |
| ENV SCI 337 | Environmental GIS |  |
| EPP 152 | Introduction to Graphic Display and Planning |  |
| EPP 254 | Introduction to Designing with Communities and Neighborhoods |  |
| EPP 323 | Sustainable Land Use |  |
| EPP 379 | Natural Resources Policy, Law, and Administration |  |
| EPP 380 | Global Environmental Politics and Policy |  |
| GEOG 321 | Coastal Resources Policy and Management |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| SOCIOL 201 | City Life and Globalization |  |
| PUB ADM 408 | Public Policy Analysis |  |
| PUB ADM 495 | Teaching Assistantship |  |
| PUB ADM 497 | Internship |  |
| PUB ADM 498 | Independent Study |  |
| PUB ADM 499 | Travel Course |  |

## Total Credits

## Environmental Policy (Accelerated) - Integrated with graduate Environmental Science \& Policy program

| Code | Title |  |
| :---: | :---: | :---: |
| Supporting Courses |  | 15-16 |
| Required: |  |  |
| EPP 102 | Environment and Society |  |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis |  |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |  |
| Complete one Public Policy course: |  |  |
| POL SCI 101 | American Government and Politics |  |
| PUB ADM 202 | Introduction to Public Policy |  |
| Complete one Research/Statistics course: |  |  |
| BUS ADM 216 | Business Statistics |  |
| COMM SCI 301 | Foundations for Social Research |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Additional Requirements |  |  |
| Required Supporting Courses: |  | 6 |
| ECON 203 | Micro Economic Analysis |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| Upper-Level Courses |  |  |
| Required: |  | 18 |


| EPP 323 | Sustainable Land Use |  |
| :---: | :---: | :---: |
| EPP 351/551 | Water Resources Policy and Management \# |  |
| POL SCI 378/578 | Environmental Law |  |
| POL SCI 380/580 | Global Environmental Politics and Policy |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| PUB ADM 408 | Public Policy Analysis |  |
| Electives |  | 12 |
| Complete two Policy or Planning courses: |  |  |
| EPP 379/579 | Natural Resources Policy, Law, and Administration \# |  |
| POL SCI 406/606 | State and Local Government \# |  |
| PUB ADM 306/506 | Regulatory Policy and Administration \# |  |
| PUB ADM 314/514 | Administrative Law \# |  |
| PUB ADM 322/522 | Environmental Planning \# |  |
| Complete one Sustainability course: |  |  |
| EPP 324 | Transitioning to Sustainable Communities |  |
| EPP 431 | Building Sustainable Landscapes |  |
| GEOG 321 | Coastal Resources Policy and Management |  |
| Other Electives: |  |  |
| ECON 453 | Cost Benefit Analysis |  |
| EPP 499 | Travel Course |  |
| PUB ADM 495 | Teaching Assistantship |  |
| PUB ADM 496 | Project/Research Assistantship |  |
| PUB ADM 497 | Internship |  |
| PUB ADM 498 | Independent Study |  |
| PUB ADM 499 | Travel Course |  |

Total Credits
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the Environmental Science \& Policy graduate office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Environmental Science

## (Bachelor of Science)

The Environmental Science major prepares students to analyze, understand, and solve environmental problems. While many universities are just beginning to recognize the need for environmental science programs, UW-Green Bay has over 50 years of teaching and research experience in the field. This Environmental Science program was one of the first in the nation and the interdisciplinary focus allows students to have a diverse education.

The Environmental Science major is interdisciplinary, emphasizing an integrated approach to knowledge in the field. Because the study of environmental problems requires a sound understanding of scientific principles, the Environmental Science major is grounded in the natural sciences and mathematics. The curriculum also includes a social science component, enabling students to gain an understanding of environmental economic and policy issues. Field experiences, internships, practicums, independent research and travel courses are also emphasized throughout the program.

This major helps students: 1) understand fundamental physical and biological processes of the natural environment; 2) recognize relationships between humans and ecosystems at local, regional, and global scales; 3) apply knowledge from multiple disciplines to environmental challenges and opportunities; 4) build practical skills for scientific problem-solving, including familiarity with laboratory and field instrumentation, ability to use current computer technologies, and experience in statistical modeling techniques; 5) demonstrate competency in collecting, managing, evaluating, interpreting, and communicating information through hands-on research; and 6) critically evaluate strategies for sustainable management and restoration of environmental systems.

Students who plan to pursue this major will apply science and mathematics in their course work. Courses in biology, chemistry, geoscience, mathematics, and physics provide the needed background. They receive hands-on and practical learning experiences in both the laboratory and the field. A significant number of graduates of this major gain entry-level positions in the environmental science field. About one-third of these positions are in the public sector and two-thirds are in the private sector, including positions with industry, business, and engineering consulting firms. Numerous graduates have also successfully completed master's and doctoral degrees.

Faculty members are actively addressing current environmental problems and their solutions through research at the regional, national and international levels. This research keeps them up to date on current trends and topics in the field, while providing opportunities for undergraduates to become involved in their research projects and gain valuable knowledge and experience. Faculty members are highly involved in the students' education, both inside and outside of the classroom and laboratories.

Environmental Science students have access to modern computer facilities which are continually upgraded. Computing software resources emphasizing geographic information systems (GIS), mathematical modeling and statistical analysis tools also are available. In addition to general-access computer laboratories, students can also use a computer laboratory dedicated to the sciences. Students wishing to gain hands-on field experiences have access to the Cofrin Center for Biodiversity, which includes the 290-acre Cofrin Memorial Arboretum on campus and several natural areas in the region including Point au Sable, Tofts Point and Kingfisher Farms. The Gary A. Fewless Herbarium, and the Richter Museum of Natural History on campus include extensive collections of plant and animal specimens. Funding opportunities are also available through the Biodiversity Center for independent student research projects.

A variety of equipment is available for environmental measurements and monitoring. Laboratory instrumentation enhances student opportunities to perform chemical analyses which are important in environmental monitoring. Such instrumentation includes mass spectrometers, infrared and UVvisible spectrophotometers, nuclear magnetic resonance spectrometers, gas chromatographs, ion chromatographs, and high-performance liquid chromatographs. In addition to opportunities to monitor air and surface-water quality, students also have the opportunity to monitor ground water; three wells have been drilled on campus specifically for that purpose.

As industries recognize their responsibility to help create and maintain a sustainable environment, often achieving efficiencies in the process, they create positions dealing with waste management, pollution reduction, and other environmental responsibilities. Many UW-Green Bay Environmental Science graduates find employment in these industries or go on to advanced study in environmental science or other scientific disciplines. The following list represents some careers that have been pursued by Environmental Science graduates: agricultural scientist, botanist, ecologist, forest ranger, oceanographer, agricultural technician, engineering technician, forester, air and water quality manager, environmental analyst, park ranger, air pollution analyst, environmental consultant, environmental educator, geologist, project manager, environmental engineer, geophysicist, biologist, hazardous waste manager, hydrologist, environmental lawyer, chemical technician, soil conservation technician, chemist, management consultant, teacher, meteorologist, urban and regional planner, civil engineer, environmental planner, microbiologist/wastewater plant operator, natural resource specialist, wildlife manager, conservationist, zoologist.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Major Area of Emphasis (p. 187)

Students must complete requirements in one of the following areas of emphasis: (p. 187)

- Environmental Science (p. 187)
- Environmental Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program (p. 187)


## Minor (http://catalog.uwgb.edu/undergraduate/programs/environmental-science/minor/)

| Code | Title |
| :--- | :--- |
| Supporting Courses ${ }^{1}$ |  |
| ENV SCI 102 Introduction to Environmental Sciences <br> MATH 260 Introductory Statistics <br> Upper-Level Courses  <br> ENV SCI 303 Environmental Sustainability <br> or ENV SCI 460 Resource Management Strategy <br> Elective Courses (choose 9 additional credits; no more than 6 credits from ENV SCI 497, 498, 499):  <br> any 300-level ENV SCI course  <br> any 400-level ENV SCI course  <br> BIOLOGY 306 Principles of Ecology <br> BIOLOGY 310 Plant Biodiversity <br> BIOLOGY 320 Field Botany <br> BIOLOGY 322 Environmental Microbiology <br> BIOLOGY 401 Fish and Wildlife Population Dynamics <br> BIOLOGY 357 Marine Biology <br> BIOLOGY 449 Wetland Ecology <br> BIOLOGY 450 Ecological Restoration |  |


| BIOLOGY 469 | Conservation Biology |
| :--- | :--- |
| BIOLOGY 499 | Travel Course |
| ET 424 | Hazardous and Toxic Materials |
| ET 464 | Atmospheric Pollution and Abatement |
| GEOSCI 325 | Regional Climatology |
| GEOSCI 421 | Geoscience Field Trip |
| GEOSCI 432 | Hydrogeology |
| GEOSCI 470 | Glacial Geology \& Landscapes |
| WATER 321 | Stable Isotopes in the Environment |

Total Credits

1 Additional courses may be necessary to satisfy prerequisites for the upper-level elective courses that a student selects.

## Curriculum Guide

The following curriculum guide is for a four-year Environmental Science degree program and is subject to change without notice. Students should consult an Environmental Science program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Environmental Science Major
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| MATH 104 | Precalculus (or MATH 202 or MATH 203) | 4 |
| First Year Seminar |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution | 3 |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution | 1 |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| ENV SCI 102 | Introduction to Environmental Sciences | 3 |
| $\begin{aligned} & \text { WF } 100 \\ & \text { or WF } 105 \end{aligned}$ | First Year Writing or Research and Rhetoric | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 306 | Principles of Ecology | 4 |
| GEOSCI 202 | Physical Geology | 4 |
| MATH 260 | Introductory Statistics | 4 |
| POL SCI 101 <br> or PUB ADM 202 | American Government and Politics or Introduction to Public Policy | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENV SCI 303 | Environmental Sustainability (or ENV SCI 460 or PU EN AF 301 or Pu En Af 378) | 3 |
| ENV SCI 336 | Environmental Statistics | 3 |
| ENV SCI 337 | Environmental GIS | 3 |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
|  | Credits | 18 |


| Junior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| ENV SCI 305 | Environmental Fate and Transport | 4 |
| ENV SCI 338 | Environmental Modeling | 2 |
| ENV SCI 339 | Scientific Writing | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENV SCI Upper Level Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| ENV SCI 467 or ENV SCl 491 or ENV SCl 492 | Capstone in Environmental Science or Senior Thesis/Research in Environmental Science or Practicum in Environmental Science | 4 |
| ENV SCI Upper Level Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| ENV SCI Upper Level Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
| General Education/Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 125 |

## Engineering Dual Degree

## Cooperative Program in Civil \& Environmental Engineering with University of Wisconsin-Milwaukee

Advisers - John Katers, professor; Patricia A. Terry, professor and coordinator
Website: www.uwgb.edu/nas/ (http://www.uwgb.edu/nas/)

## Dual Degree Program

UW-Green Bay and UW-Milwaukee also offer a Dual Degree Program in environmental science and civil and environmental engineering. Under this program a student completes three years of study in the Environmental Science major at UW-Green Bay, then transfers to UW-Milwaukee and continues for two years in the civil/environmental engineering major. Upon completion of an outlined series of courses, the student receives both a B.S. degree from UW-Green Bay in Environmental Science and a B.S. degree from UW-Milwaukee in Civil/Environmental Engineering. Students wishing to enroll in this program should see an engineering adviser prior to registration in their freshman year.

Participants in the NEW Engineering Program typically complete 60 to 72 credits at UW-Green Bay toward the degree. This includes the completion of 18 credits of general education requirements specific to this program:

- 3 credits minimum in the arts
-6 credits minimum in the humanities
- 6 credits minimum in the social sciences
- 3 credits in cultural diversity

General education courses are required of all students. These courses complement and enhance major coursework for additional exposure to other areas of knowledge and bring an understanding of the relationship among and between subject areas. At least 9 of the 18 required credits must be from courses at the 200-level or above or from 100-level courses that require at least one prerequisite.

A grade of C or better in WF 105 will satisfy UW-Milwaukee's English composition requirement.

UW-Green Bay students are eligible to apply for advancement into the major at UW-Milwaukee at the point of transfer. The UW-Green Bay Academic Advising Office has forms. The filing deadlines are October 1 for spring semester, February 15 for summer session, and June 1 for fall semester.

For information on other engineering options, refer to the Preprofessional Programs of Study section of this catalog or contact one of the engineering advisers listed above.

## Requirements for the Cooperative Program All engineering and dual degree majors must take:

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required Courses |  | 4 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 212 | Principles of Chemistry II | 1 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| ENGR 213 | Mechanics I | 3 |
| ENGR 214 | Mechanics II | 3 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 209 | Multivariate Calculus | 4 |
| PHYSICS 201 | Principles of Physics I | 4 |
| PHYSICS 202 | Principles of Physics II | 4 |
| WF 100 | First Year Writing | 3 |
| Total Credits |  | 39 |

Total Credits 39

See an adviser for additional requirements in aerospace, chemical, nuclear, and petroleum engineering.

## Faculty

Mathew E Dornbush; Professor; Ph.D., Iowa State University*
Michael L Draney; Professor; Ph.D., University of Georgia, chair*
Patrick S Forsythe; Professor; Ph.D., Michigan State University*
Woo Jeon; Professor; Ph.D., University of Wisconsin - Madison
John F Katers; Professor; Ph.D., Marquette University*
John A Luczaj; Professor; Ph.D., Johns Hopkins University*
Patricia A Terry; Professor; Ph.D., University of Colorado*
Amy T Wolf; Professor; Ph.D., University of California - Davis*
Michael E Zorn; Professor; Ph.D., University of Wisconsin - Madison*
Lisa Grubisha; Associate Professor; Ph.D., University of California - Berkeley
Jeremy J Intemann; Associate Professor; Ph.D., Iowa State University
Mohammad Mahfuz; Associate Professor; Ph.D., University of Ottawa
Tetyana Malysheva; Associate Professor; Ph.D., University of Oklahoma
Michael J McIntire; Associate Professor; Ph.D., University of California - Riverside
Brian Welsch; Associate Professor; Ph.D., Montana State University
Julie M Wondergem; Associate Professor; Ph.D., Marquette University
Elie Atallah; Assistant Professor; Ph.D., University of Central Florida
Mary E Guy; Associate Teaching Professor; M.S., University of Wisconsin - Oshkosh

Nydia D Villanueva; Associate Teaching Professor; Ph.D., University of Connecticut

## Environmental Science Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Environmental Science
- Environmental Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program


## General

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 36 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| ENV SCI 102 | Introduction to Environmental Sciences |  |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |  |
| GEOSCI 202 | Physical Geology |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one of the following courses): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| Upper-Level Courses ${ }^{1}$ |  | 29 |
| BIOLOGY 306 | Principles of Ecology |  |
| ENV SCI 305 | Environmental Fate and Transport |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 338 | Environmental Modeling |  |
| ENV SCI 339 | Scientific Writing |  |
| ENV SCI 467 | Capstone in Environmental Science |  |
| Elective Courses (choose 9 additional credits; no more than 6 credits from ENV SCI 497, 498, 499)): |  |  |
| any 300-level ENV SCI course |  |  |
| any 400-level ENV SCI course |  |  |
| BIOLOGY 310 | Plant Biodiversity |  |
| BIOLOGY 320 | Field Botany |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 357 | Marine Biology |  |
| BIOLOGY 401 | Fish and Wildlife Population Dynamics |  |
| BIOLOGY 449 | Wetland Ecology |  |
| BIOLOGY 450 | Ecological Restoration |  |
| BIOLOGY 469 | Conservation Biology |  |
| BIOLOGY 499 | Travel Course |  |
| ET 424 | Hazardous and Toxic Materials |  |
| ET 464 | Atmospheric Pollution and Abatement |  |
| GEOSCI 325 | Regional Climatology |  |
| GEOSCI 402 | Sedimentology \& Stratigraphy |  |
| GEOSCI 421 | Geoscience Field Trip |  |


| GEOSCI 432 | Hydrogeology |
| :---: | :--- |
| GEOSCI 470 | Glacial Geology \& Landscapes |
| POL SCI 378 | Environmental Law |
| or PUB ADM 301 | Environmental Politics and Policy |
| WATER 321 | Stable Isotopes in the Environment |
| WATER 444 | Aqueous Geochemistry |

1 Students intending to pursue graduate study should include additional course work of at least one year of calculus, at least one year of physics, and upper-level courses in organic chemistry.

## Environmental Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 36 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| ENV SCI 102 | Introduction to Environmental Sciences |  |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |  |
| GEOSCI 202 | Physical Geology |  |
| MATH 260 | Introductory Statistics |  |
| Mathematics (choose one of the following courses): |  |  |
| MATH 104 | Precalculus |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| Upper-Level Courses ${ }^{1}$ |  | 34 |
| BIOLOGY 306 | Principles of Ecology |  |
| ENV SCI 305/505 | Environmental Fate and Transport \# |  |
| ENV SCI 336 | Environmental Statistics |  |
| ENV SCI 338 | Environmental Modeling |  |
| ENV SCI 339 | Scientific Writing |  |
| ENV SCI 467 | Capstone in Environmental Science |  |
| Elective Courses (choose 9 credits): |  |  |
| BIOLOGY 469/669 | Conservation Biology \# |  |
| ENV SCI 301 | Radioactivity: Past, Present, and Future |  |
| ENV SCI 303 | Environmental Sustainability |  |
| ENV SCI 320/520 | The Soil Environment |  |
| ENV SCI/ET 330/ENV SCI 530 | Hydrology \# |  |
| ENV SCI 335/535 | Water and Waste Water Treatment \# |  |
| ENV SCI 337/537 | Environmental GIS \# |  |
| ENV SCI 401/601 | Stream Ecology \# |  |
| ENV SCI 403/603 | Limnology \# |  |
| ENV SCI/ET 415/ENV SCI 615 | Solar and Alternate Energy Systems \# |  |
| ENV SCI 424/624 | Hazardous and Toxic Materials \# |  |
| ENV SCI 425/625 | Global Climate Change \# |  |
| ENV SCI 433/633 | Ground Water: Resources and Regulations* |  |


| ENV SCI 460/660 | Resource Management Strategy ${ }^{\#}$ |
| :--- | :--- |
| ENV SCI 464/664 | Atmospheric Pollution and Abatement ${ }^{\#}$ |
| ENV SCI 491 | Senior Thesis/Research in Environmental Science |
| ENV SCI 492 | Practicum in Environmental Science |
| BIOLOGY 310/510 | Plant Biodiversity |
| BIOLOGY 320/520 | Field Botany |
| BIOLOGY 322/522 | Environmental Microbiology |
| BIOLOGY 357/557 | Marine Biology |
| BIOLOGY 401/601 | Fish and Wildlife Population Dynamics |
| BIOLOGY 449/649 | Wetland Ecology |
| BIOLOGY 450/650 | Ecological Restoration |
| GEOSCI 402/696 | Sedimentology \& Stratigraphy |
| GEOSCI 421/621 | Geoscience Field Trip \# |
| GEOSCI 432/632 | Hydrogeology |
| GEOSCI 470/670 | Glacial Geology \& Landscapes |
| WATER 444/644 | Aqueous Geochemistry |

## Total Credits

\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the Education office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Entrepreneurship

The Entrepreneurship emphasis provides students with the essential knowledge, skills, and mindset required to excel in the dynamic realm of entrepreneurship. Embedded within the broader business administration curriculum, this specialized emphasis cultivates innovation, creativity, and strategic thinking, preparing students for entrepreneurial ventures or leadership positions within established organizations. Through a blend of rigorous academic coursework, hands-on experiential learning opportunities, and guidance from industry experts, students gain a thorough comprehension of the entrepreneurial journey from conceptualization to implementation. Foundational courses in entrepreneurship explore key areas including identifying opportunities, developing business models, conducting feasibility analyses, devising financing strategies, and fostering venture growth. This emphasis establishes a robust framework for aspiring entrepreneurs and individuals aiming to effect significant change in the business landscape.

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 3 |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| Upper-Level Courses |  | 15 |
| Required: |  |  |
| ENTRP 373 | Entrepreneurial Finance |  |
| ENTRP 481 | Small Business Management \& Family Entrepreneurship |  |
| ENTRP 486 | Design Thinking and Developing Business Models |  |
| ENTRP 491 | Advanced Entrepreneurial Marketing |  |
| Elective (Choose one): |  |  |
| ENTRP 488 | Minimum Viable Product and New Product Development |  |
| ENTRP 492 | Social Entrepreneurship |  |

Total Credits

## Faculty

Gaurav Bansal; Professor; Ph.D., University of Wisconsin - Milwaukee*
Bardia Batala; Assistant Professor; Ph.D., Oklahoma State University
Ranga Parthasarathy; Assistant Professor; Ph.D., DePaul University*
Hyeinsik Shin; Assistant Professor; Ph.D., Fox School of Business, Temple University*

Nischal Thapa; Assistant Professor; Ph.D., University of Missouri - Kansas City
Matthew Geimer; Associate Teaching Professor; J.D., University of Wisconsin - Madison
Praneet Tiwari; Assistant Teaching Professor; M.S., University of North Texas
Paul Werner; Assistant Teaching Professor; M.B.A., University of Minnesota

## Finance

## (Bachelor of Business Administration)

The Finance major at UW-Green Bay is designed to provide future financial professionals with practical and theoretical knowledge of various financial components, such as investments, corporate finance, capital markets, banking, risk management, international financial management, and personal financial planning. Graduates from the Finance program will be prepared to work as financial analysts, financial managers, financial advisors, security analysts, portfolio managers, insurance underwriters, stock brokers, mortgage underwriters, bank branch managers, and in other finance-related positions.

The program provides considerable exposure to the liberal arts and develops the critical thinking, problem-solving, interpersonal, communication, quantitative and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues such as global competition, social responsibility and ethics, sustainability, and the relationship between organizations and various environmental forces.

The supporting and core courses provide breadth and introduce each student to the foundations of business knowledge, including communication, economics, statistics, computers, accounting, finance, management, and marketing. Subject-focal upper-level courses prepare Finance students for their professional careers by providing in-depth coverage of major areas in Finance, including Investments, Corporate Finance, Risk Management, Real Estate Finance, Financial Markets and Institutions, International Financial Management, and Personal Financial planning.

By offering three distinct emphasis's Finance students have extensive opportunities to meet business professionals and gain practical experience. Students are able to choose between traditional Corporation Finance, Securities Analysis and Portfolio Management, or Personal Financial Planning. The Corporation Finance emphasizes skills required to build a career as a Financial Analyst, Budget Analyst, or Chief Investment Officer. The Securities Analysis and Portfolio Management Emphasis focuses upon skills required in the Securities and Investment Management Industry. While the Personal Finance Emphasis teaches the needed skills to build a career Advising Individuals on all aspects of Personal Finance. All Finance students will have access to the Willie D. Davis Finance and Investment Lab and the Center for Financial Wellness. The Willie D. Davis Finance and Investment Lab is a state-of-the-art facility that provides students with the opportunity to apply finance and investment knowledge in a real-life setting. Students can also apply to be a part of the Student Managed Investment Fund (SMIF) course, where students actively research investments and build portfolios with real dollars in real-time. Additionally, a vibrant Student Finance Association supports these efforts and helps students to meet others with like interests.
The Center for Financial Wellness fosters alumni and industry partnerships and encourages students career advancement, housing the Personal Financial Planning Association student organization. Students can access peer-to-peer Financial Consulting, where personal financial planning students offer financial coaching on fundamental personal finance areas to their peers at UW-Green Bay, empowering students to achieve their financial goals. Students have the opportunity to broaden their professional networks as organizational members, or to develop their leadership skills through service as student officers. Finance faculty are experts in their field and encourage students to participate in internship programs through which students learn and earn credits while working in real business settings.

## Entrance and Exit Requirements

Students can add a Finance major at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of the SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression for a Finance major. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average. All students must meet this program exit requirements to graduate.

## Major Area of Emphasis (p. 191)

Students must complete requirements in one of the following areas of emphasis: (p. 191)

- Business Finance (p. 191)
- Personal Financial Planning (p. 191)
- Portfolio Management (p. 191)


## Faculty

Rasoul Rezvanian; Professor; Ph.D., Southern Illinois University
Karl Schindl; Professor; M.S., Northern Illinois University, chair
Thomas S Nesslein; Associate Professor; Ph.D., University of Washington - Seattle

Matthew Raunio; Associate Professor; M.B.A., University of Wisconsin - Oshkosh
Mussie M Teclezion; Associate Professor; D.B.A., Southern Illinois University at Carbondale
Zhuoli Axelton; Assistant Professor; Ph.D., Washington State University
Preston Cherry; Assistant Professor; Ph.D., Texas Tech University
Heather Kaminski; Assistant Professor; D.B.A., Anderson University
Eu Jin Kwak; Assistant Professor; Ph.D., University of Georgia*
Grace (Fangjun) Sang; Assistant Professor; Ph.D., Kent State
Kevin Jaklin; Assistant Teaching Professor; M.B.A., University of Wisconsin - Oshkosh

## Finance Major

## Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Business Finance
- Personal Financial Planning
- Portfolio Management


## Business Finance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 30 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| HRM 262 | Introduction to Human Resource Management |  |
| PHILOS 227 | Business Ethics |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Economics (choose one combination): |  |  |
| ECON 202 <br> \& ECON 203 | Macro Economic Analysis and Micro Economic Analysis |  |
| ECON 208 <br> \& ECON 209 | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics (choose one): |  | 3-4 |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundational Courses |  | 15 |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| FIN 370 | Investment Operations and Securities Regulation |  |
| MKTG 322 | Principles of Marketing |  |
| Finance Required Core Courses |  | 12 |


| ECON 330 | Money, Banking and Financial Markets |
| :--- | :--- |
| FIN 442 | Principles of Investment |
| FIN 445 | International Financial Management |
| FIN 446 | Advanced Corporation Finance |


| Required Elective Courses (6 credits): | Real Estate Principles |
| :--- | :--- |
| FIN 344 | Risk Management and Insurance |
| FIN 345 | Introduction to Income Tax Theory and Practice |
| ACCTG 410 | Employee Benefits and Retirement Planning |
| FIN 415 | Estate and Trust Planning |
| FIN 425 | Bank Administration and Management |
| FIN 450 | Security Analysis and Portfolio Management |
| FIN 460 | Financial Plan Development |
| FIN 475 | Student Managed Investment Fund |
| FIN 480 |  |
| Capstone Experience: | Capstone in Business Strategy <br> MGMT 482 <br> Or FIN 480 |

Total Credits

## Personal Financial Planning

| Code | Title | Credits |
| :---: | :---: | :---: |
| Foundation Courses |  | 27 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| FIN 282 | Personal Financial Planning |  |
| HRM 262 | Introduction to Human Resource Management |  |
| PHILOS 227 | Business Ethics |  |
| Economics (choose one option): |  |  |
| $\begin{aligned} & \text { ECON } 202 \\ & \text { \& ECON } 203 \end{aligned}$ | Macro Economic Analysis and Micro Economic Analysis |  |
| $\begin{aligned} & \text { ECON } 208 \\ & \text { \& ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Staistics (Choose One) |  | 3-4 |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Foundation Courses |  | 15 |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| BUSAN 370 | Data Science for Managers |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| Finance Required Core Courses |  | 15 |
| FIN 345 | Risk Management and Insurance |  |
| FIN 442 | Principles of Investment |  |
| FIN 350 | Psychology of Personal Finance |  |
| FIN 415 | Employee Benefits and Retirement Planning |  |
| FIN 425 | Estate and Trust Planning |  |
| Required Elective Courses (6 Credits) |  | 6 |
| FIN 497 | Internship |  |
| FIN 480 | Student Managed Investment Fund |  |


| ACCTG 413 | Income Tax Practicum (VITA) |  |
| :---: | :---: | :---: |
| ECON 302 | Intermediate Macro Economic Theory |  |
| FIN 460 | Security Analysis and Portfolio Management |  |
| FIN 450 | Bank Administration and Management |  |
| ECON 330 | Money, Banking and Financial Markets |  |
| FIN 370 | Investment Operations and Securities Regulation |  |
| Capstone Experience: |  | 3 |
| FIN 475 | Financial Plan Development |  |
| Total Credits |  | 69-70 |
| Portfolio Management |  |  |
| Code | Title | Credits |
| Foundational Courses |  | 30 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| HRM 262 | Introduction to Human Resource Management |  |
| PHILOS 227 | Business Ethics |  |
| SCM 200 | Principles of Supply Chain Management |  |

Economics (choose one combination):
ECON 202 Macro Economic Analysis
\& ECON 203 and Micro Economic Analysis
ECON 208 Economics WTCS Bridge
\& ECON 209 and WTCS Transfer Credit
Statistics (choose one): 3
BUSAN 220 Introduction to Business Statistics
or ECON 210 Quantitative Methods for Economics and Business

| Upper-Level Foundational Courses |  |
| :--- | :--- |
| BUS ADM 305 | Legal Environment of Business |
| FIN 343 | Corporation Finance |
| MGMT 389 | Organizational Behavior |
| FIN 370 | Investment Operations and Securities Regulation |
| MKTG 322 | Principles of Marketing |


| Finance Required Core Courses |  |
| :--- | :--- |
| ECON 330 | Money, Banking and Financial Markets |
| ECON 302 | Intermediate Macro Economic Theory |
| FIN 442 | Principles of Investment |
| FIN 460 | Security Analysis and Portfolio Management |
| FIN 445 | International Financial Management |

Required Elective Courses ( 6 credits): 6

| FIN 344 | Real Estate Principles |
| :--- | :--- |
| FIN 345 | Risk Management and Insurance |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |
| FIN 415 | Employee Benefits and Retirement Planning |
| FIN 425 | Estate and Trust Planning |
| FIN 475 | Financial Plan Development |
| FIN 480 | Student Managed Investment Fund |

Capstone Experience:

MGMT 482
Capstone in Business Strategy

## First Nations Studies

## (Bachelor of Arts)

First Nations Studies reflects the holistic worldview of the indigenous people of Turtle Island (North America). First Nations Studies is committed to the study of First Nations culture, philosophy, history, language, and the social, economic, and political status of indigenous people and their communities. The program is designed to preserve and promote the identity and sovereign status of indigenous people through the study and practice of decolonization. The program places particular emphasis on the nations in our region, the Western Great Lakes.

First Nations Studies incorporates the teaching and learning approaches of tribal people, offering students a new way to learn within the academy. The program places emphasis on the oral tradition of First Nations people as preserved and shared by tribal Elders. Students take part in oral traditional learning experiences within the university classroom and, also, in tribal communities learning from tribal people. First Nations Studies teaching and learning is centered on the four areas of learning in the tribal world - history, culture, sovereignty, laws and policies, and indigenous philosophy.

The program is of interest to both American Indian and non-Indian students who wish to learn more about the traditional cultures and knowledge of indigenous people as well as the changes experienced by First Nations as a result of Euro-American contact.

The program offers a major and a minor. The minor strengthens numerous degrees including those in Business, History, Education, Social Work, Psychology, and the natural and social sciences. The degrees prepare students to live and work in an increasingly diverse community and also equip students with skills to work collaboratively and effectively with tribal governments and businesses.

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 12 |
| Required Core Courses |  |  |
| FNS 211 | Mentoring First Nations Youth ${ }^{1}$ |  |
| FNS 224 | First Nations and The Sacred |  |
| FNS 225 | Introduction to First Nations Studies |  |
| Choose one: |  |  |
| FNS 210 | American Indians In Film |  |
| FNS 295 | Special Topics in First Nations Studies |  |
| Upper-Level Courses |  | 27 |
| FNS 391 | First Nations Studies Capstone Seminar |  |
| First Nations Policy: |  |  |
| FNS 392 | First Nations Justice and Tribal Governments |  |
| or FNS 393 | First Nations and Education Policy |  |
| Oral Emphasis (complete one of the following 12 credit options): |  |  |
| Option 1 Oneida Language Project ${ }^{3}$ |  |  |
| FNS 301 | Oneida Language I |  |
| FNS 302 | Oneida Language II |  |
| FNS 303 | Oneida Language III |  |
| FNS 304 | Oneida Language IV |  |
| Option 2: |  |  |
| FNS 301 | Oneida Language ${ }^{3}$ |  |
| FNS 399 | First Nations Studies Oral Tradition Concentration (must complete 9 credits) |  |
| Elective Courses (choose 9 credits): ${ }^{2}$ |  |  |
| ART 381 | Art of the First Nations |  |
| FNS 302 | Oneida Language II |  |
| FNS 303 | Oneida Language III |  |
| FNS 304 | Oneida Language IV |  |
| FNS 360 | Women and Gender in First Nations Communities |  |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions |  |
| FNS 374 | Wisconsin First Nations History |  |


| FNS 385 | First Nations Intellectual Traditions |
| :--- | :--- |
| FNS 392 | First Nations Justice and Tribal Governments |
| FNS 393 | First Nations and Education Policy |
| FNS 395 | Special Topics in First Nations Studies |
| FNS 399 | First Nations Studies Oral Tradition Concentration |
| FNS 497 | Internship |
| FNS 498 | Independent Study |
| FNS 299/499 | Travel Course |
| HUM STUD 350 | Interdisciplinary Study of Great Works (Indigenous Intellectuals topic only) |

## Total Credits

1 OR equivalent 3 credit learning experience
2 Courses do not double count with Oral Emphasis options above.
3 Or Indigenous Language other than Oneida

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| FNS 211 | Mentoring First Nations Youth ${ }^{1}$ |  |
| FNS 225 | Introduction to First Nations Studies |  |
| Choose one course: |  |  |
| FNS 210 | American Indians In Film |  |
| FNS 224 | First Nations and The Sacred |  |
| FNS 295 | Special Topics in First Nations Studies |  |
| Upper-Level Courses |  | 15 |
| FNS 391 | First Nations Studies Capstone Seminar |  |
| Policy Requirement (choose one course): |  |  |
| FNS 392 | First Nations Justice and Tribal Governments |  |
| or FNS 393 | First Nations and Education Policy |  |
| Elective Courses (choose 9 credits): ${ }^{2}$ |  |  |
| FNS 301 | Oneida Language I |  |
| FNS 302 | Oneida Language II |  |
| FNS 303 | Oneida Language III |  |
| FNS 304 | Oneida Language IV |  |
| FNS 305 | Oneida Language V |  |
| FNS 306 | Oneida Language VI |  |
| FNS 360 | Women and Gender in First Nations Communities |  |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions |  |
| FNS 374 | Wisconsin First Nations History |  |
| FNS 385 | First Nations Intellectual Traditions |  |
| FNS 395 | Special Topics in First Nations Studies |  |
| FNS 393 | First Nations and Education Policy |  |
| FNS 399 | First Nations Studies Oral Tradition Concentration |  |
| FNS 495 | Teaching Assistantship |  |
| FNS 497 | Internship |  |
| FNS 498 | Independent Study ${ }^{3}$ |  |

Total Credits
1 OR equivalent 3 credit learning experience
2 Courses do not double count with Policy Requirement courses above.
3 Requires approval of First Nations Studies adviser.

## Curriculum Guide

The following is a curriculum guide for a four-year First Nations Studies degree program and is subject to change without notice. Students should consult a First Nations Studies program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for First Nations Studies
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| FNS 211 | Mentoring First Nations Youth (or in Freshman year Spring) | 3 |
| FNS 225 | Introduction to First Nations Studies | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| FNS 211 | Mentoring First Nations Youth | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| FNS 224 | First Nations and The Sacred | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| FNS 301 | Oneida Language I | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| FNS 393 | First Nations and Education Policy | 3 |
| FNS Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| FNS 392 | First Nations Justice and Tribal Governments (or FNS Upper Level Elective) | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| FNS 391 | First Nations Studies Capstone Seminar | 3 |
| FNS Upper Level Elective |  | 3 |
| FNS Upper Level Elective |  | 3 |
| FNS Upper Level Elective |  | 3 |


| Elective |  | 3 |
| :--- | :--- | ---: |
| Spring | Credits | $\mathbf{1 5}$ |
| FNS 399 |  |  |
| Elective | First Nations Studies Oral Tradition Concentration | 12 |
|  |  | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Faculty

John P Leary; Associate Professor; Ph.D., University of Wisconsin - Madison*
Lisa M Poupart; Associate Professor; Ph.D., Arizona State University, chair*
Lois Stevens; Assistant Professor; Ph.D., University of Kansas*

## French and Francophone Studies

The French and Francophone Studies program is designed to help students develop practical language skills while they learn about the literature, culture and people of France and the French-speaking world. Knowing French opens the door to all the other cultures of the world where French is widely spoken - in Africa, the Middle East, Europe, Indochina.

French is the only language other than English spoken on five continents. Like English, French is truly a global language. French is the first or second language in over 40 countries, France is the world's sixth largest economy, and is the official working language of the United Nations, UNESCO, NATO, the International Olympic Committee and many more similarly important world organizations. According to the most recent U.S. Census, 1.9 million Americans speak French in the home.

In recent years, the U.S. was the second largest direct investor in France, and in 2002, France was the second largest foreign investor in the U.S. French is the foreign language spoken by our largest trading partner (Canada). In 2000, the United States exported more to countries having French as a national language than to countries having any other foreign language. Exports to Canada alone in that year were greater than the combined exports to all countries south of the United States. Among foreign countries doing business in the U.S., France employs the third largest number of Americans.

The world invests in France: In 2003, France was the second largest destination of foreign investment in the world. France is a leader in science and technology (nuclear physics, AIDS research, automobiles, electronics, aerospace, transportation, telecommunications and more). More tourists visit France than any other country in the world.

The broad training that is part of a program in French and Francophone Studies (including written and oral communication skills, reading and analyzing texts, history, geography and social studies) is an excellent means to personal growth and intellectual enrichment. It is also a fine preparation for entrance into the professional world. French and Francophone Studies majors have developed successful careers in many areas of business, the service professions (such as law or teaching), and government.

Along with the regularly scheduled array of courses, the French and Francophone Studies program also offers students the opportunity to earn degree credits while studying abroad. UW-Green Bay sponsors a semester program in Bordeaux and, with faculty approval, accepts credits from numerous other study-abroad programs. On campus, students can have frequent contact with authentic cultural materials both inside and outside the classroom via the internet, the latest multimedia equipment, and international television and radio reception.

Students who begin their French and Francophone Studies at UW-Green Bay should enroll in FRENCH 101. The normal sequence of language courses is:

| Code | Title | Credits |
| :--- | :--- | ---: |
| FRENCH 101 | Introduction to the French Language I | 4 |
| FRENCH 102 | Introduction to the French Language II | 4 |
| FRENCH 201 | Intermediate French Language I | 3 |
| FRENCH 202 | Intermediate French Language II | 3 |
| FRENCH 320 | Intermediate Composition and Conversation | 3 |
| FRENCH 325 | Advanced French Conversation and Composition | 3 |

Those who have studied French in high school should select a course appropriate to their level by counting a year of high school work as equivalent to one semester of college work, or they should consult a French adviser. Students seeking teacher certification must be admitted to the Education Program and should contact the Education Office for information and further requirements.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Retroactive Credit

Degree seeking students who have taken a second language in high school or who have acquired knowledge of a second language elsewhere may earn up to 14 additional credits for their previous language study by completing a foreign language course beyond 101 level. With a grade of " B " or better, credit will be given in that language for all of the courses in that language preceding the one in which the student has enrolled, to a maximum of 14 credits; with a grade of " $B C$ " or " $C$," half-credit will be given for the courses preceding the one in which the student has enrolled, to a maximum of seven credits.

For example, with four years of high school French, students who complete FRENCH 320, with a grade of "B" will receive 14 retroactive credits for FRENCH 101, FRENCH 102, FRENCH 201, and FRENCH 202 in addition to the three credits for FRENCH 320; students who complete the course with a "C" will receive seven retroactive credits for FRENCH 101 ( 2 of the total 4 credits), FRENCH 102 ( 2 of the total 4 credits), FRENCH 201 ( 1.5 of the total 3 credits), and FRENCH 202 ( 1.5 of the total 3 credits).

Requests for retroactive credits in a student's native language are not generally accepted.
To determine eligibility for retroactive credit, students must consult with the appropriate language program chair or course instructor who will advise them regarding which foreign language course they should take. If a student meets the criteria above, the course instructor must complete the Retroactive Credit Form and submit it to the Registrar's Office. The appropriate courses and corresponding credits will then be recorded on the student's transcript.

Retroactive credit will not be awarded based on a student's performance on any sort of test. This includes, but is not limited to, AP, CLEP, or Challenge exams. Retroactive foreign language credits may only be earned by satisfactorily passing a course at UW-Green Bay or through an approved College Credit in the High School program as described above.

Retroactive credits earned at any UW System institution or from St. Norbert College courses will be honored and granted to transfer students. Retroactive foreign language credits awarded by other institutions will not be granted to students who transfer to UW-Green Bay. Students may request an exception to this policy by submitting a written appeal to the language coordinator of the department they wish to receive credit from.

If you're repeating a course, contact the French and Francophone Studies program chair for further information on retroactive credits.

## Minor

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| FRENCH 201 | Intermediate French Language I |
| FRENCH 202 | Intermediate French Language II |
| Upper-Level Courses |  |
| FRENCH 320 | Intermediate Composition and Conversation |
| FRENCH 325 | Advanced French Conversation and Composition ${ }^{1}$ |
| Elective Courses (choose 6 credits): |  |
| FRENCH 329 | Representative French Authors ${ }^{1}$ |
| FRENCH 345 | Advanced French Grammar and Translation |
| FRENCH 355 | Le Monde Francophone |
| FRENCH 367 | Business French |
| FRENCH 498 | Independent Study (in advanced language, literature, or cultural studies; with adviser's consent) |
| FRENCH 499 | Travel Course |

Total Credits

1 Some upper-level courses are repeatable for credit when course topic varies. See adviser.

## Faculty

David N Coury; Professor; Ph.D., University of Cincinnati
Cristina M Ortiz; Professor; Ph.D., University of Cincinnati, chair

## Geography

Geography is an academic discipline that systematically studies the location, variation and interrelations of natural and cultural features of the earth. Its study exemplifies the University's mission to emphasize interdisciplinary, problem-focused education because Geography examines the world and its problems with a view to comprehensive understanding and critical thinking.

Geography students gain a broad education encompassing the sciences and the liberal arts.
Geography offers technical training for students who wish to work as professional geographers in government or industry, and provides background for advanced work in business, economics, history, planning, political science, the humanities, or in the biological and earth sciences, depending upon a student's individual needs. Students who want preparation to teach should seek advice early from advisers in Geography and Education to make sure they complete all requirements.

Depending on their career goals, students might effectively combine Geography with programs in Business Administration, Environmental Policy and Planning, Urban Studies, Human Development, Democracy and Justice Studies, or Humanistic Studies.

Students in Geography can expect to become acquainted with current technology in the field through courses introducing them to the concepts and uses of geographic information systems (GIS). In addition, students develop spatial analytical skills that are applied to problem solving projects. In this light, students are encouraged to gain practical experience through internships with local agencies and organizations in the region and through practical course projects.

Students are also encouraged to take advantage of the opportunities offered in the two travel courses offered under Urban and Regional Studies that will satisfy the Geography minor. Students apply what they learn in the classroom to the international experience. Geography minors study urban and regional issues in Ecuador, South America and the Galapagos Islands. Students seeking information on teacher certification should contact the Education Office.

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 12 |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis |  |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |  |
| Choose one of the following courses: |  |  |
| EPP 102 | Environment and Society |  |
| GEOG 209 | Landscapes of North America |  |
| GEOG 210 | Human Geography and Concepts |  |
| GEOSCI 102 | Natural Hazards |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| Upper-Level Courses ${ }^{1}$ |  | 12 |
| Courses selected must come from at least two of the following areas: |  |  |
| Physical Geography |  |  |
| ENV SCI 425 | Global Climate Change |  |
| GEOG 321 | Coastal Resources Policy and Management |  |
| GEOSCI 325 | Regional Climatology |  |
| Human Geography |  |  |
| EPP 324 | Transitioning to Sustainable Communities |  |
| GEOG 341 | Urban Geography |  |
| Regional Geography |  |  |
| GEOG 370 | Geography of South America |  |
| GEOG 499 | Travel Course |  |
| Geographic Techniques |  |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| GEOG 450 | Advanced Geographic Information Systems |  |

## Total Credits

1 Internships and independent study opportunities are available with faculty approval.

## Faculty

Marcelo P Cruz; Professor; Ph.D., University of California - Los Angeles, chair
Melvin Johnson; Associate Professor; Ph.D., University of Nebraska - Lincoln
Laurel E Phoenix; Associate Professor; Ph.D., State University of New York - College of Environmental Science and Forestry*
Christopher Houghton; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Geoscience

## (Bachelor of Science)

Geoscience is the study of Earth materials (e.g., rocks, minerals, soil, water, and air), the processes that shape and alter those components, and the interplay between the biosphere and the Earth. The program strongly emphasizes the fundamentals of geoscience, but also places special emphasis on groundwater management, soils, and other earth system processes.

The Geoscience program takes an application-focused, interdisciplinary approach, known as earth system science, in which the physical environment is investigated as many interacting systems. Earth system science emphasizes the interactions between the different systems that make up the Earth. Although earth system science is considered a new approach at many institutions, it has been an integral part of the Geoscience program since the very founding of UW-Green Bay. Interested students should also check Environmental Science course listings for several courses on soils, field geology, and ground water.

Geoscientists can find career opportunities in state and federal government agencies, consulting firms, and private industry. Demand for geoscientists will continue into the future, as demand for resources and energy grow with increasing population. Furthermore, responsible mining practices, remediation of contaminated sites, and forecasting the evolution of Earth conditions requires well-trained geoscientists with a broad understanding of how the Earth works.

Students interested in planning, natural resource or land management, or environmental policy issues typically select interdisciplinary minors in Environmental Science, Public and Environmental Affairs, or Urban and Regional Studies. For those interested in an earth system science perspective in business, Geoscience may also be combined with Business Administration. Many states and localities now require geoscience in their curricula, and high schools offering geoscience courses, in addition to the traditional science courses, is becoming the norm. Geoscience education includes geology, astronomy, oceanography, and weather and climate - with the goal of fostering a better understanding of our home, and encouraging responsible stewardship of our planet. Those seeking teacher certification can pursue several options:

- They can pursue a broad-field science certification in Education and take Geoscience courses to match their interests and employment goals.
- Students interested in elementary and middle school teaching can take an Education major and Geoscience minor.
- Students interested in teaching at the secondary level can take a Geoscience major and Education minor.

All Education students should consult with advisers in Geoscience and Education early in their studies to make sure that their academic program meets all state requirements for certification. Careful planning is essential since the Education course requirements are substantial and state requirements change periodically. Students seeking teacher certification in Geoscience should seriously consider satisfying the certification requirements in another discipline as well, because certification in additional fields will increase their employment opportunities.

## Major Area of Emphasis (p. 202)

Students must complete requirements in one of the following areas of emphasis: (p. 202)

- Geoscience (p. 202)
- Geoscience (Accelerated) - Integrated with graduate Environmental Science \& Policy program (p. 202)


## Minor

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| GEOSCI 202 | Physical Geology |
| GEOSCI 203 | Earth System History |
| At least 5 credits of Chemistry at the $\mathbf{1 0 0 - 2 0 0}$ level |  |
| Mathematics (Choose two of the following courses): |  |
| MATH 104 | Precalculus |
| MATH 202 | Calculus and Analytic Geometry I |
| MATH 203 | Calculus and Analytic Geometry II |


| MATH 260 | Introductory Statistics |
| :--- | :--- |
| Upper-Level Courses |  |
| GEOSCI 340 | Introduction to Mineralogy \& Petrology |
| Choose at least 8 additional credits from the following list: |  |
| ENV SCI 320 | The Soil Environment |
| ENV SCI 330 | Hydrology |
| ENV SCI 337 | Environmental GIS |
| ENV SCI 425 | Global Climate Change |
| ENV SCI 433 | Ground Water: Resources and Regulations |
| GEOSCI 301 | Introduction to Geoscience Field Methods |
| GEOSCI 350 | Structural Geology and Tectonics |
| GEOSCI 402 | Sedimentology \& Stratigraphy |
| GEOSCI 421 | Geoscience Field Trip |
| GEOSCI 432 | Hydrogeology |
| GEOSCI 450 | Ore Deposits |
| GEOSCI 470 | Glacial Geology \& Landscapes |
| GEOSCI 491 | Senior Thesis/Research in Geoscience |
| GEOSCI 492 | Special Topics in Geoscience |
| GEOSCI 498 | Independent Study |
| GEOSCI 499 | Travel Course |
| WATER 321 | Stable Isotopes in the Environment |
| WATER 444 | Aqueous Geochemistry |

Total Credits

## Curriculum Guide

## An example: Four year plan for Geoscience Major

120 credits necessary to graduate. Participation in field courses, the Geology Club, internships, and/or independent studies are highly recommended. Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| GEOSCI 202 | Physical Geology | 4 |
| MATH 104 or MATH 202 | Precalculus or Calculus and Analytic Geometry I | 4 |
| WF 100 | First Year Writing | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Spring |  |  |
| GEOSCI 203 | Earth System History | 3 |
| GEOSCI 204 | Earth System History Laboratory | 1 |
| GEOSCI 421 | Geoscience Field Trip | 1-3 |
| $\begin{aligned} & \text { MATH } 202 \\ & \quad \text { or MATH } 260 \end{aligned}$ | Calculus and Analytic Geometry I or Introductory Statistics | 4 |
| $\begin{aligned} & \text { WF } 105 \\ & \text { or COMM } 133 \end{aligned}$ | Research and Rhetoric or Fundamentals of Public Address | 3 |
| General Ed |  | 3 |
|  | Credits | 15-17 |

Sophomore
Fall
CHEM $211 \quad$ Principles of Chemistry I 4
CHEM $213 \quad$ Principles of Chemistry I Laboratory 1
ENV SCI $330 \quad$ Hydrology 3
MATH $202 \quad$ Calculus and Analytic Geometry $1 \quad 4$
or MATH 260 or Introductory Statistics
General Ed
Credits


## Faculty

John A Luczaj; Professor; Ph.D., Johns Hopkins University*
Shawn Malone; Assistant Professor; Ph.D., University of lowa

## Geoscience Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Geoscience
- Geoscience (Accelerated) - Integrated with graduate Environmental Science \& Policy program


## General Geoscience

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Principles of Chemistry I |  |
| CHEM 211 | Principles of Chemistry II |  |
| CHEM 212 | Principles of Chemistry I Laboratory |  |
| CHEM 213 |  |  |


| CHEM 214 | Principles of Chemistry II Laboratory |  |
| :---: | :---: | :---: |
| GEOSCI 202 | Physical Geology |  |
| GEOSCI 203 | Earth System History |  |
| GEOSCI 204 | Earth System History Laboratory |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 260 | Introductory Statistics |  |
| Physics (Choose one of the following combinations): ${ }^{1}$ |  |  |
| PHYSICS 103 \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Upper-Level Courses |  | 26 |
| ENV SCI 320 | The Soil Environment |  |
| GEOSCI 340 | Introduction to Mineralogy \& Petrology |  |
| GEOSCI 432 | Hydrogeology |  |
| Choose one: |  |  |
| ENV SCI 330 | Hydrology |  |
| GEOSCI 402 | Sedimentology \& Stratigraphy |  |
| Electives |  |  |
| Choose 12 credits from the following courses: |  |  |
| ENV SCI 330 | Hydrology |  |
| ENV SCI 337 | Environmental GIS |  |
| ENV SCI 425 | Global Climate Change |  |
| GEOSCI 301 | Introduction to Geoscience Field Methods |  |
| GEOSCI 350 | Structural Geology and Tectonics |  |
| GEOSCI 402 | Sedimentology \& Stratigraphy |  |
| GEOSCI 421 | Geoscience Field Trip ${ }^{2}$ |  |
| GEOSCI 450 | Ore Deposits |  |
| GEOSCI 470 | Glacial Geology \& Landscapes |  |
| GEOSCI 491 | Senior Thesis/Research in Geoscience |  |
| GEOSCI 492 | Special Topics in Geoscience ${ }^{2}$ |  |
| GEOSCI 498 | Independent Study |  |
| GEOSCI 499 | Travel Course |  |
| WATER 321 | Stable Isotopes in the Environment |  |
| WATER 444 | Aqueous Geochemistry |  |

## Total Credits

1 Students who plan to attend graduate school are advised to take Physics 201/203 (calculus-based physics)
2 Course topics vary. Offerings of different topics can be repeated for credit.

## Geoscience Accelerated Emphasis - Integrated with graduate Environmental Science \& Policy program

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Principles of Chemistry I |  |
| CHEM 211 | Principles of Chemistry II |  |
| CHEM 212 | Principles of Chemistry I Laboratory |  |
| CHEM 213 | Principles of Chemistry II Laboratory |  |
| CHEM 214 | Physical Geology |  |
| GEOSCI 202 | Earth System History |  |
| GEOSCI 203 | Earth System History Laboratory |  |
| GEOSCI 204 | Calculus and Analytic Geometry I |  |
| MATH 202 |  |  |


| MATH 260 | Introductory Statistics |  |
| :---: | :---: | :---: |
| Physics (Choose one of the following combinations): ${ }^{1}$ |  |  |
| PHYSICS 103 <br> \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 <br> \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Upper-Level Courses |  | 26 |
| ENV SCI 320/520 | The Soil Environment \# |  |
| GEOSCI 340 | Introduction to Mineralogy \& Petrology |  |
| GEOSCI 432/632 | Hydrogeology \# |  |
| Choose one: |  |  |
| ENV SCI 330 | Hydrology |  |
| GEOSCI 402/602 | Sedimentology \& Stratigraphy \# |  |
| Electives |  |  |
| Choose 12 credits from the following courses: |  |  |
| ENV SCI 330 | Hydrology |  |
| ENV SCI 337 | Environmental GIS |  |
| ENV SCI 425/625 | Global Climate Change \# |  |
| GEOSCI 301 | Introduction to Geoscience Field Methods |  |
| GEOSCI 350 | Structural Geology and Tectonics |  |
| GEOSCI 402 | Sedimentology \& Stratigraphy |  |
| GEOSCI 421/621 | Geoscience Field Trip (Offerings of trip to different areas may be repeated for credit) \# |  |
| GEOSCI 450 | Ore Deposits |  |
| GEOSCI 470/670 | Glacial Geology \& Landscapes \# |  |
| GEOSCI 491 | Senior Thesis/Research in Geoscience |  |
| GEOSCI 492 | Special Topics in Geoscience ${ }^{2}$ |  |
| GEOSCI 498 | Independent Study |  |
| GEOSCI 499 | Travel Course |  |
| WATER 321 | Stable Isotopes in the Environment |  |
| WATER 444/644 | Aqueous Geochemistry \# |  |

Total Credits
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Environmental Science \& Policy office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).
1 Students who plan to attend graduate school are advised to take Physics 201/203 (calculus-based physics)
2 Course topics vary. Offerings of different topics can be repeated for credit.

## German

(Bachelor of Arts)
The German program provides students with the opportunity to develop communication skills in both written and spoken German along with an understanding of and appreciation for German literature and culture. Students developing linguistic and cultural proficiencies are challenged by a curriculum which includes a variety of courses in beginning, intermediate and advanced language, literature, cinema, culture, business and translation studies, as well as travel courses, independent study courses, and internship experiences.

Although many students choose to study German primarily for personal growth and intellectual enrichment, the program is designed to prepare students to enter a variety of careers in, for example, teaching, business, industry and government, and to provide a basis for further study at the graduate level. German language and culture studies are of great professional value in such fields as international business, communications, translating and interpreting, personnel work, public relations, management, education, music, art, philosophy, law, history, anthropology, theology, social work, politics and the travel industry. Furthermore, proficiency in a modern language and understanding of other cultures are essential for peace and prosperity in a mutually interdependent world.

All students in the German program are strongly encouraged to spend as much time as possible in German-speaking cultures; to study a semester or a year at UW-Green Bay's German exchange university, Kassel Universität or at another university in Hessen; and/or to participate in the winter or
summer travel course in Germany. Students have the opportunity to interact with German exchange students, attend film series and weekly German conversation tables, and to participate in a variety of German Club events and trips. The UW-Green Bay Language Resource Center has interactive audio-visual equipment and computers to support students' language acquisition and cultural awareness.

German students interested in the humanities may choose to minor in Humanities; students interested in teaching may choose an Education minor; those interested in business often choose Business Administration or International Business; and those interested in communication fields or creative fields may choose a minor in Design Arts or Arts Management. Depending on their personal preferences and career goals, students may combine other programs, such as Human Development or Democracy and Justice Studies.

Students who are beginning their study of German should enroll in Introduction to GERMAN 101. Students with previous German study should select a course appropriate to their level - GERMAN 102, GERMAN 201, GERMAN 202 or GERMAN 320 - by counting a year of high school work as equivalent to a semester of college work, or they should consult the German adviser.

Students seeking teacher certification must be admitted to the Education Program and should contact the Education Office for information and further requirements.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Retroactive Credit

Degree seeking students who have taken a second language in high school or who have acquired knowledge of a second language elsewhere may earn up to 14 additional credits for their previous language study by completing a foreign language course beyond the 101 level. With a grade of " B " or better, credit will be given in that language for all of the courses in that language preceding the one in which the student has enrolled, to a maximum of 14 credits; with a grade of "BC" or " C ," half-credit will be given for the courses preceding the one in which the student has enrolled, to a maximum of seven credits.

For example, with four years of high school German, students who complete GERMAN 320, with a grade of "B" will receive 14 retroactive credits for GERMAN 101, GERMAN 102, GERMAN 201, and GERMAN 202 in addition to the three credits for GERMAN 320; students who complete the course with a "C" will receive seven retroactive credits for GERMAN 101 (2 of the total 4 credits), GERMAN 102 (2 of the total 4 credits), GERMAN 201 ( 1.5 of the total 3 credits), and GERMAN 202 ( 1.5 of the total 3 credits).

Requests for retroactive credit in a student's native language are not generally accepted.
To determine eligibility for retroactive credit, students must consult with the appropriate language program chair or course instructor who will advise them regarding which foreign language course they should take. If a student meets the criteria above, the course instructor must complete the Retroactive Credit Form and submit it to the Registrar's Office. The appropriate courses and corresponding credits will then be recorded on the student's transcript.

Retroactive credit will not be awarded based on a student's performance on any sort of test. This includes, but is not limited to, AP, CLEP, or Challenge exams. Retroactive foreign language credits may only be earned by satisfactorily passing a course at UW-Green Bay or through an approved CCHS program as described above.

Retroactive credits earned at any UW System institution or from St. Norbert College courses will be honored and granted to transfer students. Retroactive foreign language credits awarded by other institutions will not be granted to students who transfer to UW-Green Bay. Students may request an exception to this policy by submitting a written appeal to the language coordinator of the department they wish to receive credit from.

If you're repeating a course, contact the German program chair for further information on retroactive credits.

## Major Area of Emphasis (p. 207)

Students must complete requirements in one of the following areas of emphasis: (p. 207)

- German (p. 207)
- German for Students Seeking Teaching Certification (p. 207)


## Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | 6 |
| GERMAN 201 | Intermediate German Language I |  |
| GERMAN 202 | Intermediate German Language II |  |
| Upper-Level Courses |  | 15 |
| GERMAN 320 Intermediate German Conversation and Composition |  |  |


| GERMAN 325 | Advanced German Conversation and Composition |
| :--- | :--- |
| GERMAN 329 | Representative German Authors ${ }^{1}$ |
| Elective courses (choose $\mathbf{6}$ credits): ${ }^{2}$ |  |
| GERMAN 333 | Literary Themes |
| GERMAN 335 | Literary Eras |
| GERMAN 345 | Advanced German Grammar |
| GERMAN 350 | Major German Drama |
| GERMAN 351 | Major German Prose Fiction |
| GERMAN 355 | Deutsche Kultur und Landeskunde |
| GERMAN 357 | German Cinema |
| GERMAN 358 | German Politics and Society |
| GERMAN 420 | Business German |
| GERMAN 425 | German Translation Studies |
| GERMAN 499 | Travel Course |
| HUM STUD 356 | German Culture |

## Total Credits

1 Some upper-level courses are repeatable for credit when course topic varies. See adviser.
2 It is recommended that only one of the two courses, HUM STUD 356 or GERMAN 357 , be used to fulfill requirements for the minor.

## Curriculum Guide

The following is a curriculum guide for a four-year German degree program and is subject to change without notice. Students should consult a German program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for German Major; Minor in Humanities
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| GERMAN 201 | Intermediate German Language I | 3 |
| HISTORY 101 or HISTORY 103 or HUM STUD 100 | Foundations of Western Culture I or World Civilizations I or Living the Humanities | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| GERMAN 202 | Intermediate German Language II | 3 |
| HISTORY 102 or HISTORY 104 | Foundations of Western Culture II or World Civilizations II | 3 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| GERMAN 320 | Intermediate German Conversation and Composition | 3 |
| HUM STUD 213 | Ethnic Diversity and Human Values | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| GERMAN 325 | Advanced German Conversation and Composition | 3 |
| Humanistic Studies Perspectives Course |  | 3 |


| Elective |  | 3 |
| :---: | :---: | :---: |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| GERMAN 329 | Representative German Authors | 3 |
| German Upper Level Elective |  | 3 |
| Humanistic Studes Perspectives Course |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| German Upper Level Elective |  | 3 |
| German Upper Level Elective |  | 3 |
| Humanistic Studies Perspectives Course |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| German Upper Level Elective |  | 3 |
| German Upper Level Elective |  | 3 |
| Humanistic Studies or FNS Upper Level Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| German Upper Level Elective |  | 3 |
| German Upper Level Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 120 |

## Faculty

David N Coury; Professor; Ph.D., University of Cincinnati, chair
Jennifer Ham; Professor; Ph.D., Rutgers University

## German Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- German
- German for Students Seeking Teaching Certification


## German

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | 6 |
| GERMAN 201 | Intermediate German Language I |  |
| GERMAN 202 | Intermediate German Language II | $\mathbf{2 4}$ |
| Upper-Level Courses |  |  |
| GERMAN 320 | Intermediate German Conversation and Composition |  |
| GERMAN 325 | Advanced German Conversation and Composition |  |
| GERMAN 329 | Representative German Authors ${ }^{1}$ |  |

## Choose 15 credits from the following courses: ${ }^{2}$

| GERMAN 333 | Literary Themes |
| :--- | :--- |
| GERMAN 335 | Literary Eras |
| GERMAN 350 | Major German Drama |
| GERMAN 351 | Major German Prose Fiction |
| GERMAN 345 | Advanced German Grammar |
| GERMAN 355 | Deutsche Kultur und Landeskunde |
| GERMAN 357 | German Cinema ${ }^{3}$ |
| GERMAN 358 | German Politics and Society ${ }^{3}$ |
| GERMAN 420 | Business German |
| GERMAN 425 | German Translation Studies |
| GERMAN 498 | Independent Study |
| GERMAN 499 | Travel Course |
| HUM STUD 356 | German Culture |

Total Credits
1 Some upper-level courses may be repeated for credit when course content varies. See adviser.
2 Students interested in studying abroad for one or more semesters should register for the placeholder course GERMAN 485.
3 Only 6 credits of courses taught in English may be counted toward the major.

## German for Students Seeking Teaching Certification

## This emphasis also requires:

- Admission to the Education Program.
- Completion of the Education minor
- An oral proficiency exam successfully completed before student can be approved for student teaching.
- Student is required to spend an appropriate period of time in a country where German is spoken or participate in an approved immersion program.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| GERMAN 201 | Intermediate German Language I |  |
| GERMAN 202 | Intermediate German Language II |  |
| Upper-Level Courses |  | 27 |
| EDUC 311 | Teaching World Languages |  |
| GERMAN 320 | Intermediate German Conversation and Composition |  |
| GERMAN 325 | Advanced German Conversation and Composition |  |
| GERMAN 329 | Representative German Authors ${ }^{1}$ |  |
| GERMAN 345 | Advanced German Grammar |  |
| GERMAN 485 | Study Abroad: Germany |  |
| or GERMAN 499 | Travel Course |  |
| Elective Courses (choose 9 credits): |  |  |
| Select from any 300-400 German upper level courses |  |  |
| Total Credits |  | 33 |

1 Some upper-level courses may be repeated for credit when course content varies. See adviser.

## Global Studies

The minor in Global Studies encourages students to become aware of how contemporary political, economic, social, and environmental problems affect vast regions and diverse communities. The curriculum links global awareness to local concerns, emphasizes the responsibilities of democratic citizenship, and engages the challenges of human rights and justice, values and ethics, resource flows, cultural resistances, and environmental crises. The requirements of 24 credits complement general education at the introductory level, promote sharp thematic study in the upper-level core, and encourage practical experiences outside the classroom.

Key questions are: What is globalization? What accounts for the phenomena of globalization? When did the world's polity, economy, environment, culture, and society become global? What analytical tools exist to help students understand globalization's influence on politics, cultures, values and ecosystems?

An interdisciplinary introduction provokes students to think about how globalization touches their lives and to analyze distinct responses to globalization's effects on societies, governments and natural resources. Introductory courses are drawn from existing general education requirements. Students should check carefully the prerequisites for upper-level courses in the minor before choosing lower-level general education courses.

Global Studies upper-level core courses help students acquire knowledge about globalization from a variety of interdisciplinary perspectives, historical experiences, and cultural preferences. Core requirements address the implications of globalization for citizens, states and communities around the world, include surveys of recent literature, and strengthen communication skills and critical thinking.

Students are encouraged to participate in travel courses and study abroad offered by the University. Some travel courses contain global content and may be applied to the Global Studies minor. Please contact an adviser concerning appropriateness of a specific travel course. At least two years of a modern foreign language is strongly recommended.

Upon completing the minor in Global Studies, students will be able to

- reflect upon and ask questions about connections and contradictions in public debates over globalization.
- recognize and identify different disciplinary perspectives being used when discussing globalization.
- evaluate differences in political systems, including institutional design and the roles that citizens play in them.
- analyze the complex nature of global environmental sustainability issues and problems and the interrelated roles of science, administration, politics, and technology in their solution.
- explain how human societies are inextricably connected with local, regional, and global systems.


## Minor



| HISTORY 326 | Global Environmental History |
| :--- | :--- |
| HISTORY 450 | War and Civilization |
| NURSING 492 | Special Topics in Nursing (Topic: Global Aspects of Healthcare) |
| POL SCI 380 | Global Environmental Politics and Policy |
| PSYCH 350 | Cultural Psychology |
| Global Peoples: nationality, ethnicity, race and religion |  |
| GEOG 370 | Geography of South America |
| HISTORY 334 | Contemporary Europe |
| HISTORY 337 | The Rise of Islamic Civilization to 1800 |
| HUM STUD 360 | Globalization and Cultural Conflict |
| HUM STUD 384 | Topics in World Cultures |
| POL SCI 353 | Politics of Developing Areas |

## Total Credits

## Faculty

Kevin M Kain; Teaching Professor; Ph.D., Western Michigan University
David N Coury; Professor; Ph.D., University of Cincinnati
Marcelo P Cruz; Professor; Ph.D., University of California - Los Angeles
Ekaterina M Levintova; Professor; Ph.D., Western Michigan University
Cristina M Ortiz; Professor; Ph.D., University of Cincinnati
Christine L Vandenhouten; Professor; Ph.D., Marquette University*
Tohoro F Akakpo; Associate Professor; Ph.D., Michigan State University*
Alise Coen; Associate Professor; Ph.D., University of Delaware
Clifton G Ganyard; Associate Professor; Ph.D., State University of New York at Buffalo, chair
Eric J Morgan; Associate Professor; Ph.D., University of Colorado at Boulder
Heidi M Sherman; Associate Professor; Ph.D., University of Minnesota
Elizabeth E Wheat; Associate Professor; Ph.D., Western Michigan University*

## Graphic Design

## (Bachelor of Arts)

The Graphic Design major emphasis is the study of the theory and practice of contemporary graphic design. The graphic design curriculum includes a series of core courses in the history, applications, and influences of print and web /interactive communications. The major emphasis emphasizes the design process as a creative decision-making tool. Students learn to develop and apply problem-solving methods and use design software and hardware along with traditional image-making, to develop effective design solutions.

This major provides a contemporary liberal arts education and an array of skills for a range of careers and advanced study, including graphic design, advertising and marketing, publications management, art direction, creative direction, and multi-media and website design, among others. The program has a practicum and internship component through which students can gain professional experience and portfolio development.

## Major

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| ART 105 | Introductory Drawing |
| ART 106 | Three Dimensional Design |
| ART 107 | Two-Dimensional Design |
| DESIGN 231 | Graphic Design Studio I |
| Choose one |  |


| DESIGN 236 | Environmental Design Studio I |
| :--- | :--- |
| ART 210 | Introduction to Painting |
| ART 243 | Introduction to Photography |
| ART 270 | Introduction to Printmaking |
| History and Theory |  |
| Art History | Modern Art |
| ART 202 | Modern American Culture |
| ART 376 | History of Photography |
| ART 380 |  |
| Theory | Introduction to Design and Culture |
| DESIGN 131 | Fundamentals of Public Address |
| COMM 133 | Introduction to Computing \& Internet Technologies |
| COMP SCI 201 |  |
| Upper Level Design Studio | Graphic Design Studio II |
| DESIGN 332 | Typography |
| DESIGN 350 | Graphic Design Studio III |
| DESIGN 431 | Advanced Studio |
| DESIGN 433 | Design Arts Publication Workshop |
| DESIGN 435 | Professional Practice Capstone |
| DESIGN 475 |  |
| Electives | $\mathbf{1 5}$ |
| any 300-level Art or Design course |  |
| any 400-level Art or Design course |  |
| DESIGN 497 | Internship |

## Faculty

Jeffrey A Benzow; Associate Professor; M.F.A., University of Wisconsin - Milwaukee, chair
Abbey Kleinert; Assistant Professor; M.F.A., University of Minnesota
Addie M Sorbo; Associate Teaching Professor; B.A., University of Wisconsin - Green Bay

## Health Information Management and Technology

## (Bachelor of Science)

The Bachelor of Science in Health Information Management and Technology (HIMT) is designed to provide students with the knowledge and competencies required to meet the growing need for professionals to work in this rapidly expanding and evolving area of health care. The degree focuses on the information sector of the healthcare industry because it is one of the fastest growing and evolving segments of the industry. The new advances in health-related technologies, patient records, etc. bring with them new regulations and new concerns for privacy and security. Highly skilled professionals are needed to manage this area, and graduates of the HIMT degree will be very well positioned to meet that need. The online program is designed to meet the needs of adult learners.

HIMT is a degree completion program designed for adult learners who already have some college credits or a liberal arts-based associate degree. It is also ideal for adults who have completed a bachelor's degree in another domain and seek a second bachelor's in HIMT to gain entry to this high-growth field. You may be eligible for admission to this program if you have completed approximately 60 semester credits of transferable general education coursework with a 2.0 or better grade point average (GPA).

Additional admission requirements include completion of Introductory College Algebra, Introductory Biology, and Introductory Communications, or their equivalents, passed with grades of C or better; and completion of UW-Green Bay's lower-level General Education Program requirements.

The HIMT program will prepare knowledgeable and skillful professionals to assume leadership positions within the public and private sectors. Within organizations, a HIMT professional will be able to manage and administer health information technologies that span across divisions, departments and businesses.

Graduates of the HIMT program will be able to:

- Demonstrate knowledge of healthcare billing, coding and reimbursement policies.
- Demonstrate knowledge of healthcare terminology and medical conditions.
- Demonstrate knowledge of dynamic healthcare delivery systems and regulatory environments.
- Apply principles of healthcare privacy, confidentiality, legal, ethical issues and data security.
- Apply critical and creative thinking, problem solving, and effective inter-professional communication skills related to health information management.
- Evaluate, use, and integrate information technology to support medical decision making and processes.
- Apply quantitative methodologies to process healthcare information.
- Healthcare Management Emphasis -

Demonstrate the principles of leadership and management in the HIMT environment.

- Healthcare Technology Emphasis -

Demonstrate the application of information technology in the HIMT environment.
This program offers courses in conjunction with three partner campuses: UW-Parkside, UW-La Crosse and UW-Stevens Point.
Students admitted to the program will take 48 credits of core courses, designed to prepare them for the HIMT field. They will then select one of two emphases, either healthcare management or healthcare technology, to further focus their knowledge in one of these areas of specialization. Coursework will culminate in a capstone course, where students will complete an HIMT project in a field setting.

## Major Area of Emphasis (p. 212)

Students must complete requirements in one of the following areas of emphasis: (p. 212)

- Healthcare Management (p. 212)
- Healthcare Technology (p. 212)


## Faculty

Christine L Vandenhouten; Professor; Ph.D., Marquette University*
Shauna M Froelich; Associate Teaching Professor; JD, Marquette University
Misty Neal; Assistant Teaching Professor; M.B.A., Albany State University

## Health Information Management and Technology Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Healthcare Management
- Healthcare Technology


## Healthcare Management

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Courses |  | 49 |
| HIMT 301 | Digital Literacy in Healthcare |  |
| HIMT 310 | Healthcare Systems and Organizations |  |
| HIMT 320 | Survey of Information Technology in Healthcare |  |
| HIMT 330 | Healthcare I: Terminology \& Body Systems |  |
| HIMT 340 | Ethical issues, Security Management and Compliance |  |
| HIMT 350 | Statistics for Healthcare |  |
| HIMT 360 | Healthcare II: Survey of Disease \& Treatments |  |
| HIMT 370 | Healthcare Systems: Analysis \& Design |  |
| HIMT 380 | Healthcare Billing, Coding and Reimbursement |  |
| HIMT 400 | Healthcare Information and Technology - Data |  |
| HIMT 410 | Healthcare Sytems: Implementation and Integration |  |
| HIMT 420 | Healthcare Systems: Project Management |  |
| HIMT 430 | Quality Assessment and Improvement |  |
| HIMT 440 | Group Processes, Team Building and Leadership |  |


| HIMT 450 | Healthcare Information and Technology - Standards |
| :--- | :--- |
| HIMT 489 | Pre-Capstone (Must be taken semester prior to HIMT 490) |
| HIMT 490 | Capstone |


| Healthcare Management Emphasis |  |
| :--- | :--- |
| HIMT 355 | Principles of Management for HIMT Professionals |
| HIMT 365 | Healthcare Economics |
| HIMT 415 | Human Resource Management in Healthcare |
| HIMT 445 | Application of Leadership \& Management in Healthcare Technology |

Total Credits

## Healthcare Technology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Courses |  | 49 |
| HIMT 301 | Digital Literacy in Healthcare |  |
| HIMT 310 | Healthcare Systems and Organizations |  |
| HIMT 320 | Survey of Information Technology in Healthcare |  |
| HIMT 330 | Healthcare I: Terminology \& Body Systems |  |
| HIMT 340 | Ethical issues, Security Management and Compliance |  |
| HIMT 350 | Statistics for Healthcare |  |
| HIMT 360 | Healthcare II: Survey of Disease \& Treatments |  |
| HIMT 370 | Healthcare Systems: Analysis \& Design |  |
| HIMT 380 | Healthcare Billing, Coding and Reimbursement |  |
| HIMT 400 | Healthcare Information and Technology - Data |  |
| HIMT 410 | Healthcare Sytems: Implementation and Integration |  |
| HIMT 420 | Healthcare Systems: Project Management |  |
| HIMT 430 | Quality Assessment and Improvement |  |
| HIMT 440 | Group Processes, Team Building and Leadership |  |
| HIMT 450 | Healthcare Information and Technology - Standards |  |
| HIMT 489 | Pre-Capstone (Must be taken semester prior to HIMT 490) |  |
| HIMT 490 | Capstone |  |
| Healthcare Technology Emphasis |  | 12 |
| HIMT 345 | Programming and Software Development |  |
| HIMT 375 | Database Structures and Management Systems |  |
| HIMT 425 | Data Warehousing and Mining |  |
| HIMT 435 | Data Communications and Networks in Healthcare |  |

Total Credits

## History

(Bachelor of Arts)
History is an essential guide not only to the past, but to the present and the future. We cannot understand ourselves or our world without understanding the past. History also leads us to a greater awareness of the richness and complexity of our heritage.

A thorough training in history contributes to the foundation of a complete education and can directly prepare one for professional careers in many fields such as law, business, diplomacy, government service, journalism, teaching, and public relations, as well as graduate study. History's rigorous intellectual discipline and its emphasis on research and analysis nourish intellectual growth and critical thinking.

The History program fully supports and complements UW-Green Bay's mission, especially interdisciplinary and practical problem-solving. History provides information and structure to many other programs, especially in the humanities and social sciences, while receiving significant impulses from these and other disciplines. History contributes importantly to problem-solving by offering assistance in the recognition, definition, and investigation of problems, exploration of alternative solutions and guidance in their implementation.

History faculty have expertise in political, social, economic, cultural and intellectual history and an excellent record in teaching and scholarship. The University supports the History program with a good library, interlibrary loan facilities, and an exceptional collection of original documents in the Area Research Center.

Students seeking information on teacher certification should contact the Education Office.

## History Major Learning Outcomes

## Historical Knowledge and Understanding:

- Students will demonstrate an understanding of the significance of racial, ethnic, gender, and other forms of diversity in shaping human experiences and history.
- Students will display a breadth of historical knowledge and understanding with one or more chronological or geographical areas of depth.
- Students will exhibit an appreciation of how human societies are inextricably connected with local, regional, and global ecosystems.
- Students will demonstrate their own understanding of the significance of studying history and of the role of historical perspectives in engaged citizenship.
- Students will show awareness of how different approaches to studying history shape how we understand the past.
- Students will show an understanding of how power, hierarchies, and social arrangements shape society.
- Students will display an awareness of both continuity and change over time.


## Historical Skills:

- Students will critically evaluate and analyze diverse historical sources (oral, written, visual, and material) and interpretations.
- Students will be able to conduct historical research, analyze evidence, and formulate arguments using historical evidence.
- Students will communicate clearly and effectively with various audiences using written, oral, and digital means.


## Major Area of Emphasis (p. 217)

Students must complete requirements in one of the following areas of emphasis: (p.217)

- General History (p. 217)
- Public History (p. 217)
- Social Studies Education (p. 217)


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| Choose one of the following courses: |  |  |
| DJS 221 | Law and Equality in Historical Perspective |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| HISTORY 220 | American Environmental History |  |
| Choose one of the following courses: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| Upper-Level Courses ${ }^{1}$ |  | 12 |
| Choose a minimum of one of the following courses: |  |  |
| DJS 361 | Historical Perspectives on American Democracy |  |
| DJS 363 | Topics in Democracy and Justice (All topics excluding South Africa.) |  |
| FNS 374 | Wisconsin First Nations History |  |
| HISTORY 302 | Problems in American Thought |  |
| HISTORY 309 | United States Immigration History |  |
| HISTORY 310 | American Colonial History |  |
| HISTORY 311 | History of Wisconsin |  |


| HISTORY 312 | The Early American Republic |
| :---: | :---: |
| HISTORY 340 | Topics in African American History |
| HISTORY 353 | The U.S. and the World |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 400 | Voyageur Magazine Practicum |
| HISTORY 402 | America in the Twentieth Century |
| HISTORY 425 | Topics in U.S. History |
| Choose a minimum of one of the following courses: |  |
| DJS 363 | Topics in Democracy and Justice (Topic: South Africa) |
| HISTORY 301 | The Middle Ages |
| HISTORY 325 | History of Modern Germany |
| HISTORY 332 | Europe in the 19th Century |
| HISTORY 333 | Europe in the 20th Century |
| HISTORY 334 | Contemporary Europe |
| HISTORY 337 | The Rise of Islamic Civilization to 1800 |
| HISTORY 356 | History of Modern Africa |
| HISTORY 421 | Topics in Medieval History |
| HISTORY 422 | Topics in Early Modern European History |
| HISTORY 423 | Topics in Modern European History |
| HISTORY 424 | Nazi Germany |
| HISTORY 470 | Studies in Comparative History |

Any other 300-400 History courses may be used to complete this requirement
Total Credits
1 Students are required to take one course from Category I and one course from Category II as listed under the major. The remaining 6 credits may be selected from any 300- or 400- level History course, or DJS 361 or FNS 374.

## Curriculum Guide

The following curriculum guide for a four-year History degree program is subject to change without notice. Students should consult a History program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

## An example: Four year plan for History Major

120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HISTORY 205 | American History to 1865 | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| HISTORY 206 | History of the United States from 1865 to the Present | 3 |
| HISTORY 103 or HISTORY 104 | World Civilizations I or World Civilizations II | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |

## Sophomore

Fall
HISTORY 101

| General Ed |  | 3 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| HISTORY 102 | Foundations of Western Culture II | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| HISTORY 337 <br> or HISTORY 356 | The Rise of Islamic Civilization to 1800 or History of Modern Africa | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 12 |
| Spring |  |  |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| HISTORY 302 | Problems in American Thought | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 12 |
| Spring |  |  |
| HISTORY 480 | Seminar in History | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 114 |

## Faculty

Kevin M Kain; Teaching Professor; Ph.D., Western Michigan University
Mark Karau; Professor; Ph.D., Florida State University
Jon K Shelton; Professor; Ph.D., University of Maryland
David J Voelker; Professor; Ph.D., University of North Carolina at Chapel Hill
Clifton G Ganyard; Associate Professor; Ph.D., State University of New York at Buffalo
Daniel Kallgren; Associate Professor; Ph.D., University of Minnesota - Twin Cities
John P Leary; Associate Professor; Ph.D., University of Wisconsin - Madison*
James Vincent Lowery; Associate Professor; Ph.D., University of Mississippi
Eric J Morgan; Associate Professor; Ph.D., University of Colorado at Boulder
Kimberley A Reilly; Associate Professor; Ph.D., University of Chicago

Heidi M Sherman; Associate Professor; Ph.D., University of Minnesota, chair
Lisa Lamson; Assistant Teaching Professor; Ph.D., Marquette University

## History Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- General History
- Public History
- Social Studies Education


## General History

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 18 |
| American History |  |  |
| Choose one of the following courses: |  |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| Choose one of the following courses (if not used above): |  |  |
| DJS 221 | Law and Equality in Historical Perspective |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| HISTORY 220 | American Environmental History |  |
| HISTORY 256 | Introductory Topics in History (U.S. History Topics) |  |
| Western and World History |  |  |
| Choose one of the following courses: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 103 | World Civilizations I |  |
| Choose one of the following courses: |  |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 104 | World Civilizations II |  |
| Choose one of the following courses (if not used above): |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| HISTORY 256 | Introductory Topics in History (Western and World History Topics) |  |
| Historical Methods |  |  |
| HISTORY 290 | The Craft of History |  |
| Upper-Level Courses |  | 27 |
| HISTORY 480 | Seminar in History |  |
| Category I, American History |  |  |
| Choose one of the following courses: |  |  |
| DJS 361 | Historical Perspectives on American Democracy |  |
| FNS 374 | Wisconsin First Nations History |  |
| HISTORY 302 | Problems in American Thought |  |
| HISTORY 309 | United States Immigration History |  |
| HISTORY 310 | American Colonial History |  |
| HISTORY 311 | History of Wisconsin |  |
| HISTORY 312 | The Early American Republic |  |


| HISTORY 340 | Topics in African American History |
| :--- | :--- |
| HISTORY 353 | The U.S. and the World |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 400 | Voyageur Magazine Practicum |
| HISTORY 402 | America in the Twentieth Century |
| HISTORY 425 | Topics in U.S. History |

## Category II, European History

Choose one of the following courses:

| HISTORY 301 | The Middle Ages |
| :--- | :--- |
| HISTORY 325 | History of Modern Germany |
| HISTORY 332 | Europe in the 19th Century |
| HISTORY 333 | Europe in the 20th Century |
| HISTORY 334 | Contemporary Europe |
| HISTORY 421 | Topics in Medieval History |
| HISTORY 422 | Topics in Early Modern European History |
| HISTORY 423 | Topics in Modern European History |
| HISTORY 424 | Nazi Germany |

## Category III, World History

Choose one of the following courses:

| DJS 363 | Topics in Democracy and Justice (Topic: South Africa) |
| :--- | :--- |
| HISTORY 326 | Global Environmental History |
| HISTORY 337 | The Rise of Islamic Civilization to 1800 |
| HISTORY 356 | History of Modern Africa |
| HISTORY 421 | Topics in Medieval History (Topic: Medieval Russia) |
| HISTORY 470 | Studies in Comparative History (Topic: Mongols) |

Choose 15 credits from the following courses:
Any 300-400 History courses may be used to complete this requirement if not used above
DJS 363 Topics in Democracy and Justice
Topics: South Africa (if not used above); The U.S. and Genocide; Hist Perspectives on US Education System; The National Parks; The History of Transience in the United States; Race, Gender, and the History of Civil Rights
FNS $374 \quad$ Wisconsin First Nations History

WOST 350
Topics in Women's, Gender, and Sexuality Studies (Topic: LGBTQ+ Archive Workshop)
Total Credits

## Public History

| Code |
| :--- |
| Supporting Courses |
| American History |
| Choose one of the following courses: |
| HISTORY 205 American History to 1865 <br> HISTORY 206 History of the United States from 1865 to the Present <br> Choose one of the following courses (if not used above):  <br> DJS 221 Law and Equality in Historical Perspective <br> HISTORY 205 American History to 1865 <br> HISTORY 206 History of the United States from 1865 to the Present <br> HISTORY 207 Introduction to African-American History <br> HISTORY 220 American Environmental History <br> HISTORY 256 Introductory Topics in History (U.S. History Topics)  |


| HISTORY 101 | Foundations of Western Culture I |
| :--- | :--- |
| HISTORY 103 | World Civilizations I |

Choose one of the following courses:

| HISTORY 102 | Foundations of Western Culture II |
| :--- | :--- |
| HISTORY 104 | World Civilizations II |
| Choose one of the following courses (if not used above): |  |
| HISTORY 101 | Foundations of Western Culture I |
| HISTORY 102 | Foundations of Western Culture II |
| HISTORY 103 | World Civilizations I |
| HISTORY 104 | World Civilizations II |
| HISTORY 256 | Introductory Topics in History (Western and World History Topics) |

Historical Methods
HISTORY 290 The Craft of History
Public Administration
PUB ADM 215 Introduction to Public Administration
Upper-Level Courses 27
Category I, American History
Choose one of the following courses:

| DJS 361 | Historical Perspectives on American Democracy |
| :--- | :--- |
| FNS 374 | Wisconsin First Nations History |
| HISTORY 302 | Problems in American Thought |
| HISTORY 309 | United States Immigration History |
| HISTORY 310 | American Colonial History |
| HISTORY 311 | History of Wisconsin |
| HISTORY 312 | The Early American Republic |
| HISTORY 340 | Topics in African American History |
| HISTORY 353 | The U.S. and the World |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 370 | History of Sexuality in the U.S. |
| HISTORY 380 | U.S. Women's History |
| HISTORY 402 | America in the Twentieth Century |
| HISTORY 425 | Topics in U.S. History |

## Category II, European History

Choose one of the following courses:

| HISTORY 301 | The Middle Ages |
| :--- | :--- |
| HISTORY 325 | History of Modern Germany |
| HISTORY 332 | Europe in the 19th Century |
| HISTORY 333 | Europe in the 20th Century |
| HISTORY 334 | Contemporary Europe |
| HISTORY 421 | Topics in Medieval History |
| HISTORY 422 | Topics in Early Modern European History |
| HISTORY 423 | Topics in Modern European History |
| HISTORY 424 | Nazi Germany |

## Category III, World History

Choose one of the following courses:

| DJS 363 | Topics in Democracy and Justice (Topic: South Africa) |
| :--- | :--- |
| HISTORY 326 | Global Environmental History |
| HISTORY 337 | The Rise of Islamic Civilization to 1800 |
| HISTORY 356 | History of Modern Africa |
| HISTORY 421 | Topics in Medieval History (Topic: Medieval Russia) |
| HISTORY 470 | Studies in Comparative History (Topic: Mongols) |

Public History Experience

| HISTORY 399 | Public History Methods |
| :--- | :--- |
| HISTORY 400 | Voyageur Magazine Practicum |
| or HISTORY 497 | Internship |
| Professional Skills |  |
| Choose two of the following courses: |  |
| COMM 317 | How to Create Great Social Media Content |
| COMM 378 | Documentary Video Production |
| ORG LEAD 347 | Budgeting and Financial Management |
| PUB ADM 315 | Public and Non-Profit Management |
| PUB ADM 344 | Leadership in Organizations |
| PUB ADM 415 | Public and Nonprofit Budgeting |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |
| Electives |  |
| Choose 6 credits from the following courses: |  |
| Any $300-$ or 400 -level History course not used above |  |
| DJS 363 | Topics in Democracy and Justice |
| FNS 374 | Wisconsin First Nations History |
| WOST 350 | Topics in Women's, Gender, and Sexuality Studies (Topic: LGBTQ+ Archive Workshop) |

## Total Credits

## Social Studies Education

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 15 |
| POL SCI 101 | American Government and Politics |  |
| HISTORY 205 | American History to 1865 |  |
| or HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| HISTORY 290 | The Craft of History |  |
| Choose one of the following: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| POL SCI 100 | Global Politics and Society |  |
| FNS 374 | Wisconsin First Nations History |  |
| Quantitative Licensure Requirement |  | 3 |
| PSYCH 205 | Social Science Statistics |  |
| MATH 100 | Math Appreciation |  |
| MATH 101 | Advanced Algebra (or higher) |  |
| Required Content Courses |  | 15 |
| FNS 225 | Introduction to First Nations Studies |  |
| DJS 365 | U.S. Labor and the Working Class: Past and Present |  |
| POL SCI 406 | State and Local Government |  |
| Choose one of the following: |  |  |
| HISTORY 333 | Europe in the 20th Century |  |
| HISTORY 423 | Topics in Modern European History (Topics: NAZI GERMANY or THE HOLOCAUST) |  |
| DJS 353 | The U.S. and the World |  |
| DJS 363 | Topics in Democracy and Justice (Topic: THE U.S. AND GENOCIDE) |  |
| POL SCI 351 | Comparative Politics |  |
| Choose one of the following |  |  |
| HISTORY 220 | American Environmental History |  |
| HISTORY 326 | Global Environmental History |  |


| POL SCI 380 | Global Environmental Politics and Policy |
| :---: | :--- |
| PUB ADM 301 | Environmental Politics and Policy |
| Broadfield Requirements | Macro Economic Analysis |
| ECON 202 | Micro Economic Analysis |
| or ECON 203 | Introduction to Psychology |
| PSYCH 102 | Introduction to Lifespan Development |
| or PSYCH 203 | Introduction to Sociology |
| SOCIOL 101 | Ethnic and Racial Identities |
| or SOCIOL 203 | Sociological Perspectives on Gender |
| or SOCIOL 238 | Native American Landscapes:Imagined and Lived Spaces (or GEOG 200-level or higher) |
| SOCIOL 216 |  |

Choose any 300- or 400-level History course not used above, including HISTORY 480
Total Credits

## Human Biology

(Bachelor of Science)
Human Biology focuses on the study of the biological, physiological, nutritional, developmental, and evolutionary aspects of humans. The major has an extensive range of offerings with core courses emphasizing human function, genetics, nutrition, and evolution.

Students who major in Human Biology gain extensive skills within the laboratory environment, including physiological, cellular, molecular, and statistical analyses. The laboratories house state-of-the-art instruments and equipment for students to gain valuable experience. Participation in faculty research projects or internships is strongly encouraged.

All Human Biology majors complete an area of emphasis within the program. There are five areas of emphasis within the major:

- The health science emphasis provides preparation for medical, dental, physician assistant and other health-related professional schools; for graduate programs in biological or biomedical sciences; or entry-level research positions with pharmaceutical or biotechnology companies.
- The exercise science emphasis provides a background for careers in physical therapy, occupational therapy, athletic training, strength and conditioning, exercise physiology, fitness, or bio-mechanics.
- The nutritional sciences/dietetics emphasis is accredited as a Didactic Program in Dietetics by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. Employment opportunities include healthcare, nutrition education, governmental and community health agencies, fitness facilities, public policy, agribusiness, and the food service industry. Students who successfully complete this program may apply for entry into a Dietetic Internship program, which is required to become a registered dietitian. Registered dietitians provide food and nutritional services with a focus on health promotion and disease prevention.
- The applied health emphasis provides preparation for careers in public health. Students interested in pursuing a MPH (Master's of Public Health) and/or working in community health will benefit from this curriculum. This includes students considering a career as a "health inspector" as it helps prepare them for the registered sanitarian exam. http://www.weha.net/registeredsanitarianinfo.php
- The general emphasis is appropriate for students seeking careers in industrial, managerial, or sales positions in biological or health-related industries.
- The cytotechnology emphasis is offered in affiliation with professional programs of cytotechnology at UW-Madison and the Mayo Clinic. Cytotechnology is the microscopic study of cells primarily for detection of cancer. This emphasis leads to a degree in Human Biology with eligibility for professional certification.

The Human Biology major/minor may be combined with other majors/minors for students interested in areas such as scientific journalism, scientific illustration, biological photography, genetic counseling, bioinformatics, public health administration, pharmaceutical sales, or other health-related professions.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Major Areas of Emphasis (p. 222)

Students must complete requirements in one of the following areas of emphasis: (p.222)

- Health Science (p. 222)
- Exercise Science (p. 222)
- Applied Public Health (p. 222)
- Nutritional Sciences/Dietetics (p. 222)
- Nutritional Sciences/Detetics (Accelerated) - Integrated with graduate Nutrition and Integrated Health program (p. 222)
- General Human Biology (p. 222)
- Cytotechnology (p. 222)
- Athletic Training (Accelerated) - Integrated with graduate Master of Athletic Training program (p. 222)


## Minor Areas of Emphasis (p. 235)

Students must complete requirements in one of the following areas of emphasis: (p.235)

- Applied Human Biology (p. 235)
- General Human Biology (p. 235)


## Curriculum Guides (p. 236)

The following are curriculum guides for the four-year Human Biology degree program and is subject to change without notice. Students should consult a Human Biology program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option. (p. 236)

- Human Biology Major with Exercise Science Emphasis Curriculum Guide (p. 236)
- Human Biology Major with Health Science Emphasis Curriculum Guide (p. 236)
- Human Biology Major with Nutritional Sciences / Dietetics Emphasis Curriculum Guide (p. 236)
- Human Biology Major with General Emphasis Curriculum Guide (p. 236)
- Human Biology Major with Cytotechnology Emphasis Curriculum Guide (p. 236)


## Faculty

Douglas Brusich; Associate Professor; Ph.D., University of Iowa
Jared Dalberg; Associate Professor; M.Ed., Augusta State University
Georgette Heyrman; Associate Professor; Ph.D., Northwestern University
Carly Kibbe; Associate Professor; Ph.D., University of Wisconsin - Madison
James C Marker; Associate Professor; Ph.D., Brigham Young University, chair*
Daniel J Meinhardt; Associate Professor; Ph.D., University of Kansas*
Brian J Merkel; Associate Professor; Ph.D., Virginia Commonwealth University
Amanda J Nelson; Associate Professor; PH.D., University of Illinois at Urbana - Champaign
Debra A Pearson; Associate Professor; Ph.D., University of California - Davis
Uwe Pott; Associate Professor; Ph.D., University of Zurich (Switzerland)
Elizabeth Leon; Assistant Professor; Ph.D., University of Nevada - Las Vegas
Paul R Mueller; Assistant Professor; Ph.D., California Institute of Technology
Rachel Thomas Tharmabalan; Assistant Professor; Ph.D., The National University of Malaysia
Cassie Groeschl; Assistant Teaching Professor; M.S., University of Illinois - Chicago
Sara A Wagner; Assistant Teaching Professor; M.S., University of Alabama

## Human Biology Major

Students must complete requirements in one of the following areas of emphasis:

- Health Science
- Exercise Science
- Applied Public Health
- Nutritional Sciences/Dietetics
- Nutritional Sciences/Dietetics (Accelerated) - Integrated with graduate Nutrition and Integrated Health program
- General Human Biology
- Cytotechnology
- Athletic Training (Accelerated) - Integrated with graduate Master of Athletic Training program


## Health Science



| CHEM 330 | Biochemistry |
| :---: | :--- |
| or CHEM 311 | Analytical Chemistry |

## Microbiology (choose one option):

| HUM BIOL 323 | Medical Microbiology |
| :--- | :--- |
| \& HUM BIOL 326 | and Medical Microbiology Lab |
| BIOLOGY 323 | Principles of Microbiology |
| \& BIOLOGY 324 | and Principles of Microbiology Laboratory |
| Electives (minimum of 8 credits): ${ }^{2}$ |  |


| BIOLOGY 303 | Genetics |
| :---: | :---: |
| BIOLOGY 304 | Genetics Laboratory |
| BIOLOGY 307 | Cell Biology |
| BIOLOGY 308 | Cell Biology Laboratory |
| BIOLOGY 309 | Evolutionary Biology |
| BIOLOGY 322 | Environmental Microbiology |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |
| BIOLOGY 345 | Animal Behavior |
| BIOLOGY 346 | Comparative Physiology |
| BIOLOGY 402 | Advanced Microbiology |
| BIOLOGY 407 | Molecular Biology |
| BIOLOGY 408 | Molecular Biology Laboratory |
| BIOLOGY 410 | Developmental Biology |
| BIOLOGY 411 | Developmental Biology Laboratory |
| CHEM 311 | Analytical Chemistry |
| CHEM 330 | Biochemistry |
| CHEM 331 | Biochemistry Laboratory |
| HUM BIOL 310 | Human Genetics |
| HUM BIOL 315 | Foundations of Neuroscience |
| HUM BIOL 318 | Reproductive Biology |
| HUM BIOL 322 | Epidemiology |
| HUM BIOL 324 | The Biology of Women |

HUM BIOL 331 Science and Religion: Spirit of Inquiry
HUM BIOL $333 \quad$ Principles of Sports Physiology
HUM BIOL 341 Human Anatomy Laboratory
HUM BIOL 351 Kinesiology
HUM BIOL 360 Exercise Physiology
HUM BIOL 361 Human Physiology Lab - Exercise and Metabolism
HUM BIOL 403 Human Physiology Laboratory
HUM BIOL 423 Immunology Lab
HUM BIOL 427 Cancer Biology Laboratory
HUM BIOL 401 Art and Science
HUM BIOL 413 Neurobiology
HUM BIOL 402 Human Physiology
HUM BIOL 403 Human Physiology Laboratory
HUM BIOL 422 Immunology
HUM BIOL 426 Cancer Biology
HUM BIOL 444 Endocrinology
NUT SCI 300 Human Nutrition
NUT SCI 327 Nutritional Biochemistry
NUT SCI 350 Life Cycle Nutrition
NUT SCl 427 Nutrigenomics and Advanced Nutrient Metabolism
NUT SCI 486 Medical Nutrition Therapy II: An Integrative and Functional Approach
Maximum of ONE Psychology course

| PSYCH 308 | Physiological Psychology (Maximum of ONE Psychology Course) |
| :--- | :--- |
| PSYCH 435 | Psychopathology |
| PSYCH 450 | Health Psychology |

Total Credits
1 It is highly recommended that as freshmen, pre-medical and pre-dental students take BIOLOGY 201, BIOLOGY 202 and CHEM 211, CHEM 212, CHEM 213, CHEM 214 and consult and adviser.
2 Requires a minimum of two upper-level laboratory courses within the Health Science electives

## Exercise Science



| PSYCH 308 | Physiological Psychology |
| :---: | :---: |
| PSYCH 321 | Sport and Performance Psychology |
| PSYCH 435 | Psychopathology |
| PSYCH 450 | Health Psychology |
| Elective Courses (minimum of 9 credits): ${ }^{1}$ |  |
| BIOLOGY 303 | Genetics |
| BIOLOGY 304 | Genetics Laboratory |
| BIOLOGY 307 | Cell Biology |
| BIOLOGY 308 | Cell Biology Laboratory |
| BIOLOGY 309 | Evolutionary Biology |
| BIOLOGY 322 | Environmental Microbiology |
| BIOLOGY 323 | Principles of Microbiology |
| BIOLOGY 324 | Principles of Microbiology Laboratory |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |
| BIOLOGY 345 | Animal Behavior |
| BIOLOGY 346 | Comparative Physiology |
| BIOLOGY 402 | Advanced Microbiology |
| BIOLOGY 407 | Molecular Biology |
| BIOLOGY 408 | Molecular Biology Laboratory |
| BIOLOGY 410 | Developmental Biology |
| BIOLOGY 411 | Developmental Biology Laboratory |
| CHEM 303 | Organic Chemistry II |
| CHEM 305 | Organic Chemistry Laboratory II |
| CHEM 330 | Biochemistry |
| CHEM 331 | Biochemistry Laboratory |
| HUM BIOL 310 | Human Genetics |
| HUM BIOL 315 | Foundations of Neuroscience |
| HUM BIOL 318 | Reproductive Biology |
| HUM BIOL 322 | Epidemiology |
| HUM BIOL 323 | Medical Microbiology |
| HUM BIOL 324 | The Biology of Women |
| HUM BIOL 326 | Medical Microbiology Lab |
| HUM BIOL 331 | Science and Religion: Spirit of Inquiry |
| HUM BIOL 341 | Human Anatomy Laboratory |
| HUM BIOL 361 | Human Physiology Lab - Exercise and Metabolism |
| HUM BIOL 401 | Art and Science |
| HUM BIOL 402 | Human Physiology |
| HUM BIOL 403 | Human Physiology Laboratory |
| HUM BIOL 413 | Neurobiology |
| HUM BIOL 422 | Immunology |
| HUM BIOL 423 | Immunology Lab |
| HUM BIOL 426 | Cancer Biology |
| HUM BIOL 427 | Cancer Biology Laboratory |
| HUM BIOL 444 | Endocrinology |
| HUM BIOL 495 | Teaching Assistantship |
| HUM BIOL 497 | Internship |
| HUM BIOL 498 | Independent Study |
| NUT SCI 327 | Nutritional Biochemistry |
| NUT SCI 350 | Life Cycle Nutrition |
| NUT SCI 427 | Nutrigenomics and Advanced Nutrient Metabolism |
| NUT SCI 486 | Medical Nutrition Therapy II: An Integrative and Functional Approach |

(Only) ONE course in Psychology may be used for upper-level electives.

| Total Credits | $80-83$ |
| :--- | :---: |

1 Verify 1 course is Laboratory Elective

## Applied Public Health

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 38-41 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| MATH 104 | Precalculus |  |
| MATH 260 | Introductory Statistics |  |
| NUT SCI 212 | Science of Food Preparation |  |
| NURSING 200 | Fundamentals of Healthcare Terminology |  |
| Anatomy and Physiology options (choose one): |  |  |
| HUM BIOL 240 \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| HUM BIOL 221 \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Choose one option: |  |  |
| COMM 133 | Fundamentals of Public Address |  |
| or COMM 166 | Fundamentals of Interpersonal Communication |  |
| or Any literature course, e.g., ENGLISH 104 Introduction to Literature |  |  |
| or One year of college-level foreign language |  |  |
| Upper-Level Courses |  | 30 |
| Required: |  |  |
| BIOLOGY 402 | Advanced Microbiology |  |
| HUM BIOL 322 | Epidemiology |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 312 | Quantity Food Production and Service |  |
| NUT SCI 421 | Community and Public Health Nutrition |  |
| Microbiology option (choose one): |  |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Organic Chemistry (choose one option): |  |  |
| CHEM 300 <br> \& CHEM 301 | Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory |  |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |  |

Electives, as needed, to acquire 30 credits of upper level coursework. Options to fulfill this requirement include upper level courses in Human Biology, Nutrional Science, Biology and Psychology.

## Total Credits

## Nutritional Sciences/Dietetics

Note: Students must have a grade of C or better in CHEM 211 and BIO 201 in order to declare their major in Nutritional Sciences/Dietetics emphasis

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 35-38 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| COMM 133 | Fundamentals of Public Address |  |
| MATH 260 | Introductory Statistics |  |
| NUT SCI 201 | Survey of Nutrition Related Professions |  |
| NUT SCI 212 | Science of Food Preparation |  |
| Anatomy and Physiology (choose one option): |  |  |
| HUM BIOL 240 <br> \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Psychology (choose one): |  |  |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Required Upper-Level Courses |  | 43-44 |
| CHEM 300 | Bio-Organic Chemistry |  |
| CHEM 301 | Bio-Organic Chemistry Laboratory |  |
| Genetics (choose one): |  |  |
| BIOLOGY 303 | Genetics |  |
| HUM BIOL 310 | Human Genetics |  |
| Microbiology (choose one option): |  |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| Physiology (choose one option): |  |  |
| HUM BIOL 360 \& HUM BIOL 361 | Exercise Physiology and Human Physiology Lab - Exercise and Metabolism |  |
| HUM BIOL 402 | Human Physiology |  |
| Required Upper-Level Nutrition Courses |  |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 312 | Quantity Food Production and Service |  |
| NUT SCI 350 | Life Cycle Nutrition |  |
| NUT SCI 421 | Community and Public Health Nutrition |  |
| NUT SCI 427 | Nutrigenomics and Advanced Nutrient Metabolism |  |
| NUT SCI 485 | Medical Nutrition Therapy I: An Integrative and Functional Approach |  |
| NUT SCI 486 | Medical Nutrition Therapy II: An Integrative and Functional Approach |  |
| NUT SCI 487 | Nutritional Science Seminar |  |
| Biochemistry (choose one option): |  |  |
| NUT SCI 327 | Nutritional Biochemistry |  |
| CHEM 330 \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| Additional Courses (NOT REQUIRED) to Consider |  |  |
| NUT SCI 495 | Teaching Assistantship |  |
| NUT SCI 497 | Internship |  |

# Nutritional Sciences/Dietetics (Accelerated) -Integrated with graduate Nutrition and Integrated Health program 

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 35-38 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety (must take at the same time OR before taking chemistry) |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| COMM 133 | Fundamentals of Public Address |  |
| MATH 260 | Introductory Statistics |  |
| NUT SCI 201 | Survey of Nutrition Related Professions |  |
| NUT SCI 212 | Science of Food Preparation |  |
| Anatomy and Physiology options (choose one): |  |  |
| HUM BIOL 240 \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Psychology (choose one): |  |  |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Required Upper-Level Courses |  | 43-44 |
| CHEM 300 | Bio-Organic Chemistry |  |
| CHEM 301 | Bio-Organic Chemistry Laboratory |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 312 | Quantity Food Production and Service |  |
| NUT SCI 350 | Life Cycle Nutrition |  |
| NUT SCI 421/621 | Community and Public Health Nutrition \# |  |
| NUT SCI 427/627 | Nutrigenomics and Advanced Nutrient Metabolism \# |  |
| NUT SCI 485/685 | Medical Nutrition Therapy I: An Integrative and Functional Approach \# |  |
| NUT SCI 486/686 | Medical Nutrition Therapy II: An Integrative and Functional Approach \# |  |
| NUT SCI 487 | Nutritional Science Seminar |  |
| Genetics (choose one): |  |  |
| BIOLOGY 303 | Genetics |  |
| HUM BIOL 310 | Human Genetics |  |
| Microbiology options (choose one): |  |  |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Physiology options (choose one): |  |  |
| HUM BIOL 360 <br> \& HUM BIOL 361 | Exercise Physiology and Human Physiology Lab - Exercise and Metabolism |  |
| HUM BIOL 402 | Human Physiology |  |
| Biochemistry options (choose one): |  |  |
| CHEM 330 \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| NUT SCI 327 | Nutritional Biochemistry |  |

## Additional Courses (NOT REQUIRED) to Consider

| NUT SCI 495 | Teaching Assistantship |
| :--- | :--- |
| NUT SCI 497 | Internship |
| NUT SCI 498 | Independent Study |

Total Credits
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Nutrition and Integrated Health program or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## General Human Biology




Total Credits
1 Select upper-level courses with assistance of a faculty adviser. A maximum of one PSYCH course can be applied to the major.
2 Verify 3 courses are Laboratory Elective

## Cytotechnology

- UW-Green Bay is affiliated with two schools of cytotechnology: the Mayo Clinic and UW-Madison.
- Students complete 92 credits at UW-Green Bay, including all general education requirements, and then take an 11-month, 32-credit clinical internship at one of the cooperating institutions.
- After completion of the internship, students will graduate with a degree in Human Biology and be eligible for professional certification.

| Code | Title |  |
| :--- | :--- | ---: |
| Supporting Courses |  | Credits |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |


| CHEM 213 | Principles of Chemistry I Laboratory |  |
| :---: | :---: | :---: |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| MATH 104 | Precalculus |  |
| MATH 260 | Introductory Statistics |  |
| Select one (of 3) options: |  |  |
| COMM 133 <br> or COMM 166 | Fundamentals of Public Address <br> Fundamentals of Interpersonal Communication |  |
| or Any literature course, e.g., ENGLISH 104 Introduction to Literature |  |  |
| or One year of college-level foreign language |  |  |
| Select one (of 2) Anatomy and Physiology options: |  |  |
| HUM BIOL 240 <br> \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| or |  |  |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Upper-Level Courses |  | 15-16 |
| Select one course from three of the four areas: |  |  |
| Genetics: |  |  |
| BIOLOGY 303 | Genetics |  |
| HUM BIOL 310 | Human Genetics |  |
| Physiology: |  |  |
| HUM BIOL 402 | Human Physiology |  |
| HUM BIOL 360 <br> \& HUM BIOL 361 | Exercise Physiology and Human Physiology Lab - Exercise and Metabolism |  |
| Nutrition: |  |  |
| NUT SCI 300 | Human Nutrition |  |
| Cell Biology: |  |  |
| BIOLOGY 307 | Cell Biology |  |
| BIOLOGY 323 | Principles of Microbiology |  |
| HUM BIOL 323 | Medical Microbiology |  |
| Elective courses (choose 6 credits): ${ }^{1}$ |  |  |
| HUM BIOL 310 | Human Genetics |  |
| HUM BIOL 315 | Foundations of Neuroscience |  |
| HUM BIOL 318 | Reproductive Biology |  |
| HUM BIOL 322 | Epidemiology |  |
| HUM BIOL 323 | Medical Microbiology |  |
| HUM BIOL 326 | Medical Microbiology Lab |  |
| HUM BIOL 331 | Science and Religion: Spirit of Inquiry |  |
| HUM BIOL 341 | Human Anatomy Laboratory |  |
| HUM BIOL 351 | Kinesiology |  |
| HUM BIOL 361 | Human Physiology Lab - Exercise and Metabolism |  |
| HUM BIOL 401 | Art and Science |  |
| HUM BIOL 413 | Neurobiology |  |
| HUM BIOL 422 | Immunology |  |
| HUM BIOL 426 | Cancer Biology |  |
| HUM BIOL 444 | Endocrinology |  |
| BIOLOGY 303 | Genetics |  |
| BIOLOGY 304 | Genetics Laboratory |  |
| BIOLOGY 307 | Cell Biology |  |
| BIOLOGY 308 | Cell Biology Laboratory |  |
| BIOLOGY 309 | Evolutionary Biology |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 323 | Principles of Microbiology |  |


| BIOLOGY 324 | Principles of Microbiology Laboratory |  |
| :---: | :---: | :---: |
| BIOLOGY 340 | Comparative Anatomy of Vertebrates |  |
| BIOLOGY 345 | Animal Behavior |  |
| BIOLOGY 346 | Comparative Physiology |  |
| BIOLOGY 402 | Advanced Microbiology |  |
| BIOLOGY 407 | Molecular Biology |  |
| BIOLOGY 408 | Molecular Biology Laboratory |  |
| BIOLOGY 410 | Developmental Biology |  |
| BIOLOGY 411 | Developmental Biology Laboratory |  |
| CHEM 300 | Bio-Organic Chemistry |  |
| CHEM 301 | Bio-Organic Chemistry Laboratory |  |
| CHEM 302 | Organic Chemistry I |  |
| CHEM 303 | Organic Chemistry II |  |
| CHEM 304 | Organic Chemistry Laboratory I |  |
| CHEM 305 | Organic Chemistry Laboratory II |  |
| CHEM 330 | Biochemistry |  |
| CHEM 331 | Biochemistry Laboratory |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 327 | Nutritional Biochemistry |  |
| NUT SCI 350 | Life Cycle Nutrition |  |
| NUT SCI 427 | Nutrigenomics and Advanced Nutrient Metabolism |  |
| NUT SCI 486 | Medical Nutrition Therapy II: An Integrative and Functional Approach |  |
| (Only) ONE Psychology course may be used for upper level electives. |  |  |
| PSYCH 308 | Physiological Psychology |  |
| PSYCH 435 | Psychopathology |  |
| PSYCH 450 | Health Psychology |  |
| Cytotechnology Internship |  | 32 |
| HUM BIOL 497 | Internship ${ }^{2}$ |  |

## Total Credits

1 Additional upper-level courses in Human Biology, Biology and Chemistry will depend upon the student's choice of clinical facility. These courses should be selected with the help of a faculty adviser.
2 Students complete 32 credits of internship total over a 3 semester sequence. In some situations students may choose to pursue clinical training after graduation from UW-Green Bay. In this option is selected, additional upper-level elective credits are required. Consult an adviser for these situations.

# Athletic Training (Accelerated) - Integrated with graduate Master of Athletic Training program 

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 41-44 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| HUM BIOL 210 | Prevention and Treatment of Athletic Injuries |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 102 | Introduction to Psychology |  |
| First Aid/CPR |  |  |


| HUM BIOL 116 | First Aid and Emergency Care Procedures (First Aid/CPR Requirement may be met with Red Cross Certification)) |
| :---: | :---: |
| Choose one: |  |
| HIMT 330 | Healthcare I: Terminology \& Body Systems |
| NURSING 200 | Fundamentals of Healthcare Terminology |
| Physics Options (choose one): |  |
| PHYSICS 103 <br> \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |
| PHYSICS 201 \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |
| Anatomy and Physiology Options (choose one): |  |
| HUM BIOL 240 \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |
| Upper-Level Courses: |  |
| HUM BIOL 333 | Principles of Sports Physiology |
| HUM BIOL 343 | Exercise Training and Prescription |
| HUM BIOL 344 | Motor Learning and Performance |
| HUM BIOL 351 | Kinesiology |
| HUM BIOL 360 | Exercise Physiology |
| HUM BIOL 361 | Human Physiology Lab - Exercise and Metabolism |
| HUM BIOL 402 | Human Physiology |
| HUM BIOL 451 | Biomechanics |
| NUT SCI 300 | Human Nutrition |
| Psychology (choose one): |  |
| PSYCH 308 | Physiological Psychology |
| PSYCH 321 | Sport and Performance Psychology |
| PSYCH 435 | Psychopathology |
| PSYCH 450 | Health Psychology |
| MAT courses (choose 9-12 credits): |  |
| AT 541 | Clinical Anatomy \& Physiology |
| AT 601 | Foundations of Athletic Training |
| AT 605 | Therapeutic Interventions I |
| AT 610 | Psychosocial Aspects of Healthcare |
| AT 620 | Evaluation and Management of Acute/Emergent Conditions |
| AT 651 | Clinical Exercise Sciences |
| Additional Upper-Level Electives: |  |
| BIOLOGY 303 | Genetics |
| BIOLOGY 304 | Genetics Laboratory |
| BIOLOGY 307 | Cell Biology |
| BIOLOGY 308 | Cell Biology Laboratory |
| BIOLOGY 309 | Evolutionary Biology |
| BIOLOGY 323 | Principles of Microbiology |
| BIOLOGY 324 | Principles of Microbiology Laboratory |
| CHEM 300 <br> \& CHEM 301 | Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory |
| CHEM 302 <br> \& CHEM 304 | Organic Chemistry I and Organic Chemistry Laboratory I |
| HUM BIOL 310 | Human Genetics |
| HUM BIOL 315 | Foundations of Neuroscience |
| HUM BIOL 322 | Epidemiology |
| HUM BIOL 323 | Medical Microbiology |


| HUM BIOL 326 | Medical Microbiology Lab |
| :--- | :--- |
| HUM BIOL 341 | Human Anatomy Laboratory |
| HUM BIOL 403 | Human Physiology Laboratory |
| HUM BIOL 413 | Neurobiology |
| HUM BIOL 422 | Immunology |
| HUM BIOL 423 | Immunology Lab |
| HUM BIOL 495 | Teaching Assistantship |
| HUM BIOL 496 | Project/Research Assistantship |
| HUM BIOL 497 | Internship |
| HUM BIOL 498 | Independent Study |

## Total Credits

\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the MAT office or refer to the graduate catalog (https://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Human Biology Minor

Students must complete requirements in one of the following areas of emphasis:

- Applied Human Biology
- General Human Biology


## Applied Human Biology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 20-23 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| Anatomy and Physiology options (choose one): |  |  |
| HUM BIOL 240 <br> \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Upper-Level Courses |  | 14-16 |
| Molecular Biology or Biochemistry options (choose one): |  |  |
| BIOLOGY 407 <br> \& BIOLOGY 408 | Molecular Biology and Molecular Biology Laboratory |  |
| CHEM 330 <br> \& CHEM 331 | Biochemistry and Biochemistry Laboratory |  |
| Physiology options (choose one): |  |  |
| BIOLOGY 346 | Comparative Physiology |  |
| HUM BIOL 360 \& HUM BIOL 361 | Exercise Physiology and Human Physiology Lab - Exercise and Metabolism |  |
| HUM BIOL 402 | Human Physiology |  |
| Electives |  |  |
| Choose 7-8 credits adviser. | Biology, Chemistry, Human Biology or Nutritional Scien |  |

## General Human Biology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 14-23 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 207 | Laboratory Safety |  |
| Anatomy and Physiology options (choose one): |  |  |
| HUM BIOL 240 \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| Chemistry options (choose one): |  |  |
| CHEM 211 <br> \& CHEM 212 <br> \& CHEM 213 <br> \& CHEM 214 | Principles of Chemistry I and Principles of Chemistry II and Principles of Chemistry I Laboratory and Principles of Chemistry II Laboratory |  |
| or |  |  |
| CHEM 108 \& CHEM 109 | Survey of General, Organic and Biochemistry and Survey of General, Organic, and Biochemistry Laboratory |  |
| Upper-Level Courses |  | 12-13 |
| Choose one course from each of the following areas: |  |  |
| Genetics |  |  |
| BIOLOGY 303 | Genetics |  |
| HUM BIOL 310 | Human Genetics |  |
| Physiology |  |  |
| HUM BIOL 402 | Human Physiology |  |
| HUM BIOL 360 \& HUM BIOL 361 | Exercise Physiology and Human Physiology Lab - Exercise and Metabolism |  |
| Nutrition |  |  |
| NUT SCI 300 | Human Nutrition |  |
| NUT SCI 350 | Life Cycle Nutrition |  |
| Cell Biology |  |  |
| BIOLOGY 323 | Principles of Microbiology |  |
| BIOLOGY 307 | Cell Biology |  |

Total Credits

## Human Biology Curriculum Guides

The following are curriculum guides for the four-year Human Biology degree program and is subject to change without notice. Students should consult a Human Biology program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Human Biology Major with Exercise Science Emphasis Curriculum Guide
- Human Biology Major with Health Science Emphasis Curriculum Guide
- Human Biology Major with Nutritional Sciences / Dietetics Emphasis Curriculum Guide
- Human Biology Major with General Emphasis Curriculum Guide
- Human Biology Major with Cytotechnology Emphasis Curriculum Guide


## Human Biology Major with Exercise Science Emphasis

An example: Four year plan for Human Biology Major with Exercise Science Emphasis
This is a representative plan. Check with your advisor to see that your plan meets the requirements for this emphasis.
120 credits necessary to graduate.


## Spring

Human Biology Upper Level Elective

| Capstone |  | 1-3 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 13-15 |

## Human Biology Major with Health Science Emphasis

## An example: Four year plan for Human Biology Major with Health Science Emphasis

This is a representative plan. Check with your advisor to see that your plan meets the requirements for this emphasis.
120 credits necessary to graduate.



## Human Biology Major with Nutritional Sciences / Dietetics Emphasis

An example: Four year plan for Human Biology Major with Nutritional Sciences/Dietetics Emphasis
This is a representative plan. Check with your advisor to see that you meet the requirements for this emphasis.
Meet with your faculty mentor to see if you may be a candidate for the accelerated program.
120 credits necessary to graduate.
Note: Students must have a grade of C or better in CHEM 211 and BIO 201 in order to declare their major in Nutritional Sciences/Dietetics Emphasis.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| NUT SCI 201 | Survey of Nutrition Related Professions | 1 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes | 3 |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes | 1 |
| CHEM 207 | Laboratory Safety | 1 |
| MATH 104 | Precalculus (if needed) | 4 |
| NUT SCI 198 | First Year Seminar | 3 |
|  | Credits | 13 |
| Spring |  |  |
| WF 100 | First Year Writing (if needed) | 3 |
| PSYCH 102 | Introduction to Psychology (or Introduction to Lifespan Development) | 3 |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| Gen Ed |  | 3 |
|  | Credits | 14 |
| Sophomore |  |  |
| Fall |  |  |
| NUT SCI 212 | Science of Food Preparation | 4 |
| WF 105 | Research and Rhetoric | 3 |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| MATH 260 | Introductory Statistics | 4 |
| HUM BIOL 240 | Anatomy and Physiology | 4 |
| HUM BIOL 241 | Anatomy and Physiology Lab | 1 |
| NUT SCI 300 | Human Nutrition | 3 |


| General Ed |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| HUM BIOL 323 | Medical Microbiology | 3 |
| HUM BIOL 326 | Medical Microbiology Lab | 1 |
| HUM BIOL 310 | Human Genetics (or Genetics) | 3 |
| COMM 133 | Fundamentals of Public Address | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| NUT SCI 312 | Quantity Food Production and Service | 4 |
| NUT SCI 350 | Life Cycle Nutrition | 3 |
| CHEM 300 | Bio-Organic Chemistry | 3 |
| CHEM 301 | Bio-Organic Chemistry Laboratory | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Senior |  |  |
| Fall |  |  |
| NUT SCI 327 | Nutritional Biochemistry | 4 |
| NUT SCI 421 | Community and Public Health Nutrition (NUT SCI 621 for Accelerated Students) | 3 |
| NUT SCI 485 | Medical Nutrition Therapy I: An Integrative and Functional Approach (NUT SCI 685 for Accelerated Students) | 3 |
| NUT SCI 487 | Nutritional Science Seminar | 1 |
| Elective if needed |  | 4 |
|  | Credits | 15 |
| Spring |  |  |
| NUT SCI 427 | Nutrigenomics and Advanced Nutrient Metabolism (NUT SCI 627 for Accelerated Students) | 3 |
| NUT SCI 486 | Medical Nutrition Therapy II: An Integrative and Functional Approach (NUT SCI 686 for Accelerated Students) | 3 |
| HUM BIOL 402 | Human Physiology (or HUM BIOL 360/361 - fall only ) | 3 |
| Elective if needed |  | 3 |
| Elective if needed |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 120 |

## Human Biology Major with General Emphasis

## An example: Four year plan for Human Biology Major with General Human Biology Emphasis

This is a representative plan. Check with your advisor to see that your plan meets the requirements for this emphasis.
120 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 201 \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| MATH 104 | Precalculus (if needed or First Year Seminar) | 4 |
|  | Credits | 14 |
| Spring |  |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| HUM BIOL 240 | Anatomy and Physiology | 4 |
| HUM BIOL 241 | Anatomy and Physiology Lab | 1 |
| MATH 260 | Introductory Statistics | 4 |
| WF 105 | Research and Rhetoric | 3 |
|  | Credits | 17 |


| Sophomore |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| $\begin{aligned} & \text { BIOLOGY } 303 \\ & \text { or HUM BIOL } 310 \end{aligned}$ | Genetics or Human Genetics | 3 |
| COMM 133 <br> or ENGLISH 104 | Fundamentals of Public Address (or Modern Language) or Introduction to Literature | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 12 |
| Spring |  |  |
| NUT SCI 300 | Human Nutrition | 3 |
| Human Biology Upper Level Elective |  | 3 |
| Modern Language (if using this for requirement) or General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| BIOLOGY 307 | Cell Biology | 4 |
| \& BIOLOGY 308 | and Cell Biology Laboratory (or BIOLOGY 302) |  |
| Human Biology Upper Level Elective |  | 3 |
| Human Biology Upper Level Lab |  | 1-2 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 14-15 |
| Spring |  |  |
| HUM BIOL 360 | Exercise Physiology | 4 |
| \& HUM BIOL 361 | and Human Physiology Lab - Exercise and Metabolism (or HUM BIOL 402) |  |
| Human Biology Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| Human Biology Upper Level Elective |  | 3 |
| Human Biology Upper Level Lab |  | 1-2 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16-17 |
| Spring |  |  |
| Human Biology Upper Level Elective |  | 3 |
| Human Biology Upper Level Lab |  | 1-2 |
| Capstone |  | 1-3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 14-17 |
|  | Total Credits | 118-123 |

## Human Biology Major with Cytotechnology Emphasis

## An example: Four year plan for Human Biology Major with Cytotechnology Emphasis

This is a representative plan. Check with your advisor to see that your plan meets the requirements for this emphasis.
120 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| CHEM 211 <br> \& CHEM 213 | Principles of Chemistry I and Principles of Chemistry I Laboratory | 5 |
| MATH 104 | Precalculus (if needed or First Year Seminar) | 4 |
| WF 105 | Research and Rhetoric | 3 |
|  | Credits | 17 |
| Spring |  |  |
| CHEM 212 <br> \& CHEM 214 | Principles of Chemistry II and Principles of Chemistry II Laboratory | 5 |
| HUM BIOL 240 | Anatomy and Physiology | 4 |
| HUM BIOL 241 | Anatomy and Physiology Lab | 1 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 303 <br> or HUM BIOL 310 | Genetics or Human Genetics | 3 |
| ENGLISH 104 | Introduction to Literature | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 12 |
| Spring |  |  |
| NUT SCI 300 | Human Nutrition | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| HUM BIOL 402 | Human Physiology | 3 |
| Human Biology Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| Human Biology Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| Cytotechnology Internship |  | 15 |
|  | Credits | 15 |
| Spring |  |  |
| Cytotechnology Internship |  | 15 |
|  | Credits | 15 |
|  | Total Credits | 121 |

## Human Resource Management

(Bachelor of Business Administration)

The Human Resource Management major at UW-Green Bay's Cofrin School of Business offers both the General Emphasis and the SHRM-CP Professional Certification Emphasis.

1. General Emphasis:

- This emphasis provides a comprehensive understanding of human resource management principles and practices.
- Students in this track learn the strategic importance of HRM and how it creates value for the organization through all of the major HRM functions: recruitment and selection, employee development, performance management, and compensation and benefits.
- Through courses in employment law and employee relations, students study the complex nature of the employer-employee relationship and develop the knowledge and skills necessary to identify and address the legal, business, and ethical implications of managing people.
- The curriculum is designed to equip students with a broad understanding of people management, business fundamentals, and specialized HRM knowledge.
- Emphasis is placed on developing critical thinking, interpersonal, and evidence-based management skills essential for success in HRM roles.
- The emphasis includes general education courses, introductory-level business courses, HRM-focused upper-level courses, and a capstone course.

2. SHRM-CP Professional Certification Emphasis:

- This emphasis is tailored for students interested in pursuing the Society for Human Resource Management Certified Professional (SHRM-CP).
- In addition to covering the same substantive content as the General Emphasis, this track places specific emphasis on preparing students to take the SHRM-CP exam.
- The capstone experience in this emphasis comprises study of the SHRM Body of Applied Skills and Knowledge through the SHRM Learning System and culminates in students taking the SHRM-CP exam.
- Similar to the General Emphasis, students in this track must meet the same GPA requirements and complete the same core curriculum, with additional focus on exam preparation.

Overall, while both emphases are SHRM Academically Aligned and provide a solid foundation in HRM principles, the SHRM-CP Professional Certification Emphasis offers specialized preparation for those seeking certification.

## Entrance and Exit Requirements

Students can add a HRM major at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of the SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression. All students must meet this exit requirement to graduate. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average.

## Major Area of Emphasis (p. 244)

Students must complete requirements in one of the following areas of emphasis: (p. 244)

- General (p. 244)
- Professional Certification (p. 244)


## Minor

| Code | Title |
| :--- | :--- |
| Required courses: |  |
| HRM 262 | Introduction to Human Resource Management |
| HRM 465 | Recruitment and Selection |
| HRM 466 | Employment Law |
| HRM 468 | Employee Relations |
| Elective courses (Choose six credits): |  |
| COMM 335 | Organizational Communication |
| COMM 336 | Theories of the Interview |
| HRM 460 | Employee Development and Training |
| HRM 467 | Compensation and Benefits Planning |
| HRM 469 | Performance Management and Analytics |
| PSYCH 330 | Social Psychology |
| PSYCH 415 | Industrial and Organizational Psychology |
| PUB ADM 315 | Public and Non-Profit Management |
| PUB ADM 345 | Human Resource and Risk Management |

$\left.\begin{array}{ll}\text { HRM } 470 & \begin{array}{l}\text { SHRM-CP Prep I } \\ \text { \& HRM 471 }\end{array} \\ \hline \text { and SHRM-CP Prep II }\end{array}\right]$

Total Credits

## Faculty

Vallari Chandna; Professor; Ph.D., University of North Texas, chair
Allen Huffcutt; Professor; Ph.D., Texas AM University
Sampath Kumar; Professor; Ph.D., University of Memphis*
Heather Clarke; Associate Professor; Ph.D., Memorial University
David J Radosevich; Associate Professor; Ph.D., University at Albany, State University of New York*
Md Tarique Newaz; Assistant Professor; Ph.D., Texas Tech University
Aniruddha Pangarkar; Assistant Professor; Ph.D., Texas Tech University
Susan Craver; Assistant Teaching Professor; M.B.A., University of Wisconsin - Madison
Anup Nair; Assistant Teaching Professor; M.B.A., Birla Institute of Technology and Science (India)
Dylan Polkinghorne; Assistant Teaching Professor; M.S., University of Wisconsin - Green Bay

## Human Resource Management Major

## Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- General
- Professional Certification


## General

| Code | Title |
| :--- | :--- |
| Supporting Courses | Principles of Financial Accounting |
| ACCTG 201 | Principles of Managerial Accounting |
| ACCTG 202 | Principles of Sustainability in Business |
| BUS ADM 201 | Introduction to Business |
| BUS ADM 202 | Spreadsheet and Information Systems |
| BUSAN 230 | Introduction to Entrepreneurship |
| ENTRP 272 | Introduction to Human Resource Management |
| HRM 262 | Business Ethics |
| PHILOS 227 | Principles of Supply Chain Management |
| SCM 200 | Macro Economic Analysis |
| Economics (choose one combination): |  |
| ECON 202 | and Micro Economic Analysis |
| \& ECON 203 | Economics WTCS Bridge |
| ECON 208 | and WTCS Transfer Credit |
| \& ECON 209 |  |
| Statistics (choose one) | Introduction to Business Statistics |
| BUSAN 220 | Introductory Statistics |
| or MATH 260 |  |
| Upper-Level Courses | Legal Environment of Business |
| Foundational Courses | Corporation Finance |
| BUS ADM 305 | Organizational Behavior |
| FIN 343 |  |
| MGMT 389 |  |


| MKTG 322 | Principles of Marketing |
| :--- | :--- |
| SCM 380 | Project Management |
| Human Resource Management Required Courses |  |
| HRM 460 | Employee Development and Training |
| HRM 465 | Recruitment and Selection |
| HRM 466 | Employment Law |
| HRM 467 | Compensation and Benefits Planning |
| HRM 468 | Employee Relations |
| HRM 469 | Performance Management and Analytics |
| Capstone Experience |  |
| MGMT 482 |  |
| Total Credits |  |

## Professional Certification

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses: |  | 36-37 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ACCTG 202 | Principles of Managerial Accounting |  |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| BUS ADM 130 | Spreadsheet and Information Systems |  |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| HRM 262 | Introduction to Human Resource Management |  |
| PHILOS 227 | Business Ethics |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Economics (choose one combination): |  |  |
| $\begin{aligned} & \text { ECON } 202 \\ & \text { \& ECON } 203 \end{aligned}$ | Macro Economic Analysis and Micro Economic Analysis |  |
| ECON 208 \& ECON 209 | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics (choose one): |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Courses |  | 36 |
| Foundational Courses: |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| SCM 380 | Project Management |  |
| Human Resource Management Required Courses: |  |  |
| HRM 466 | Employment Law |  |
| HRM 468 | Employee Relations |  |
| Human Resource Management Electives (choose three courses): |  |  |
| HRM 460 | Employee Development and Training |  |
| HRM 465 | Recruitment and Selection |  |
| HRM 467 | Compensation and Benefits Planning |  |
| HRM 469 | Performance Management and Analytics |  |
| Capstone Experience: |  |  |
| HRM 470 | SHRM-CP Prep I |  |

We encourage students to advance their HR careers by registering for the Society for Human Resource Management Certified Professional (SHRMCP) Exam upon completion of HRM 471. Please be advised that students are solely responsible for the SHRM-CP registration process and paying the SHRM-CP exam fee.

## Humanities

## (Bachelor of Arts)

The Humanities is designed to help students develop a greater understanding of what it means to be human through the study of history, literature, philosophy, religion, languages, world cultures and civilizations. The Humanities program explores some of the central questions in life, such as the meaning of beauty, justice, and the "good life," as well as the importance of language, culture and artistic expression.

The Humanities comprise those fields that study human creations of all sorts, including literary studies, creative writing, linguistics, history, ancient and modern languages, cultural studies and philosophy.

The Humanities Major offers three areas of emphasis:

- The Ancient and Medieval Studies emphasis. In this track students will study the cultures and civilizations of the ancient and medieval worlds through courses in history, literature and philosophy as well as through interdisciplinary courses.
- The Digital and Public Humanities emphasis. In this track students will engage in an interdisciplinary study of the humanities with an emphasis on how we think about, and through, digital and public spaces. Students will use their training in the humanities to create digital and public humanities projects that further the public's knowledge of culture, society, and history.
- The World Cultures emphasis. This track leverages the power of the humanities to broaden and deepen students' insight into the human condition through the study of other cultural perspectives with the aim of creating better informed, more empathetic and culturally proficient graduates, able to engage intelligently in world cultures and issues

The Humanities Minor offers seven areas of emphasis:

- One area emphasizes World Cultures.
- Another area emphasizes Ancient and Medieval Studies.
- Another area emphasizes the Environmental Humanities.
- Another area emphasizes Film and Cinema Studies.
- Another area emphasizes Humanities Online.
- Another area emphasizes Linguistics / Teaching English as a Second Language.
- Another area emphasizes Religious Studies.

While the factual content of Humanities courses ranges widely in subject matter, all courses emphasize a distinct set of broadly useful skills. Among these are the ability to express one's ideas in a clear, organized, well-reasoned, and grammatically correct manner in speech, writing, and new media; to think critically and analyze texts; to make arguments and present them effectively; to understand context (how history and culture shape us); to recognize and appreciate nuance and complexity of meaning; and to understand and appreciate cultural diversity.

Designed to provide a broader understanding of interdisciplinary contexts, a major or minor in the Humanities complements other courses of study. Besides being a natural accompaniment to majors or minors in History, Philosophy, English, French, German or Spanish, as well as First Nations Studies, Art and Design, Theatre, and Women's and Gender Studies, a degree in Humanities also enhances majors and minors in business, education, social work, the social sciences and the natural sciences.

In conjunction with other courses of study, a Humanities major or minor is an excellent preparation for many graduate programs in the humanities and in law, medicine or engineering. The general intellectual skills emphasized in Humanities courses and the flexibility and versatility they impart help graduates succeed in today's rapidly changing, increasingly global job market, where specific factual knowledge can quickly become outdated. The two of the most common career paths of Humanities majors are in the fields of education and business, but the skills acquired by Humanities students are applicable to nearly any career.

Students may also study abroad at other campuses across the globe and in the United States through UW-Green Bay's participation in international exchange programs and the National Student Exchange. A wide selection of internships in the humanities and travel courses led by Humanities are another great option for obtaining academic credits and completing requirements.

## Major Area of Emphasis (p. 249)

Students must complete one of the following areas of emphasis: (p. 249)

- Ancient and Medieval Studies (p. 249)
- Digital and Public Humanities (p. 249)
- World Cultures (p. 249)


## Language Requirement

All Humanities majors are expected to fulfill the non-English language requirement by completing one of the following:

- Complete at least two college-level semesters of a non-English language. Students who have taken French, German or Spanish in high school or who have acquired a knowledge of the language elsewhere may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of "C" or better.
- Demonstrate the equivalent level of proficiency in a non-English language on a proficiency exam. NOTE: Students seeking to fulfill the language requirement through proficiency testing in French, German, or Spanish should contact the appropriate language coordinator. For skill assessment in other languages, students should contact the chair of Modern Languages.


## Minor Areas of Emphasis (p. 254)

Students must complete one of the following areas of emphasis: (p. 254)

- Ancient and Medieval Studies (p. 254)
- Environmental Humanities (p. 254)
- Film and Cinema Studies (p. 254)
- Humanities Online (p. 254)
- Linguistics/Teaching English as a Second Language (p. 254)
- Religious Studies (p. 254)
- World Cultures (p. 254)


## Curriculum Guide

An example: Four year plan for Humanities Major with an Emphasis in Ancient and Medieval Studies 120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HISTORY 101 or HISTORY 103 | Foundations of Western Culture I or World Civilizations I | 3 |
| WF 105 | Research and Rhetoric | 3 |
| HUM STUD 2XX Ancient and Medieval Languages or Modern Language |  | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| HISTORY 102 or HISTORY 104 | Foundations of Western Culture II or World Civilizations II | 3 |
| HUM STUD 2XX Ancient and Medieval Languages or Modern Language |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| HUM STUD 334 | The Ancient World (or Ancient/Medieval Elective) | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| HUM STUD 335 | The Medieval World (or Ancient/Medieval Elective) | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |


| General Ed |  | 3 |
| :---: | :---: | :---: |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| ENGLISH 335 | Literary Eras (Ancient and/or Medieval Content or Ancient/Medieval Elective) | 3 |
| PHILOS 401 | Plato and Aristotle (or Ancient/Medieval Ancient History Course) | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGLISH 333 | Literary Themes (Ancient and/or Medieval Content or Ancient/Medieval Elective) | 3 |
| HUM STUD 326 or PHILOS 309 | Non-Western Religions (or Ancient/Medieval Elective) or Religion and Medieval Philosophy | 3 |
| Medieval History Course |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| HUM STUD 480 | Humanities Seminar | 3 |
| Ancient/Medieval Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| Ancient/Medieval Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 120 |

## Faculty

Kevin M Kain; Teaching Professor; Ph.D., Western Michigan University
David N Coury; Professor; Ph.D., University of Cincinnati
Jennifer Ham; Professor; Ph.D., Rutgers University, chair
Derek S Jeffreys; Professor; Ph.D., University of Chicago
Mark Karau; Professor; Ph.D., Florida State University
Hye-Kyung Kim; Professor; Ph.D., Marquette University
Rebecca A Meacham; Professor; Ph.D., University of Cincinnati
Rebecca L Nesvet; Professor; Ph.D., University of North Carolina - Chapel Hill
Cristina M Ortiz; Professor; Ph.D., University of Cincinnati
Charles A Rybak; Professor; Ph.D., University of Cincinnati
David J Voelker; Professor; Ph.D., University of North Carolina at Chapel Hill
Jennifer Young; Professor; Ph.D., Case Western Reserve University
Hernan Fernandez-Meardi; Associate Professor; Ph.D., Universite de Montreal (Canada)
Clifton G Ganyard; Associate Professor; Ph.D., State University of New York at Buffalo

Daniel Kallgren; Associate Professor; Ph.D., University of Minnesota - Twin Cities
John P Leary; Associate Professor; Ph.D., University of Wisconsin - Madison*
James Vincent Lowery; Associate Professor; Ph.D., University of Mississippi
Ann Mattis; Associate Professor; Ph.D., Loyola University
Valerie Murrenus-Pilmaier; Associate Professor; Ph.D., Marquette University
Lisa M Poupart; Associate Professor; Ph.D., Arizona State University*
Heidi M Sherman; Associate Professor; Ph.D., University of Minnesota
Julialicia Case; Assistant Professor; Ph.D., University of Cincinnati
Jonas Gardsby; Assistant Professor; Ph.D.
Kristopher Purzycki; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee
Christopher Williams; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee
Roshelle Amundson; Associate Teaching Professor; M.F.A., Goddard College
Forrest W Brooks; Associate Teaching Professor; M.S., University of Wisconsin - Milwaukee*
Jennifer Lynn Ronsman; Associate Teaching Professor; M.F.A., Minnesota State University
Linda M Toonen; Associate Teaching Professor; M.A., University of Wisconsin - Whitewater
Erica Wiest; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Humanities Major

## Language Requirement

All Humanities majors are expected to fulfill the non-English language requirement by completing one of the following:

- Complete at least two college-level semesters of a non-English language. Students who have taken French, German or Spanish in high school or who have acquired a knowledge of the language elsewhere may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of "C" or better.
- Demonstrate the equivalent level of proficiency in a non-English language on a proficiency exam. NOTE: Students seeking to fulfill the language requirement through proficiency testing in French, German, or Spanish should contact the appropriate language coordinator. For skill assessment in other languages, students should contact the chair of Modern Languages.


## Area of Emphasis

Students must complete one of the following areas of emphasis:

- Ancient and Medieval Studies
- Digital and Public Humanities
- World Cultures


## Ancient and Medieval Studies

## Language Requirement

All Humanities majors are expected to fulfill the non-English language requirement by completing one of the following:

- Complete at least two college-level semesters of a non-English language. Students who have taken French, German or Spanish in high school or who have acquired a knowledge of the language elsewhere may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of "C" or better.
- Demonstrate the equivalent level of proficiency in a non-English language on a proficiency exam. NOTE: Students seeking to fulfill the language requirement through proficiency testing in French, German, or Spanish should contact the appropriate language coordinator. For skill assessment in other languages, students should contact the chair of Modern Languages

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| Choose one of the following courses: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 103 | World Civilizations I |  |
| Choose one course from the following category: |  |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 104 | World Civilizations II |  |
| Choose one course from the following category: |  |  |
| ART 102 | History of the Visual Arts: Ancient to Medieval |  |
| ENGLISH 214 | Introduction to English Literature I |  |
| Upper-Level Courses |  | 24 |
| Perspectives of Human Values (choose one course from the following category) |  |  |
| HUM STUD 334 | The Ancient World |  |
| HUM STUD 335 | The Medieval World |  |
| HUM STUD 336 | The Renaissance |  |
| Ancient and Medieval Religion and Philosophy (choose one course from the following category): |  |  |
| HUM STUD 326 | Non-Western Religions |  |
| PHILOS 309 | Religion and Medieval Philosophy |  |
| PHILOS 351 | Happiness and the Good Life |  |
| PHILOS 401 | Plato and Aristotle |  |
| PHILOS 403 | Topics in Philosophy (with ancient or medieval topic) |  |
| Medieval History: |  |  |
| HISTORY 301 | The Middle Ages ${ }^{1}$ |  |
| or HISTORY 421 | Topics in Medieval History |  |
| Medieval/Renaissance Literature: |  |  |
| ENGLISH 333 | Literary Themes (with ancient/medieval/Renaissance topic for either course) |  |
| or ENGLISH 335 | Literary Eras |  |
| Capstone Seminar |  |  |
| HUM STUD 480 | Humanities Seminar |  |
| HUM STUD 497 | Internship (with permission of Humanities Program Chair) |  |
| HUM STUD 499 | Travel Course (with permission of Humanities Program Chair) |  |
| Or ENG, FRE, GERM, SPAN, HIS, PHI 499 (with permission from Humanities Program Chair) |  |  |
| Choose 9 credits of | ses ${ }^{2}$ |  |

Total Credits

1 Or other upper-level History course with medieval content
2 These might include variable content courses with appropriate ancient or medieval topics such as HUM STUD 350 and HUM STUD 351, or offerings from other Humanities and/or its departments.

## Digital and Public Humanities

## Language Requirement

All Humanistic Studies majors are expected to fulfill the non-English language requirement by completing one of the following:

- Complete at least two college-level semesters of a non-English language. Students who have taken French, German or Spanish in high school or who have acquired a knowledge of the language elsewhere may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of "C" or better.
- Demonstrate the equivalent level of proficiency in a non-English language on a proficiency exam. NOTE: Students seeking to fulfill the language requirement through proficiency testing in French, German, or Spanish should contact the appropriate language coordinator. For skill assessment in other languages, students should contact the chair of Modern Languages.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses: |  | 9 |
| HUM STUD 100 | Living the Humanities |  |
| HUM STUD 200 | Introduction to Digital and Public Humanities |  |
| Lower-Level Elective (choose one course): ${ }^{1}$ |  |  |
| 100 or 200-level ENGLISH course |  |  |
| 100 or 200-level FNS course |  |  |
| 100 or 200-level HISTORY course |  |  |
| 100 or 200-level PHILOS course |  |  |
| ARTS MGT 257 | Arts in the Community |  |
| Upper-Level Courses: ${ }^{2}$ |  | 24 |
| Community Engagement (choose 6 credits): |  |  |
| ENGLISH 333 | Literary Themes (topic: The Literature of Suffering)) |  |
| ENGLISH 400 | English Capstone |  |
| ENGLISH 497 | Internship |  |
| FNS 497 | Internship |  |
| HISTORY 497 | Internship |  |
| HUM STUD 320 | Language and Identity |  |
| HUM STUD 400 | Humanities Practicum |  |
| HUM STUD 497 | Internship |  |
| PHILOS 497 | Internship |  |
| Project-based Learning (choose 6 credits): |  |  |
| ENGLISH 324 | Sheepshead Review Practicum |  |
| ENGLISH 400 | English Capstone |  |
| ENGLISH 424 | Book Editing Practicum |  |
| GERMAN 425 | German Translation Studies |  |
| HUM STUD 300 | Intermediate Digital and Public Humanities |  |
| HUM STUD 400 | Humanities Practicum |  |
| SPANISH 465 | Special Topics |  |
| Digital or Public Humanities Inflected courses (choose 6 credits): |  |  |
| ENGLISH 324 | Sheepshead Review Practicum |  |
| ENGLISH 333 | Literary Themes (Topic: The Literature of Suffering) |  |
| ENGLISH 400 | English Capstone |  |
| ENGLISH 424 | Book Editing Practicum |  |
| ENGLISH 431 | Shakespeare |  |
| ENGLISH 436 | Major Author(s) (Topic: Toni Morrison) |  |
| ENGLISH 497 | Internship |  |
| FNS 497 | Internship |  |
| HISTORY 301 | The Middle Ages |  |
| HISTORY 302 | Problems in American Thought (Topic: Wilderness) |  |
| HISTORY 421 | Topics in Medieval History |  |
| HISTORY 422 | Topics in Early Modern European History |  |
| HISTORY 470 | Studies in Comparative History (Topic: The French and Haitian Revolutions) |  |
| HISTORY 497 | Internship |  |
| HUM STUD 300 | Intermediate Digital and Public Humanities |  |
| HUM STUD 370 | Sustainability through the Humanities |  |
| HUM STUD 400 | Humanities Practicum |  |
| HUM STUD 497 | Internship |  |
| PHILOS 497 | Internship |  |
| Electives (choose 3 credits): |  |  |
| 300 or 400-level ENGLISH course |  |  |
| 300 or 400 -level GERMAN course |  |  |

300 or 400 -level HISTORY course
300 or 400-level HUM STUD course
300 or 400 -level PHILOS course
300 or 400-level SPANISH course

## Capstone:

HUM STUD 400 Humanities Practicum

1 excluding any First Year Seminar
2 Courses may not be used to fulfill more than one requirement in the major. You may take the Humanities Practicum more than once if the topic is different. Students may have up to two internships.

## World Cultures

## Language Requirement

All Humanities majors are expected to fulfill the non-English language requirement by completing one of the following:

- Complete at least two college-level semesters of a non-English language. Students who have taken French, German or Spanish in high school or who have acquired a knowledge of the language elsewhere may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of " $C$ " or better.
- Demonstrate the equivalent level of proficiency in a non-English language on a proficiency exam. NOTE: Students seeking to fulfill the language requirement through proficiency testing in French, German, or Spanish should contact the appropriate language coordinator. For skill assessment in other languages, students should contact the chair of Modern Languages.

| Code | Title |
| :--- | :--- |
| Supporting Courses <br> Choose one: |  |
| HUM STUD 100 | Living the Humanities |
| HUM STUD 201 | Introduction to the Humanities |
| Choose one: |  |
| ENGLISH 218 | World Literatures |
| ENGLISH 219 | Forld Literatures II |
| HISTORY 101 | Foundations of Western Culture I |
| HISTORY 102 | World Civilizations I |
| HISTORY 103 | World Civilizations II |
| HISTORY 104 | Introduction to Philosophy |
| PHILOS 101 | Ancient Philosophy |
| PHILOS 213 |  |
| Foreign Language Requirement ${ }^{\star}$ |  |
| Choose one: | Women in Literature |
| ENGLISH 206 | Introduction to First Nations Studies |
| FNS 225 | Introduction to African-American History |
| HISTORY 207 | Introduction to Asian Philosophy |
| HUM STUD 213 | Introduction to the Philosophy of Religion |
| PHILOS 216 |  |
| PHILOS 217 |  |

Upper-Level Courses
Category 1: Global Encounters ( 6 credits) (At least one course must be a HUM STUD course)
FNS 372 Indigenous Nations Oral and Storytelling Traditions
FNS 385 First Nations Intellectual Traditions
FRENCH 355 Le Monde Francophone
HISTORY 470 Studies in Comparative History
HUM STUD 383
Contemporary Cultural Issues

| HUM STUD 360 | Globalization and Cultural Conflict |
| :---: | :---: |
| SPANISH 357 | Cultura Latina |
| SPANISH 329 | Representative Spanish and Latin American Authors |
| SPANISH 351 | Major Spanish and Latin American Fiction |
| SPANISH 355 | Spanish and Latin American Cinema |
| Category II: Western Cultures (6 credits) (At least one course must be a HUM STUD course) |  |
| HUM STUD 333 | Utopia and Dystopia |
| HUM STUD 334 | The Ancient World |
| HUM STUD 335 | The Medieval World |
| HUM STUD 336 | The Renaissance |
| HUM STUD 337 | The Age of Reason |
| HUM STUD 350 | Interdisciplinary Study of Great Works (Dante) |
| HUM STUD 351 | Interdisciplinary Themes in Humanities (Western Topic) |
| HUM STUD 356 | German Culture |
| GERMAN 329 | Representative German Authors |
| GERMAN 357 | German Cinema |
| SPANISH 360 | Spain Today |
| SPANISH 361 | The Cultures of Spain |
| FRENCH 329 | Representative French Authors |
| FRENCH 354 | France Today |
| HISTORY 422 | Topics in Early Modern European History (Crime and Mentalities) |
| ENGLISH 344 | African American Literature |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 431 | Shakespeare |
| ENGLISH 322 | Major Poetry |
| Category III: Cultures Outside the West (6 credits) (At least one course must be a HUM STUD course) |  |
| DJS 363 | Topics in Democracy and Justice (South Africa Topic) |
| FNS 385 | First Nations Intellectual Traditions |
| HISTORY 356 | History of Modern Africa |
| HUM STUD 326 | Non-Western Religions |
| HUM STUD 343 | International Cinema |
| HUM STUD 352 | Literatures in Translation |
| HUM STUD 384 | Topics in World Cultures |
| PHILOS 351 | Happiness and the Good Life |
| Humanities in Action Capstone Experience (3 credits) |  |
| HUM STUD 480 | Humanities Seminar |
| HUM STUD 497 | Internship (with advisor permission) |
| HUM STUD 499 | Travel Course |
| or ENGLISH 499 | Travel Course |
| or FRENCH 499 | Travel Course |
| or GERMAN 499 | Travel Course |
| or HISTORY 499 | Travel Course |
| or PHILOS 499 | Travel Course |
| or SPANISH 499 | Travel Course |
| Elective Course (choose 3 credits) ${ }^{1}$ |  |

Total Credits

## Humanities Minors

## Area of Emphasis

Students must complete one of the following areas of emphasis:

- Ancient and Medieval Studies
- Environmental Humanities
- Film and Cinema Studies
- Humanities Online
- Linguistics/Teaching English as a Second Language
- Religious Studies
- World Cultures


## Ancient and Medieval Studies

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| Choose one of the following: |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 103 | World Civilizations I |  |
| Choose one of the following: |  |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 104 | World Civilizations II |  |
| Upper Level Courses (Four courses | from at least two different prefixes) | 12 |
| Choose a minimum of one course with an Ancient topic from the following: |  |  |
| HUM STUD 334 | The Ancient World |  |
| HUM STUD 350 | Interdisciplinary Study of Great Works (with Ancient topic) |  |
| HUM STUD 351 | Interdisciplinary Themes in Humanities (with Ancient topic) |  |
| PHILOS 351 | Happiness and the Good Life |  |
| PHILOS 401 | Plato and Aristotle |  |
| PHILOS 403 | Topics in Philosophy (with Ancient topic) |  |
| ENGLISH 333 | Literary Themes (with Ancient topic) |  |
| ENGLISH 335 | Literary Eras (with Ancient topic) |  |
| Choose a minimum of one course with a Medieval or Renaissance topic from the following: |  |  |
| HUM STUD 335 | The Medieval World |  |
| HUM STUD 336 | The Renaissance |  |
| HUM STUD 350 | Interdisciplinary Study of Great Works (with Medieval or Renaissance topic) |  |
| HUM STUD 351 | Interdisciplinary Themes in Humanities (with Medieval or Renaissance topic) |  |
| HISTORY 301 | The Middle Ages |  |
| HISTORY 421 | Topics in Medieval History |  |
| PHILOS 309 | Religion and Medieval Philosophy |  |
| PHILOS 403 | Topics in Philosophy (with Medieval or Renaissance topic) |  |
| ENGLISH 333 | Literary Themes (with Medieval or Renaissance topic) |  |
| ENGLISH 335 | Literary Eras (with Medieval or Renaissance topic) |  |

## Total Credits

## Environmental Humanities

| Code | Title |
| :--- | :--- |
| Supporting Courses: |  |
| HUM STUD 200 | Introduction to Digital and Public Humanities |
| Choose two courses: |  |
| FNS 224 | First Nations and The Sacred |
| HISTORY 220 | American Environmental History |


| HUM STUD 100 | Living the Humanities (Topic: Humans and Nature) |
| :--- | :--- |
| Choose one: |  |
| PHILOS 101 | Introduction to Philosophy |
| PHILOS 102 | Contemporary Ethical Issues |
| PHILOS 212 | Philosophy, Religion, and Science |
| PHILOS 214 | Early Modern Philosophy |
| PHILOS 216 | Introduction to Asian Philosophy |
| PHILOS 220 | Environmental Ethics |
| Upper-Level Courses |  |
| Choose four of the following courses: |  |
| ENGLISH 333 | Literary Themes (Topic: Environmental Literature) |
| FNS 360 | Women and Gender in First Nations Communities |
| HISTORY 302 | Problems in American Thought (Topic: Wilderness) |
| HISTORY 326 | Global Environmental History |
| HUM STUD 300 | Intermediate Digital and Public Humanities |
| HUM STUD 370 | Sustainability through the Humanities |
| PHILOS 308 | Philosophy and the Sciences |
| PSYCH 380 | Conservation Psychology |
| PUB ADM 301 | Environmental Politics and Policy |
| Total Credits | $\mathbf{2 4}$ |

## Film and Cinema Studies

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| Choose 4 courses: |  |
| ARTS MGT 257 | Arts in the Community |
| FNS 210 | American Indians In Film |
| HUM STUD 110 | Film and Society |
| HUM STUD 210 | Acting I |
| THEATRE 131 | Acting II |
| THEATRE 231 |  |
| Upper-Level Courses | Indigenous Nations Oral and Storytelling Traditions |
| Choose 6 credits: | German Cinema |
| FNS 372 | International Cinema |
| GERMAN 357 | Topics in World Cultures (with film related topic) |
| HUM STUD 343 | Spanish and Latin American Cinema |
| HUM STUD 384 |  |
| SPANISH 355 | Video Production |
| Choose 9 credits: | Advanced Studio |
| COMM 307 | Internship (Approved Film Studies related internship) |
| DESIGN 433 | Topics in Creative Writing |
| DESIGN 497 | Internship (Approved Film Studies related internship) |
| ENGLISH 312 | Directing I |
| HUM STUD 497 | Internship (Approved Film Studies related internship) |
| THEATRE 351 |  |

## Total Credits

## Humanities Online

Code Title ..... Credits
Supporting Courses ..... 9
Literature (Choose one course):

| ENGLISH 104 | Introduction to Literature |  |
| :---: | :---: | :---: |
| ENGLISH 206 | Women in Literature |  |
| ENGLISH 212 | Introduction to Creative Writing |  |
| ENGLISH 217 | Introduction to American Literature II |  |
| ENGLISH 218 | World Literatures |  |
| ENGLISH 236 | Multicultural American Literature |  |
| History (choose one course): |  |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| HISTORY 207 | Introduction to African-American History |  |
| Cultures, Ethics, Values (choose | one course): |  |
| FNS 225 | Introduction to First Nations Studies |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| HUM STUD 201 | Introduction to the Humanities |  |
| PHILOS 102 | Contemporary Ethical Issues |  |
| PHILOS 103 | Logic and Reasoning |  |
| PHILOS 227 | Business Ethics |  |
| SPANISH 102 | Introduction to the Spanish Language II |  |
| SPANISH 201 | Intermediate Spanish Language I |  |
| SPANISH 202 | Intermediate Spanish Language II |  |
| Upper-Level Courses (Choose four | courses): | 12 |
| ENGLISH 312 | Topics in Creative Writing |  |
| ENGLISH 333 | Literary Themes |  |
| ENGLISH 335 | Literary Eras |  |
| ENGLISH 344 | African American Literature |  |
| ENGLISH 345 | LGBTQ Literature |  |
| ENGLISH 431 | Shakespeare |  |
| ENGLISH 436 | Major Author(s) |  |
| HISTORY 450 | War and Civilization |  |
| HUM STUD 321 | Sociolinguistics |  |
| HUM STUD 360 | Globalization and Cultural Conflict |  |
| HUM STUD 375 | Humanities, Business and Critical Thinking |  |
| HUM STUD 384 | Topics in World Cultures |  |
| PHILOS 351 | Happiness and the Good Life |  |
| SPANISH 329 | Representative Spanish and Latin American Authors |  |

Total Credits

## Linguistincs/Teaching English as a Second Language

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| HUM STUD 160 | Introduction to Language |  |
| One year of a non-English language or equivalent proficiency |  |  |
| Upper-Level Courses |  | 12 |
| EDUC 315/515 | Teaching English as a Second Language ${ }^{2}$ |  |
| HUM STUD 319/519 | Second Language Acquisition \& Assessment ${ }^{2}$ |  |
| HUM STUD 320/520 | Language and Identity ${ }^{2}$ |  |
| HUM STUD 321/521 | Sociolinguistics ${ }^{2}$ |  |

## Requirement for licensure candidates

| Cross-Cultural Elective (choose $\mathbf{3}$ credits): ${ }^{1}$ |  |
| :--- | :--- |
| FNS 301 | Oneida Language I |
| FRENCH 497 | Internship |
| GERMAN 497 | Internship |
| HUM STUD 497 | Internship |
| HUM STUD 499 | Travel Course |
| SPANISH 497 | Internship |
| Requirement for non-licensure candidates |  |
| HUM STUD 497 | Internship |

## Total Credits

1 Another appropriate course or study abroad/internship experience may be substituted by adviser.
2 Undergraduate students must be granted permission to enroll in graduate coursework. For more information, refer to the graduate catalog. (http:// catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/)

## Religious Studies

| Code | Title |
| :--- | :--- |
| Lower-Level Requirements |  |
| PHILOS 217 | Introduction to the Philosophy of Religion |
| Choose one elective: | First Nations and The Sacred * |
| FNS 224 | Philosophy, Religion, and Science |
| PHILOS 212 | Ancient Philosophy |
| PHILOS 213 | Introduction to Asian Philosophy * |
| PHILOS 216 |  |
| Upper-Level Requirements | Literary Themes |
| Choose four electives: | The Rise of Islamic Civilization to 1800 * |
| ENGLISH 333 | Non-Western Religions |
| HISTORY 337 | Interdisciplinary Themes in Humanities |
| HUM STUD 326 | Topics in World Cultures (Topic: Contemporary Middle East in Lit and Film) |
| HUM STUD 351 | Religion and Medieval Philosophy |
| HUM STUD 384 |  |

Total Credits

* World religion criteria: One (1) elective must be a world religion course, marked by the asterisk(*)


## World Cultures

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| Choose one: |  |
| HUM STUD 100 | Living the Humanities |
| HUM STUD 201 | Introduction to the Humanities |
| Choose one: |  |
| ENGLISH 218 | World Literatures |
| ENGLISH 219 | World Literatures II |
| HISTORY 101 | Foundations of Western Culture I |
| HISTORY 102 | World Civilizations I |
| HISTORY 103 | World Civilizations II |
| HISTORY 104 | Introduction to Philosophy |
| PHILOS 101 | Ancient Philosophy |
| PHILOS 213 |  |
| Choose one: |  |


| ENGLISH 206 | Women in Literature |  |
| :---: | :---: | :---: |
| FNS 225 | Introduction to First Nations Studies |  |
| HISTORY 207 | Introduction to African-American History |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| PHILOS 216 | Introduction to Asian Philosophy |  |
| PHILOS 217 | Introduction to the Philosophy of Religion |  |
| Upper-Level Courses (At least one course must be a HUM STUD course) |  | 12 |
| Category 1: Global Encounters (3 credits): |  |  |
| ENGLISH 338 | World Literatures |  |
| FNS 372 | Indigenous Nations Oral and Storytelling Traditions |  |
| FNS 385 | First Nations Intellectual Traditions |  |
| FRENCH 355 | Le Monde Francophone |  |
| HISTORY 470 | Studies in Comparative History |  |
| HUM STUD 383 | Contemporary Cultural Issues |  |
| HUM STUD 360 | Globalization and Cultural Conflict |  |
| SPANISH 357 | Cultura Latina |  |
| SPANISH 329 | Representative Spanish and Latin American Authors |  |
| SPANISH 351 | Major Spanish and Latin American Fiction |  |
| SPANISH 355 | Spanish and Latin American Cinema |  |
| Category II: Western Cultures (3 credits): |  |  |
| HUM STUD 333 | Utopia and Dystopia |  |
| HUM STUD 334 | The Ancient World |  |
| HUM STUD 335 | The Medieval World |  |
| HUM STUD 336 | The Renaissance |  |
| HUM STUD 337 | The Age of Reason |  |
| HUM STUD 350 | Interdisciplinary Study of Great Works (Dante) |  |
| HUM STUD 351 | Interdisciplinary Themes in Humanities (Western Topic) |  |
| HUM STUD 356 | German Culture |  |
| GERMAN 329 | Representative German Authors |  |
| GERMAN 357 | German Cinema |  |
| SPANISH 360 | Spain Today |  |
| SPANISH 361 | The Cultures of Spain |  |
| FRENCH 329 | Representative French Authors |  |
| FRENCH 354 | France Today |  |
| HISTORY 422 | Topics in Early Modern European History (Crime \& Mentalities Topic) |  |
| ENGLISH 344 | African American Literature |  |
| ENGLISH 431 | Shakespeare |  |
| ENGLISH 331 | Major American Prose Fiction |  |
| ENGLISH 322 | Major Poetry |  |
| Category III: Cultures Outside the West (3 credits): |  |  |
| DJS 363 | Topics in Democracy and Justice (South Africa Topic) |  |
| FNS 385 | First Nations Intellectual Traditions |  |
| HISTORY 356 | History of Modern Africa |  |
| HUM STUD 384 | Topics in World Cultures |  |
| HUM STUD 326 | Non-Western Religions |  |
| HUM STUD 343 | International Cinema |  |
| HUM STUD 352 | Literatures in Translation |  |
| PHILOS 351 | Happiness and the Good Life |  |
| Elective Course (choose 3 credits): |  |  |
| Choose any course listed above that does not fulfill another requirement OR |  |  |
| HUM STUD 497 | Internship (with advisor permission) |  |
| HUM STUD 499 | Travel Course |  |


| or ENGLISH 499 | Travel Course |
| :--- | :--- |
| or FRENCH 499 | Travel Course |
| or GERMAN 499 | Travel Course |
| or HISTORY 499 | Travel Course |
| or PHILOS 499 | Travel Course |
| or SPANISH 499 | Travel Course |

## Total Credits

## Individual Major

(Bachelor of Arts or Bachelor of Science)
An Individual Major is a self-designed program for students who find that their educational objectives cannot adequately be met by any of the University's existing majors. The Individual Major allows students to incorporate courses from several academic areas into a unique program of study intended to prepare them for employment or graduate study in a specific field of interest. In keeping with the interdisciplinary mission of the University, all Individual Majors are strongly encouraged to incorporate courses from several academic areas offered at UW-Green Bay.

To develop an Individual Major, students must meet with a faculty adviser and the Associate Provost to discuss their educational and career objectives. Students write a proposal which includes a statement of objectives, a list of proposed courses for the major, intended degree, and a rationale explaining how those courses form a coherent program of study. The proposal must be approved by the Associate Dean and faculty adviser before being submitted to the Individualized Learning Committee for final approval. Students completing an Individual Major must complete all University requirements for a degree, including general education, residency, and English and mathematics proficiency. It is highly recommended that students who wish to pursue this course of study have a cumulative GPA of 3.5 or above.

The minimum requirements for an Individual Major include 30 credits of upper-level credits focused on an area, and an appropriate array of supporting courses. Students should submit the proposal to the Associate Provost no later than the beginning of their junior year to ensure timely graduation.

Additional information and assistance in planning an Individual Major is available from the Office of the Provost (shermanc@uwgb.edu).

## Individual Major

An Individual Major is a self-designed program for students who find that their educational objectives cannot adequately be met by any of the University's existing majors. The Individual Major allows students to incorporate courses from several academic areas into a unique program of study intended to prepare them for employment or graduate study in a specific field of interest. In keeping with the interdisciplinary mission of the University, all Individual Majors must consist of coherent programs of study that are interdisciplinary in nature.

The Individual Major must also conform to all of the University's requirements for graduation and be approved by

- The Associate Provost
- At least one faculty advisor selected by the student
- The Individualized Learning Committee

It is highly recommended that students interested in an Individual Major have a cumulative GPA of 3.5 or above. All the necessary approvals for an Individual Major must be completed no later than the end of your junior year.

## Eight steps to developing an Individual Major

1. Identify your interests and research your career objectives and educational needs
a. Discuss your career plans with others (faculty, family, professional contacts).
b. Use the Internet and other resources to find additional information.
2. Discuss your plans with potential faculty advisors and then with the Associate Provost.
a. Contact a member of the faculty who is knowledgeable in the area of your Individual Major. The faculty member also should be willing to guide your studies and to recommend approval of your program.
b. After choosing your faculty advisor, discuss your plans with the Associate Provost. Students should bring the proposal to the Associate Provost the beginning of their junior year to ensure timely graduation.
3. Prepare your Individual Major proposal.
a. Work with your faculty advisor to prepare a proposal three to five pages typed, double-spaced. The proposal should describe and explain why and/or how an Individual Major will allow you to achieve your objectives.
4. Proposals should include the following:
a. Title (which will appear on your transcript)
b. Personal background: relevant experience and interests
c. Career goals
d. Explanation of why you want an Individual Major
e. Description of how the courses represent a cohesive program of study
f. Explanation of why the proposed Individual Major is unique from an existing major, a double major or a major/minor on campus o Examples of similar programs at other institutions
g. Timetable for completion
h. Post-graduate plans
5. List all courses you propose to complete for your Individual Major.
a. Divide your list into lower-level and upper-level courses. In creating the list, you should consult not only with your faculty advisor, but also with faculty teaching in programs in which you will be taking courses.
b. List the course number, credits and title, and anticipated completion date as shown in the example below. ${ }^{1}$
6. Your list must contain at least 30 upper-level credits organized around an interdisciplinary theme. Keep in mind the Individual Major is an interdisciplinary program; your courses must come from at least two different academic areas/fields of study.
7. Get a letter of support from your faculty advisor.
a. If the draft proposal and the list of courses are acceptable to the faculty advisor(s), request a letter of support from the advisor(s) to include with the proposal. Letters should indicate that the faculty advisor is confident that you will be able to manage the major and that he or she is willing to serve as an advisor.
8. Discuss your proposal with the Associate Provost.
a. The Associate Provost will review your proposed program of study to assure it is clearly written, fulfills all University requirements, reflects the University emphasis on interdisciplinary study, and can be completed in a timely manner.
9. Submit your final proposal to the Associate Provost. The Associate Provost will schedule a meeting with the Individualized Learning Committee. The completed proposal should contain:
a. Your narrative
b. The list of courses and timeline for completing the Individual Major
c. An unofficial copy of your transcript
d. A letter or letters from the faculty member(s) who will be your advisor(s)

The Individualized Learning Committee will review your proposal and will:

- Approve the proposal;
- Request revision and resubmission of the proposal; or
- Deny the proposal

The Chair will notify you of the Committee's decision.

## Examples of completed Individual Major Programs:

- Sports Management
- Women's Health Issues
- Nutrition Ecology
- Environmental Health Management
- Cross Cultural Health Studies

1 Courses, credits, and titles When completed Where taken

| PSYCH $102(3 \mathrm{cr})$ Psychology | Enrolled | UW-Green Bay |
| :--- | :---: | ---: |
| HUM STUD 201 (3 cr) Humanities | Spring '16 | UW-Green Bay |
| ART 105 (3 cr) Drawing | Fall '17 | UW-Oshkosh |

## Faculty

Courtney J Sherman; Associate Professor; D.M.A., Arizona State University

## Information Technology and Data Science

## (Bachelor of Science)

The Information Science (IS) program introduces students to complex information problems topics faced in the knowledge economy. Students will learn essential qualitative and quantitative skills demanded by employers in a digital media environment. Beyond these essential practical skills, students are taught the interpersonal and managerial skills needed to collaborate and coordinate among external stakeholders to achieve a common goal.

Internships in Information Science provide qualified students with opportunities for faculty-supervised experience in professional settings outside the classroom. A major in Information Science provides the kind of integrative knowledge that is required for professional careers in a new and emerging media environment.

There are three emphases for the major: Data Science, Game Studies, and Information Technology.

- The Data Science emphasis is focused on data tools and analytical methods. Students learn to interpret and communicate their findings through courses from the social sciences, computer science, statistics and management. In data science students are trained for deep analytical talent positions in areas such as healthcare, logistics, and insurance industries.
- The Game Studies emphasis offers a diverse range of sub-disciplines to develop students into well-rounded game professionals. Students can choose from classes in computer science, communication, psychology, art, business, and music to prepare for careers in game journalism, game studies, game ethics, programming and design.
- The Information Technology emphasis offers a solid grounding in computing, mathematics, and communication skills and then builds on that grounding with a broad array of theoretical and applied approaches to information technologies. Students also are expected to be thoroughly equipped with problem solving, collaborative, and presentational skills to prepare for careers in areas such as, systems analysis, human resources, marketing and sales.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Major Area of Emphasis (p. 262)

Students must complete requirements in one of the following areas of emphasis:

- Data Science
- Game Studies
- Information Technology


## Curriculum Guide

The following is only an example of a four-year Information Sciences degree program and is subject to change without notice. Students should consult a Information Sciences program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Information Sciences Major (Data Science emphasis)
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| COMM 133 | Fundamentals of Public Address | 3 |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMM 205 | Elements of Media | 3 |
| COMP SCI 256 | Introduction to Software Design | 3 |
| INFO SCI 302 | Introduction to Data Science | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| COMM 290 | Communication Problems and Research Methods | 3 |
| COMP SCI 221 | Database Design \& Management | 3 |
| COMP SCI 231 | Introduction to IT Operations | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |


| Spring |  |  |
| :---: | :---: | :---: |
| COMM 308 | Information and Communication Technologies | 3 |
| COMP SCI 240 | Discrete Mathematics | 3 |
| MATH 260 | Introductory Statistics | 4 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| COMP SCI 361 | Information Assurance and Security | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| INFO SCI 410 | Analytics and Information Problems | 3 |
| INFO SCI 411 | Statistical Techniques and Decision Modeling | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| INFO SCl 412 | Data Mining and Predictive Analytics | 3 |
| COMM, COMP SCI, or INFO SCI course |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| COMP SCI 451 | Database Systems and Big Data Processing | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Capstone |  | 2 |
| Elective |  | 3 |
|  | Credits | 14 |
|  | Total Credits | 120 |

## Faculty

Bryan James Carr; Professor; Ph.D., University of Oklahoma

Phillip G Clampitt; Professor; Ph.D., University of Kansas, chair
Katie Turkiewicz; Associate Professor; Ph.D., University of Wisconsin - Milwaukee
Prakash Duraisamy; Assistant Professor; Ph.D., University of North Texas
Justin Kavlie; Assistant Professor; Ph.D., University of North Carolina

Joseph Yoo; Assistant Professor; Ph.D., University of Texas

Mary D Bina; Associate Teaching Professor; B.F.A., University of Wisconsin - Milwaukee
Shauna M Froelich; Associate Teaching Professor; JD, Marquette University

## Information Technology and Data Science Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Data Science
- Game Studies
- Information Technology


## Data Science

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |
| COMP SCI 221 | Database Design \& Management |
| COMP SCI 231 | Introduction to IT Operations |
| COMP SCI 256 | Introduction to Software Design |
| COMM 133 | Fundamentals of Public Address |
| or COMM 237 | Small Group Communication |
| COMM 290 | Communication Problems and Research Methods |
| MATH 260 | Introductory Statistics |
| Upper-level Courses | Information and Communication Technologies |
| COMM 308 | Advanced Software Design |
| COMP SCI 316 | Data Communication and Computer Networks |
| COMP SCI 358 | Database Systems and Big Data Processing |
| INFO SCI 302 | Introduction to Data Science |
| INFO SCI 410 | Analytics and Information Problems |
| INFO SCI 412 | Data Mining and Predictive Analytics |
| 2 Elective Courses - Six additional credits at the upper level in COMM, COMP SCI, or INFO SCI |  |
| Tol 451 |  |

## Total Credits

## Game Studies

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |
| COMP SCI 221 | Database Design \& Management |
| COMP SCI 231 | Introduction to IT Operations |
| COMP SCI 256 | Introduction to Software Design |
| COMM 290 | Communication Problems and Research Methods |
| MATH 260 | Introductory Statistics |
| Choose one: |  |
| COMM 133 | Small Group Communication |
| COMM 237 | Introduction to Data Science |
| Upper-Level Courses | Information and Communication Technologies |
| INFO SCI 302 | Information, Media and Society |
| COMM 308 | Advanced Software Design |
| COMM 430 | Survey of Gaming and Interactive Media |
| COMP SCI 316 | Game Design |
| INFO SCI 341 | Game Development |
| INFO SCI 342 |  |

## Total Credits

## Information Technology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 22 |
| COMM 290 | Communication Problems and Research Methods |  |
| COMP SCI 201 | Introduction to Computing \& Internet Technologies |  |
| COMP SCI 221 | Database Design \& Management |  |
| COMP SCI 231 | Introduction to IT Operations |  |
| COMP SCI 256 | Introduction to Software Design |  |
| MATH 260 | Introductory Statistics |  |
| Choose one: |  |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 27 |
| COMM 308 | Information and Communication Technologies |  |
| COMM 430 | Information, Media and Society |  |
| COMP SCI 316 | Advanced Software Design |  |
| COMP SCI 358 | Data Communication and Computer Networks |  |
| COMP SCI 361 | Information Assurance and Security |  |
| INFO SCI 302 | Introduction to Data Science |  |
| INFO SCI 410 | Analytics and Information Problems |  |
| 2 Elective Courses (choose 6 credits): |  |  |
| Six credits should be | vel courses in COMM, COMP SCI, or INFO SCI |  |

## Total Credits

## International Business

This collaborative program between the Cofrin School of Business and the College of Arts, Humanities, and Social Sciences prepares students for successful careers into today's global economy. The program provides foundational understanding in business and economics, coupled with advanced skills development in language proficiency, cultural competency, and international business and economics. The minor in International Business differentiates students among their peers, and provides a gateway into an exciting professional career.

## Minor

In addition to coursework, students need to complete two requirements:

1. Two (2) years of college-level language courses or equivalent competency in a language other than English. See Chair of Modern Languages for approval.
2. International internship or participation in a study abroad program with a Business focus. See faculty adviser for approval.

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ECON 202 | Macro Economic Analysis |
| ECON 203 | Micro Economic Analysis |
| Upper-Level Courses |  |
| ACCTG 201 | Principles of Financial Accounting |
| MGMT 389 | Organizational Behavior |
| FIN 343 | Corporation Finance |
| MKTG 322 | Principles of Marketing |
| International Courses |  |
| Choose one of the following courses: |  |
| ECON 403 | International Economics and Finance |
| FIN 445 | International Financial Management |
| MKTG 421 | International Marketing |
| Choose one of the following courses: |  |


| FRENCH 367 | Business French |
| :--- | :--- |
| GERMAN 420 | Business German |
| HUM STUD 360 | Globalization and Cultural Conflict |
| SPANISH 358 | Latin America Today |
| SPANISH 359 | The Cultures of the Americas |
| SPANISH 360 | Spain Today |
| SPANISH 361 | The Cultures of Spain |

Total Credits

## Faculty

Gaurav Bansal; Professor; Ph.D., University of Wisconsin - Milwaukee*
David N Coury; Professor; Ph.D., University of Cincinnati
Cristina M Ortiz; Professor; Ph.D., University of Cincinnati
Hernan Fernandez-Meardi; Associate Professor; Ph.D., Universite de Montreal (Canada)
Matthew Geimer; Associate Teaching Professor; J.D., University of Wisconsin - Madison
Praneet Tiwari; Assistant Teaching Professor; M.S., University of North Texas

## Management

## (Bachelor of Business Administration)

The Management major at UW-Green Bay provides students with in-depth knowledge in management through a rigorous curriculum with courses covering critical management topics such as leadership, organizational behavior, data science and decision-making, leading and functioning in teams, diversity, international business and globalization, change management and organizational culture.

The program provides considerable exposure to the liberal arts and develops the critical thinking, problem-solving, interpersonal, communication, quantitative and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues such as global competition, social responsibility and ethics, sustainability, and the relationship between organizations and various environmental forces.

In the management major, students start by completing general education and introductory-level business courses. Additionally, students take courses that provide an overall understanding of business, such as the basics of Marketing, Accounting, Human Resources, Management and Finance among others. Finally, students take management-specific upper-level courses and complete a capstone course prior to applying for graduation.

The Management major has expert faculty who use a variety of pedagogical practices and connect the classroom to the real-world. Students are also encouraged to complete internships for credit.

## Entrance and Exit Requirements

Students can add a Management major at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of the SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression. All students must meet this exit requirement to graduate. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average.

## Major

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Principles of Financial Accounting |  |
| ACCTG 201 | Principles of Managerial Accounting |  |
| ACCTG 202 | Principles of Sustainability in Business |  |
| BUS ADM 201 | Introduction to Business |  |
| BUS ADM 202 | Spreadsheet and Information Systems |  |
| BUSAN 230 | Introduction to Human Resource Management |  |
| HRM 262 |  |  |


| PHILOS 227 | Business Ethics |  |
| :---: | :---: | :---: |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| SCM 200 | Principles of Supply Chain Management |  |
| Economics (choose one combination): |  |  |
| ECON 202 <br> \& ECON 203 | Macro Economic Analysis and Micro Economic Analysis |  |
| $\begin{aligned} & \text { ECON } 208 \\ & \& \text { ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| Statistics (choose one): |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Courses |  | 36 |
| Foundational courses: |  |  |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| SCM 380 | Project Management |  |
| Management Required Courses: |  |  |
| BUSAN 370 | Data Science for Managers |  |
| MGMT 452 | Teams |  |
| MGMT 460 | Leading Innovation and Change |  |
| MGMT 472 | Leadership Development |  |
| Management Elective Courses (choose two): |  |  |
| MGMT 380 | International Business Management |  |
| MGMT 461 | Diversity in Organizations |  |
| MGMT 479 | Organizational Culture \& Design |  |
| ECON 485 | Managerial Economics |  |
| Capstone Experience |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |
| Total Credits |  | 75-76 |
| Minor |  |  |
| Code | Title | Credits |
| Required courses: |  | 9 |
| MGMT 389 | Organizational Behavior |  |
| MGMT 472 | Leadership Development |  |
| MGMT 452 | Teams |  |
| Choose any one of the following: |  | 3 |
| BUS ADM 202 | Introduction to Business |  |
| HRM 262 | Introduction to Human Resource Management |  |
| Choose any two of the following: |  | 6 |
| BUSAN 370 | Data Science for Managers |  |
| MGMT 460 | Leading Innovation and Change |  |
| MGMT 461 | Diversity in Organizations |  |
| Total Credits |  | 18 |

## Faculty

Vallari Chandna; Professor; Ph.D., University of North Texas, chair
Allen Huffcutt; Professor; Ph.D., Texas AM University

Sampath Kumar; Professor; Ph.D., University of Memphis*
Heather Clarke; Associate Professor; Ph.D., Memorial University
David J Radosevich; Associate Professor; Ph.D., University at Albany, State University of New York*
Md Tarique Newaz; Assistant Professor; Ph.D., Texas Tech University
Aniruddha Pangarkar; Assistant Professor; Ph.D., Texas Tech University
Susan Craver; Assistant Teaching Professor; M.B.A., University of Wisconsin - Madison
Anup Nair; Assistant Teaching Professor; M.B.A., Birla Institute of Technology and Science (India)
Dylan Polkinghorne; Assistant Teaching Professor; M.S., University of Wisconsin - Green Bay

## Marketing

## (Bachelor of Business Administration)

The Marketing major in UW-Green Bay's Cofrin School of Business provides students with in-depth knowledge in marketing through a rigorous curriculum with courses covering a wide range of topics, such as digital marketing, international marketing, sales, consumer behavior, social media marketing, advertising, and marketing strategy.

The program provides considerable exposure to the liberal arts and develops the critical thinking, problem-solving, interpersonal, communication, quantitative and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues such as global competition, social responsibility and ethics, sustainability, and the relationship between organizations and various environmental forces.

In the marketing major students start by taking general education and introductory-level business courses. Additionally, students take courses that provide an overall understanding of business, such as the basics of Marketing, Accounting, Human Resources, Management and Finance among others. Finally, students take marketing-specific upper-level courses and complete a capstone course, prior to applying for graduation.

The Marketing faculty are experts in their field who use a variety of pedagogical practices and connect the classroom to the real-world. Students are also encouraged to complete internships for credit.

## Entrance and Exit Requirements

Students can add a Marketing major at any time with any number of credits through a simple online process. Students should contact their Professional Advisor listed under the Program Advisors on the right-hand side of the SIS to start the process. Students will be required to read and accept an Honor Code (pre-declaration form). For students adding a major offered in the Cofrin School of Business, a faculty mentor who specializes in their program will be listed under their Program Advisors in SIS.

Students must maintain a cumulative GPA of 2.5 to proceed in the course progression. All students must meet this exit requirement to graduate. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average.

Major

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ACCTG 201 | Principles of Financial Accounting |
| ACCTG 202 | Principles of Managerial Accounting |
| BUS ADM 201 | Principles of Sustainability in Business |
| BUS ADM 202 | Introduction to Business |
| BUSAN 230 | Spreadsheet and Information Systems |
| HRM 262 | Introduction to Human Resource Management |
| PHILOS 227 | Business Ethics |
| ENTRP 272 | Introduction to Entrepreneurship |
| SCM 200 | Principles of Supply Chain Management |
| Economics (choose one combination): |  |
| ECON 202 | Macro Economic Analysis |
| \& ECON 203 | and Micro Economic Analysis |


| $\begin{aligned} & \text { ECON } 208 \\ & \& \text { ECON } 209 \end{aligned}$ | Economics WTCS Bridge and WTCS Transfer Credit |  |
| :---: | :---: | :---: |
| Statistics (choose one): |  |  |
| BUSAN 220 or MATH 260 | Introduction to Business Statistics Introductory Statistics |  |
| Upper-Level Courses |  | 36 |
| BUS ADM 305 | Legal Environment of Business |  |
| FIN 343 | Corporation Finance |  |
| MGMT 389 | Organizational Behavior |  |
| MKTG 322 | Principles of Marketing |  |
| SCM 380 | Project Management |  |
| Marketing Required Courses |  |  |
| MKTG 345 | Digital Marketing |  |
| MKTG 421 | International Marketing |  |
| MKTG 423 | Advertising |  |
| MKTG 428 | Consumer Behavior |  |
| Marketing Elective Courses (2 of the following courses): |  |  |
| MKTG 327 | Selling and Sales Management |  |
| MKTG 424 | Research Methods |  |
| MKTG 426 | Marketing Strategy |  |
| MKTG 447 | Social Media Marketing and Analytics |  |
| Capstone Experience |  | 3 |
| MGMT 482 | Capstone in Business Strategy |  |
| Total Credits |  | 75-76 |
| Minor |  |  |
| Code | Title | Credits |
| Required courses: |  | 12 |
| MKTG 322 | Principles of Marketing |  |
| MKTG 345 | Digital Marketing |  |
| MKTG 426 | Marketing Strategy |  |
| MKTG 428 | Consumer Behavior |  |
| Choose any 2 of the following: |  | 6 |
| MKTG 327 | Selling and Sales Management |  |
| MKTG 423 | Advertising |  |
| MKTG 447 | Social Media Marketing and Analytics |  |
| MKTG 421 | International Marketing |  |
| MKTG 424 | Research Methods |  |
| Any 400-level DESIGN ARTS class (3 Cr.) |  |  |
| Any 400-level COMM class (3 Cr.) |  |  |

Total Credits

## Faculty

Vallari Chandna; Professor; Ph.D., University of North Texas, chair
Allen Huffcutt; Professor; Ph.D., Texas AM University
Sampath Kumar; Professor; Ph.D., University of Memphis*
Heather Clarke; Associate Professor; Ph.D., Memorial University
David J Radosevich; Associate Professor; Ph.D., University at Albany, State University of New York*
Md Tarique Newaz; Assistant Professor; Ph.D., Texas Tech University

Aniruddha Pangarkar; Assistant Professor; Ph.D., Texas Tech University

Susan Craver; Assistant Teaching Professor; M.B.A., University of Wisconsin - Madison
Anup Nair; Assistant Teaching Professor; M.B.A., Birla Institute of Technology and Science (India)
Dylan Polkinghorne; Assistant Teaching Professor; M.S., University of Wisconsin - Green Bay

## Mathematics \& Statistics

(Bachelor of Science)
The Mathematics discipline has programs of study in two emphasis areas: mathematics and statistics.
Students choosing the emphasis in mathematics will focus their studies in a discipline which has been an important part of our intellectual heritage for centuries. Students select this area of emphasis if they are interested in mathematics for its own sake (pure mathematics) or as a tool for analyzing and solving real-world problems (applied mathematics). Graduates may use their skills in many careers, including fields such as secondary education and engineering. Other typical areas of employment traditional for mathematicians are those requiring physics. Today, mathematical techniques are required in social, industrial, and management realms as well.

The emphasis in statistics provides applied courses in experimental design, multivariate statistical analysis, and applied regression analysis. Students also gain an extensive background in statistical computing. Students who wish to enter actuarial professions may prepare for the first two actuarial examinations by completing the calculus sequence, linear algebra sequence, and statistical theory sequence. Students who concentrate studies in statistics may find employment in business, industry, and government, as well as pursue further professional training in graduate school.

## Program Entrance Requirements

The University of Wisconsin System placement examination in mathematics is used to advise entering freshmen about the level at which they should enter university courses. In rare cases, a student who has been accelerated and has mastery of calculus may, with advice of faculty, enter Calculus and Analytic Geometry II (MATH 203). Upon earning a "C" or better in MATH 203, an additional four credits are granted for MATH 202.

Credits for calculus at UW-Green Bay may also be awarded for satisfactory performance on an AP exam. More details are available at https:// www.uwgb.edu/otsa/credit-for-prior-learning/advanced-placement-(ap)-program/.

Retroactive credit for MATH 202 is not awarded to students who transfer to UW-Green Bay and have completed coursework deemed to be equivalent to MATH 203. If the student completes MATH 209 or MATH 305 at UW-Green Bay, they may submit an approved Retroactive Credit Form to the Registrar's Office to be awarded credit for MATH 202 only.

Mathematics majors often choose an additional minor. Examples are Environmental Science or Business Administration.
Students seeking information on teacher certification should contact the Education Office.

## Area of Emphasis (p. 270)

Students must complete requirements in one of the following areas of emphasis: (p.270)

- Mathematics (p. 270)
- Statistics (p. 270)


## Minors (p. 271)

- Actuarial Science (https://www.uwgb.edu/mathematics/minor-requirements/actuarial-science/)
- Mathematics Minor: Students must complete requirements in one of the following areas of emphasis:
- Mathematics (https://www.uwgb.edu/mathematics/minor-requirements/mathematics-emphasis/)
- Applied Mathematics
- Statistics (https://www.uwgb.edu/mathematics/minor-requirements/statistics-emphasis/)


## Curriculum Guides (p. 273)

The following are only examples of four-year Mathematics degree programs and are subject to change without notice. Students should consult a Mathematics program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Mathematics Emphasis (https://www.uwgb.edu/mathematics/curriculum-guide/mathematics-emphasis/)
- Statistics Emphasis (https://www.uwgb.edu/mathematics/curriculum-guide/statistics-emphasis/)


## Faculty

| Woo Jeon; Professor; Ph.D., University of Wisconsin - Madison, Chair | Green Bay |
| :--- | :--- |
| Yongjun Yang; Associate Professor; Ph.D., Colorado School of Mines | Sheboygan |
| Megumi Onoda; Associate Professor; M.S., Southeastern Louisiana University | Manitowoc |
| Devin Bickner; Associate Professor; Ph.D., lowa State University | Sheboygan |
| Tetyana Malysheva; Associate Professor; Ph.D., University of Oklahoma | Green Bay |
| Mark Norfleet; Assistant Professor; Ph.D., University of Texas-Austin | Green Bay |
| Dhanamalee Bandara; Assistant Professor; Ph.D., Texas Tech University | Green Bay |
| Sungsu Kim; Assistant Professor; Ph.D., University of California-Riverside | Green Bay |
| James M Meyer; Associate Teaching Professor; Ph.D., University of North Carolina | Green Bay |
| Mary E Guy; Associate Teaching Professor; M.S., University of Wisconsin - Oshkosh | Green Bay |
| Synde Kraus; Associate Teaching Professor; M.S., Saginaw State University | Sheboygan |
| Terrisa Deprez; Assistant Teaching Professor; M.S., University of Wisconsin-Oshkosh | Green Bay |
| Katie Burke; Assistant Teaching Professor; Ph.D., University of lowa | Green Bay |
| Keshab Raj Adhikari; Assistant Teaching Professor; M.Ed., Tribhuvan University | Marinette |
| Dennis Crossley; Lecturer; Ph.D., University of Wisconsin-Madison | Sheboygan |
| Ruth Hayden; Lecturer; M.S., University of Wisconsin-Milwaukee | Green Bay |
| MathematicS MajOr |  |
| Area of Emphasis |  |

Students must complete requirements in one of the following areas of emphasis:

- Mathematics
- Statistics


## Mathematics

| Code |  |
| :--- | :--- |
| Supporting Courses | Title |
| MATH 202 | Calculus and Analytic Geometry I |
| MATH 203 | Calculus and Analytic Geometry II |
| MATH 209 | Multivariate Calculus |
| MATH 260 | Introductory Statistics |
| Upper-Level Courses | Ordinary Differential Equations |
| MATH 305 | Proofs in Number Theory and Topology |
| MATH 314 | Linear Algebra and Matrix Theory |
| MATH 320 | Analysis |
| MATH 323 | Abstract Algebra |
| MATH 328 | Applied Mathematical Optimization |
| MATH 355 | Foundations of Geometry |
| MATH 385 | Partial Differential Equations |
| Elective Courses (choose one of the following): |  |
| MATH 406 | Complex Analysis |
| MATH 410 |  |

## Total Credits

## Statistics

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 16 |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  | 31 |
| MATH 306 | Statistical Programming |  |
| MATH 314 | Proofs in Number Theory and Topology |  |
| MATH 320 | Linear Algebra and Matrix Theory |  |
| MATH 323 | Analysis |  |
| MATH 329 | Applied Regression Analysis |  |
| MATH 355 | Applied Mathematical Optimization |  |
| MATH 360 | Theory of Probability |  |
| MATH 361 | Mathematical Statistics |  |
| Elective Courses (choose one of the following): |  |  |
| MATH 430 | Design of Experiments |  |
| MATH 431 | Multivariate Statistical Analysis |  |
| MATH 492 | Special Topics in Mathematics |  |
| Total Credits |  | 47 |

## Mathematics Minors

- Actuarial Science
- Mathematics Minor: Students must complete requirements in one of the following areas of emphasis:
- Mathematics
- Applied Mathematics
- Statistics


## Actuarial Science Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 25 |
| ACCTG 201 | Principles of Financial Accounting |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  | 12 |
| FIN 343 | Corporation Finance |  |
| MATH 306 | Statistical Programming |  |
| MATH 360 | Theory of Probability |  |
| MATH 361 | Mathematical Statistics |  |

## Mathematics

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 16 |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  | 10-11 |
| MATH 314 | Proofs in Number Theory and Topology |  |
| MATH 320 | Linear Algebra and Matrix Theory |  |
| Elective Courses (choose at least 1 courses of the following): |  |  |
| MATH 323 | Analysis |  |
| MATH 328 | Abstract Algebra |  |
| MATH 385 | Foundations of Geometry |  |
| MATH 410 | Complex Analysis |  |
| MATH 492 | Special Topics in Mathematics |  |
| Total Credits |  | 26-27 |
| Applied Mathematics |  |  |
| Code | Title | Credits |
| Supporting Courses |  | 16 |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  | 11 |
| MATH 305 | Ordinary Differential Equations |  |
| MATH 320 | Linear Algebra and Matrix Theory |  |
| Elective Courses (choose at least 1 of the following): |  |  |
| MATH 355 | Applied Mathematical Optimization |  |
| MATH 406 | Partial Differential Equations |  |
| MATH 410 | Complex Analysis |  |
| MATH 492 | Special Topics in Mathematics |  |

## Total Credits

## Statistics

| Code | Title |  |
| :--- | :--- | ---: |
| Supporting Courses |  | Credits |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses | Statistical Programming |  |
| MATH 306 | Linear Algebra and Matrix Theory |  |
| MATH 320 | $\mathbf{1 3 - 1 5}$ |  |
| Elective Courses (choose at least 2 courses from the following): |  |  |
| MATH 329 | Applied Regression Analysis |  |
| MATH 360 | Theory of Probability |  |
| MATH 361 | Mathematical Statistics |  |
| MATH 430 | Design of Experiments |  |

## Mathematics \& Statistics Curriculum Guides

The following are only examples of four-year Mathematics degree programs and are subject to change without notice. Students should consult a Mathematics program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Mathematics Emphasis
- Statistics Emphasis


## Mathematics

An example: Four year plan for Mathematics Major with Mathematics Emphasis
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| MATH 260 | Introductory Statistics | 4 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 314 | Proofs in Number Theory and Topology | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Sophomore |  |  |
| Fall |  |  |
| MATH 209 | Multivariate Calculus | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| MATH 320 | Linear Algebra and Matrix Theory | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
|  |  |  |
| MATH 305 | Ordinary Differential Equations | 4 |
| MATH 328 | Abstract Algebra | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| MATH 355 | Applied Mathematical Optimization | 3 |
| MATH 385 | Foundations of Geometry | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |


| Elective | 3 |
| :---: | :---: |
| Credits | 15 |
| Senior |  |
| Fall |  |
| MATH 323 Analysis | 4 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Credits | 16 |
| Spring |  |
| Math Upper Level Elective MATH 406 (Odd year); MATH 410 (Even year) | 3 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Credits | 15 |
| Total Credits | 124 |

## Statistics

An example: Four year plan for Mathematics Major with Statistics Emphasis
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| MATH 260 | Introductory Statistics | 4 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 306 | Statistical Programming | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |

## Sophomore

Fall

| MATH 209 | Multivariate Calculus | 4 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| MATH 314 | Proofs in Number Theory and Topology | 3 |
| MATH 320 | Linear Algebra and Matrix Theory | 4 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |


| Junior |  |  |
| :--- | :--- | :--- |
| Fall |  |  |
| MATH 323 | Analysis |  |
| MATH 360 | Theory of Probability (Only Even years. Take an elective otherwise.) |  |
| General Ed |  | 3 |
| General Ed |  | 3 |



## Mechanical Engineering

(Bachelor of Science)

## UW-Green Bay Engineering

One of the fastest-growing regions in the state and the Midwest for engineering jobs, Northeast Wisconsin will see tremendous growth in the need for and recruitment of new engineers. This region has the most open positions for engineers in the state and has seen an $18 \%$ increase in demand for engineers since 2010. Engineering as a career focuses on theoretical aspects of mathematical, scientific and engineering principals. New professionals with a Bachelor of Science in Mechanical Engineering from UW-Green Bay will be perfectly-timed and well-prepared to meet the swell in demand for engineers, leading to high-paying, rewarding careers in some of the region's most sought after employers.

## Mechanical Engineering

The University of Wisconsin-Green Bay is proud to be home of the only Mechanical Engineering program in Northeast Wisconsin. Part of the College of Science, Engineering and Technology (CSET) and offered through the (https://www.uwgb.edu/mechanical-engineering/stem-center/)Richard J. Resch School of Engineering (RSE), the Bachelor of Science (B.S.) in Mechanical Engineering is designed as a cutting-edge program that will offer students individualized attention from award-winning professors, a hands-on education with state-of the-art equipment, and opportunities for research and internships with some of the largest companies and employers in the region. The UW-Green Bay Mechanical Engineering program is housed in the newly constructed STEM Innovation Center building.

Mechanical engineering is a diverse and flexible engineering discipline. Mechanical engineers work in number of fields including design of machinery, controls, vibrations and acoustics, power generation, renewable energy, energy conservation, fluid flow and heat transfer applications, and air-conditioning. The program synthesizes math, science, engineering science, and engineering design. The program provides electives in several general areas, including thermal-sciences, mechanical design and manufacturing, robotics and automation, mechanical and environmental systems, and renewable energy. Students begin the practice of design in their freshman year and integrate it throughout their programs which culminate in a team-oriented capstone design project in the senior year. The program is geared to prepare students for the lifelong practice of mechanical engineering and for immediate entry to positions in industry or further studies in graduate schools.

Students will benefit from relationships with local technical colleges, and local industry to complete a B.S. in engineering in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

## Mechanical Engineering Program Learning Outcomes

1. Be employed as a mechanical engineer and perform all functions assigned to a mechanical engineer including completing engineering designs and other applications using both practical and theoretical knowledge characterized by their interdisciplinary strengths.
2. Function effectively both as a leader and as a mentor of project teams, demonstrating effective communication skills and ethical behavior.
3. Achieve positions of increased responsibility within an organization and practice continued education through advanced degree or certificate programs or participation in continuing education in engineering or related professional fields.
4. Adapt to changing industrial and technological advancements and be committed to continuous improvement.

## Contact

For more information contact:
Jagadeep Thota, Ph.D.
Chair, Engineering
Phone: 920-465-2817
Email: thotaj@uwgb.edu
or
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Chair, Richard J. Resch School of Engineering
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## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 40-46 |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 260 | Introductory Statistics |  |
| MATH 209 | Multivariate Calculus |  |
| MATH 305 | Ordinary Differential Equations |  |
| ET 207 | Parametric Modeling |  |
| ENGR 104 | Engineering Graphics |  |
| ENGR 204 | Programming for Engineers |  |
| ENGR 236 | Technical Writing |  |
| ENGR 326 | Numerical Methods |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Chemistry options (choose one): |  |  |
| CHEM 211 <br> \& CHEM 212 <br> \& CHEM 213 <br> \& CHEM 214 <br> or ET 206 | Principles of Chemistry I and Principles of Chemistry II and Principles of Chemistry I Laboratory and Principles of Chemistry II Laboratory Chemistry for Engineers |  |
| Fundamentals Courses |  | 21 |
| ENGR 201 | Engineering Materials |  |
| ENGR 213 | Mechanics I |  |
| ENGR 214 | Mechanics II |  |
| ENGR 216 | Basic Manufacturing Processes |  |
| ENGR 220 | Mechanics of Materials |  |
| ENGR 221 | Mechanics of Materials Lab |  |
| ENGR 308 | Electrical and Electronic Circuits |  |
| ENGR 312 | Engineering Measurements |  |
| ENGR 322 | Engineering Measurements Lab |  |
| Advanced Courses |  | 20 |


| ENGR 324 | Engineering Thermodynamics |  |
| :---: | :---: | :---: |
| ENGR 336 | Fluids |  |
| ENGR 337 | Fluids Lab |  |
| ENGR 340 | Analysis of Dynamic Systems |  |
| ENGR 408 | Finite Element Analysis |  |
| ENGR 420 | Machine Component Design I |  |
| ENGR 430 | Heat Transfer |  |
| ENGR 431 | Thermal Lab |  |
| Capstone Requirement |  | 3 |
| ENGR 460 | Senior Design |  |
| Technical Electives (choose three courses): |  | 9 |
| ET 360 | Project Management |  |
| ET 385 | Robotics |  |
| ET 390 | Mechatronics |  |
| ET 400 | Co-op/Internship in Engineering Technology |  |
| or ENGR 494 | Co-op |  |
| ET 415 | Solar and Alternate Energy Systems |  |
| ENGR 334 | Industrial Decision Processes |  |
| ENGR 344 | Mechanical Vibration |  |
| ENGR 422 | Machine Component Design II |  |
| ENGR 432 | Automatic Controls |  |
| ENGR 498 | Independent Study (up to 3 credits) |  |

Total Credits

## Curriculum Guide

The following curriculum guide is for a four-year Mechanical Engineering degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available.

Total 123 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| ET 206 | Chemistry for Engineers | 4 |
| ENGR 104 | Engineering Graphics | 1 |
| First Year Seminar (FYS) |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| ENGR 204 | Programming for Engineers | 2 |
| ET 207 | Parametric Modeling | 2 |
| MATH 260 | Introductory Statistics | 4 |
| General Education |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| MATH 209 | Multivariate Calculus | 4 |
| ENGR 201 | Engineering Materials | 2 |
| ENGR 213 | Mechanics I | 3 |
| ENGR 236 | Technical Writing | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGR 214 | Mechanics II | 3 |
| ENGR 216 | Basic Manufacturing Processes | 3 |



Technical Electives (choose any three):

1. ENGR 334 Industrial Decision Processes (3 s.h.)
2. ENGR 344 Mechanical Vibration (3 s.h.)
3. ENGR 422 Machine Component Design II (3 s.h.)
4. ENGR 432 Automatic Controls (3 s.h.)
5. ENGR 498 Independent Study (1-4 s.h.)
6. ET 360 Project Management (3 s.h.)
7. ET 385 Robotics (3 s.h.)
8. ET 390 Mechatronics (3 s.h.)
9. ET 400 Co-op/Internship in Engineering Technology (3 s.h.) or ENGR 494 Co-op (1-2 s.h.)
10. ET 415 Solar and Alternate Energy Systems (3 s.h.)

## Faculty

Maruf Hossain; Professor; Ph.D., University of Memphis
John F Katers; Professor; Ph.D., Marquette University*
Patricia A Terry; Professor; Ph.D., University of Colorado, chair*

Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina
Michael Holly; Associate Professor; Ph.D., University of Wisconsin - Madison
Md Rasedul Islam; Associate Professor; Ph.D., University of Wisconsin - Madison
Mohammad Mahfuz; Associate Professor; Ph.D., University of Ottawa
Jagadeep Thota; Associate Professor; Ph.D., University of Nevada - Las Vegas
Elie Atallah; Assistant Professor; Ph.D., University of Central Florida
Kpoti (Stefan) Gunn; Assistant Professor; Ph.D., Ohio State University
Jian Zhang; Assistant Professor; Ph.D., Mississippi State University
Taskia Ahammad Khan; Assistant Teaching Professor; M.S., Bradley University
Nabila Rubaiya; Assistant Teaching Professor; M.S., University of Wisconsin - Milwaukee

## Mechanical Engineering Technology

(Bachelor of Science)

## Accreditation

The Mechanical Engineering Technology program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

## UW-Green Bay Engineering Technology

Combine hands-on learning with academic coursework and get ready for high-demand jobs in the growing field of engineering technology. The University partners with regional leaders and technical colleges so that you will be prepared for an ever-changing industry. Get the technical skills that will make you an expert and the critical-thinking skills that will make you indispensable.

## Engineering Technology Mission

All of the Engineering Technology programs (Electrical, Mechanical and Environmental) include a strong liberal arts base along with a number of handson experiences, including a capstone experience or internship that often will be working with businesses and organizations within the community.

## Mechanical Engineering Technology

Mechanical engineering technology (MET) is the application of engineering principles and technological developments to new and existing manufacturing systems. Mechanical engineering technologists work with engineers in designing, testing, and manufacturing mechanical equipment or systems. There are many employment opportunities in mechanical design, manufacturing and industrial engineering technology, industrial management, computer aided design, applied research and sales and service.

The Bachelor of Science (B.S.) degree in Mechanical Engineering Technology at UW-Green Bay is a professional program that prepares students for careers in applied mechanical engineering using analytical and critical problem solving skills needed in regional and national industries, manufacturing, and engineering services firms. The focus of the program is the application of engineering principles to the solution of practical problems. Students will develop skills in hands on application labs and courses that explore the fundamentals of mechanics, mathematics, physics, materials technology, and computer aided design. Teamwork, technical writing, and project management are also emphasized throughout the curriculum. The goal of the major is to develop well rounded engineering technologists that can adapt and succeed in a highly competitive workplace.

Students will benefit from relationships with local technical colleges, and local industry to complete a B.S. in engineering technology in the Northeast Wisconsin area. Students may start earning their degree at UW-Green Bay or local technical colleges to give maximum flexibility in degree completion. In addition, the Northeast Wisconsin Educational Resource Alliance, NEW ERA, has established advisory boards linking leaders in regional industry and participating institutions to the major. Through these relationships students will have many opportunities for internships, co-op experiences, and employment after graduation.

## Mechanical Engineering Technology Program Learning Outcomes

1. Program graduates will secure and maintain employment in appropriate MET positions industry-wide and perform all functions assigned to an mechanical engineering technologist.
2. Graduates will apply their knowledge of mathematics, science, engineering technology, and computing to identify, analyze, and solve problems pertaining to design, development, and implementation of electronic systems.
3. Graduates will exhibit a desire for life-long learning through higher education, technical training, teaching, membership in professional societies, and other developmental activities and will achieve positions of increased responsibility through these activities.
4. Graduates will demonstrate high levels of oral and written communication skills, critical thinking, responsibility and ethical behavior, teamwork and appreciation for diversity, and leadership in their careers.

## Contact

For more information contact:
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or
Patricia Terry, Ph.D.
Chair, Richard J. Resch School of Engineering
Phone: 920-465-2749
Email: terryp@uwgb.edu

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 31-37 |
| ENGR 204 | Programming for Engineers |  |
| ENGR 236 | Technical Writing |  |
| ET 101 | Fundamentals of Engineering Technology |  |
| ET 105 | Fundamentals of Drawing |  |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| MATH 260 | Introductory Statistics |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Chemistry options (choose one): |  |  |
| CHEM 211 <br> \& CHEM 213 <br> \& CHEM 212 <br> \& CHEM 214 <br> or ET 206 | Principles of Chemistry I and Principles of Chemistry I Laboratory and Principles of Chemistry II and Principles of Chemistry II Laboratory Chemistry for Engineers |  |
| Fundamental Courses |  | 23 |
| ET 207 | Parametric Modeling |  |
| ET 218 | Fluid Mechanics |  |
| ENGR 201 | Engineering Materials |  |
| ENGR 213 | Mechanics I |  |
| ENGR 214 | Mechanics II |  |
| ENGR 216 | Basic Manufacturing Processes |  |
| ENGR 220 | Mechanics of Materials |  |
| ENGR 221 | Mechanics of Materials Lab |  |
| ENGR 308 | Electrical and Electronic Circuits |  |
| Advanced Courses |  | 30 |
| ET 318 | Fluid Power Systems |  |
| ET 324 | Motors and Drives |  |
| ET 360 | Project Management |  |
| ET 380 | Industrial Automation Control |  |
| ET 385 | Robotics |  |


| ET 390 | Mechatronics |  |
| :---: | :---: | :---: |
| ET 405 | Applied Thermodynamics |  |
| ENGR 324 | Engineering Thermodynamics |  |
| ENGR 408 | Finite Element Analysis |  |
| ENGR 420 | Machine Component Design I |  |
| Capstone Requirement |  | 3 |
| ET 400 | Co-op/Internship in Engineering Technology |  |
| or ET 410 | Capstone Project |  |
| Technical Electives (choose two co | ourses): | 6 |
| ET 415 | Solar and Alternate Energy Systems |  |
| ENGR 334 | Industrial Decision Processes |  |
| ENGR 422 | Machine Component Design II |  |
| ENGR 498 | Independent Study (upto 3 credits) |  |
| ENGR 494 | Co-op |  |
| Total Credits |  | 93-99 |

## Curriculum Guide

The following curriculum guide is for a four-year Mechanical Engineering Technology degree program and is subject to change without notice. Students should consult their program advisor to ensure that they have the most accurate and up-to-date information available. This program is accredited by the Engineering Technology Accreditation Commission (ETAC) of ABET, www.abet.org.

Total 123 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| MATH 202 | Calculus and Analytic Geometry I (Quantitative Literacy) | 4 |
| ET 101 | Fundamentals of Engineering Technology | 2 |
| ET 105 | Fundamentals of Drawing | 3 |
| ET 206 | Chemistry for Engineers | 4 |
| First Year Seminar |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| ET 207 | Parametric Modeling | 2 |
| ENGR 204 | Programming for Engineers | 2 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 14 |
| Sophomore |  |  |
| Fall |  |  |
| MATH 260 | Introductory Statistics | 4 |
| ENGR 201 | Engineering Materials | 2 |
| ENGR 213 | Mechanics I | 3 |
| ENGR 236 | Technical Writing | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ENGR 214 | Mechanics II | 3 |
| ENGR 216 | Basic Manufacturing Processes | 3 |
| ET 218 | Fluid Mechanics | 3 |
| ENGR 220 | Mechanics of Materials | 3 |
| ENGR 221 | Mechanics of Materials Lab | 1 |
| General Education |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| PHYSICS 202 | Principles of Physics II | 4 |
| PHYSICS 204 | Introductory Physics Lab II | 1 |


| ENGR 308 | Electrical and Electronic Circuits | 3 |
| :---: | :---: | :---: |
| ET 318 | Fluid Power Systems | 3 |
| ET 385 | Robotics | 3 |
| General Education |  | 3 |
|  | Credits | 17 |
| Spring |  |  |
| ENGR 324 | Engineering Thermodynamics | 3 |
| ET 324 | Motors and Drives | 3 |
| ET 360 | Project Management | 3 |
| General Education |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| ET 380 | Industrial Automation Control | 3 |
| ENGR 408 | Finite Element Analysis | 3 |
| ENGR 420 | Machine Component Design I | 3 |
| Technical Elective I |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ET 390 | Mechatronics | 3 |
| ET 405 | Applied Thermodynamics | 3 |
| $\begin{aligned} & \text { ET } 400 \\ & \quad \text { or ET } 410 \end{aligned}$ | Co-op/Internship in Engineering Technology (Capstone) or Capstone Project | 3 |
| Technical Elective II |  | 3 |
| General Education |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 123 |

Technical Electives (choose any two):

1. ET 415 Solar and Alternate Energy Systems (3 s.h.)
2. ENGR 334 Industrial Decision Processes (3 s.h.)
3. ENGR 422 Machine Component Design II (3 s.h.)
4. ENGR 494 Co-op (1-2 s.h.)
5. ENGR 498 Independent Study (1-4 s.h.)

## Faculty

Maruf Hossain; Professor; Ph.D., University of Memphis
John F Katers; Professor; Ph.D., Marquette University*
Patricia A Terry; Professor; Ph.D., University of Colorado, chair*

Riaz Ahmed; Associate Professor; Ph.D., University of South Carolina
Md Rasedul Islam; Associate Professor; Ph.D., University of Wisconsin - Madison
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Taskia Ahammad Khan; Assistant Teaching Professor; M.S., Bradley University
Nabila Rubaiya; Assistant Teaching Professor; M.S., University of Wisconsin - Milwaukee

## Music

(Bachelor of Music or Bachelor of Arts)
UW-Green Bay Music students benefit from the University's beautiful Weidner Center for the Performing Arts, one of Wisconsin's premiere performance venues with an acoustically superb environment. Most Music Department concerts and recitals are held in one of the Weidner Center's three performance spaces. Students have multiple opportunities to attend master classes, performances, and lectures by renowned guest artists who visit our campus each year. Practice rooms are ample and have acoustic technology and multi-media technology exists in all teaching spaces. The keyboard/ technology lab and recording studio are available to music students interested in recording, composition, arranging, production, and music technology.

The Music program offers two degrees, a professional degree - the Bachelor of Music and a liberal arts degree - the Bachelor of Arts.
The Bachelor of Music degree prepares students to enter the music profession directly, or to pursue more advanced study in graduate school.

- The Bachelor of Music in Music Education prepares students to enter the teaching profession, with Wisconsin DPI licensure available in Pre-K-12 Choral \& General Music, and Pre-K-12 Instrumental \& General Music. Students seeking the Music Education degree must demonstrate a high level of musical and academic proficiency, and perform a half recital during the third year of applied study. Music Education majors select Education as a minor, leading to licensure in their chosen area(s), upon completion of student teaching. See more information regarding Education Program (p. 150) requirements.
- The Bachelor of Music in Performance is a professional degree that prepares students for a career in music performance or graduate study of their instrument or voice. Students are admitted to the performance program after their fourth semester of applied study and must demonstrate a very high degree of musical proficiency and academic ability in music. Performance majors receive intensive applied instruction at the upper levels and perform full recitals at the completion of each of these levels.

The Bachelor of Arts degree offers the study of music in a liberal arts framework. It is intended for students who wish to major in Music as a part of a liberal arts program. Students in this track may tailor their educational experience to their individual interests by selecting from four distinct emphases: Audio Production, Jazz Studies, Composition, and Individualized Studies. The degree helps students prepare for a broad array of career options and may also be appropriate for those intending to pursue advanced study in music. The B.A. in Music affords students the opportunity to pursue a second field of expertise within the credits required for graduation.

Students are admitted to the Music major and minor by audition. Majors take a sequence of theory, history, and skills courses to achieve a comprehensive intellectual understanding of music along with the development of solo and ensemble performance abilities. Individual applied instruction is available in voice, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, euphonium, tuba, percussion, piano, organ, guitar, string bass, and electric bass. Music majors may also pursue applied instruction in composition, arranging, musical theater, improvisation.

Music majors are encouraged to select an interdisciplinary minor in consultation with their faculty adviser. Music Education majors select Education as a minor, leading to licensure in their chosen area(s). Many Music majors choose an Arts Management minor or second major. Other students select minors that support various career aspirations and/or intellectual interests, such as Business Administration or Human Development.

It is also possible to choose Music as a minor, which provides breadth to a major. The Music minor may be especially appropriate for students who have an interest in studying music, but who intend to pursue careers in other fields.

All degree programs include large and chamber ensemble requirements. Performance opportunities in major ensembles include Wind Symphony, Symphonic Band, Chorale, and Concert Choir. Minor ensembles include Jazz Combo, Flute Ensemble, Woodwind Ensemble, Saxophone Ensemble, Brass Ensemble, Jazz Ensembles, Contemporary Percussion Ensemble, Hand Drumming, New Music Ensemble, Vocal Jazz Ensemble, Opera/Musical Theatre Workshop, and Chamber Singers.

The University of Wisconsin-Green Bay is accredited by the National Association of Schools of Music.

## Major Area of Emphasis (BM) (p. 291)

Students must complete requirements in one of the following areas of emphasis: (p. 291)

- Music Education: Pre-K-12 Instrumental and General Music (p. 291)
- Music Education: Pre-K-12 Choral and General Music (p. 291)
- Instrumental Performance (p. 291)
- Vocal Performance (p. 291)


## Major Area of Emphasis (BA) (p. 284)

Students must complete requirements in one of the following areas of emphasis: (p. 284)

All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in an interdisciplinary major or minor and general education. (p. 284)

- Audio Production (p. 284)
- Composition (p. 284)
- Individual Studies (p. 284)
- Jazz Studies (p. 284)


## Minor Area of Emphasis (p. 298)

Students must complete requirements in one of the following areas of emphasis: (p. 298)

- Music Performance (p. 298)
- Music Studies (p. 298)


## Faculty

Michelle McQuade-Dewhirst; Professor; Ph.D., University of Chicago
Luis Fernandez; Associate Professor; D.M.A., University of Miami
Adam W Gaines; Associate Professor; D.A., Ball State University
Eric C Hansen; Associate Professor; M.M., University of Kentucky
Randall A Meder; Associate Professor; D.M.A., University of Illinois at Urbana - Champaign
Michael Rector; Associate Professor; D.M.A., Manhattan School of Music
William Sallak; Associate Professor; D.M.A., Arizona State University
Courtney J Sherman; Associate Professor; D.M.A., Arizona State University, chair
Christy Talbott; Associate Professor; Ph.D., Ohio State University
Whitney Myers; Assistant Professor; D.M.A., University of Kentucky

## Music Major (BA)

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:
All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in another major or minor and general education.

- Audio Production
- Composition
- Individual Studies
- Jazz Studies


## Audio Production

All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in another major or minor and general education.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | $\mathbf{2 5}$ |
| MUS APP 11 | Keyboard Musicianship I |  |
| MUS APP 21 | Keyboard Musicianship II |  |
| MUSIC 103 | Music Technology Tools |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |



| MUS ENS 350 | New Music Ensemble |
| :--- | :--- |
| MUS ENS 354 | Guitar Ensemble |
| MUS ENS 363 | Chamber Singers |
| MUS ENS 365 | Vocal Jazz Ensemble |
| MUS ENS 366 | Opera Workshop |
| MUS ENS 388 | Hand Drumming Ensemble |
| MUS ENS 441 | Bands and Orchestra |
| MUS ENS 461 | University Singers |
| MUS ENS 462 | Concert Choir |
| MUSIC 316 | Instrumental Arranging |
| MUSIC 333 | Basic Conducting |
| MUSIC 353 | Music History I |
| MUSIC 362 | World Music |
| MUSIC 363 | Jazz History |
| MUSIC 417 | Jazz Arranging |
| MUSIC 423 | Seminar in Music Literature |
| MUSIC 453 | Materials and Design |
| MUSIC 497 | Internship |
| MUSIC 498 | Independent Study |
| MUSIC 499 | Travel Course |
| THEATRE 364 | Musical Theatre History |

Total Credits

## Composition

All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in another major or minor and general education.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 26-29 |
| MUS APP 11 <br> \& MUS APP 21 <br> \& MUS APP 31 <br> \& MUS APP 41 <br> or MUS APP 13 | Keyboard Musicianship I and Keyboard Musicianship II and Keyboard Musicianship III and Keyboard Musicianship IV Advanced Keyboard Musicianship |  |
| MUSIC 103 | Music Technology Tools |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 152 | Music Theory II |  |
| MUSIC 209 | Applied Composition (Must take total of 4 credits) |  |
| MUSIC 215 | Advanced Sight Singing and Ear Training |  |
| MUSIC 253 | Music Theory III |  |
| MUSIC 254 | Music Theory IV |  |
| First Semester Applied (1 credit): |  | 1 |
| MUS APP 101 | Keyboard Lessons 1 |  |
| MUS APP 105 | Voice Lessons 1 |  |
| MUS APP 127 | Instrumental Lessons 1 |  |
| Second Semester Applied (1 credit) |  | 1 |
| MUS APP 102 | Keyboard Lessons 2 |  |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 128 | Instrumental Lessons 2 |  |
| Third Semester Applied (1 credit): |  | 1 |
| MUS APP 201 | Keyboard Lessons 3 |  |


| MUS APP 205 | Voice Lessons 3 |  |
| :---: | :---: | :---: |
| MUS APP 227 | Instrumental Lessons 3 |  |
| Fourth Semester Applied (1 credit): |  | 1 |
| MUS APP 202 | Keyboard Lessons 4 |  |
| MUS APP 206 | Voice Lessons 4 |  |
| MUS APP 228 | Instrumental Lessons 4 |  |
| Major Ensemble Requirement (complete 4 credits): |  | 4 |
| MUS ENS 241 | Bands and Orchestra |  |
| MUS ENS 261 | University Singers |  |
| MUS ENS 262 | Concert Choir |  |
| Upper-Level Courses |  | 21-22 |
| MUSIC 353 | Music History I |  |
| MUSIC 354 | Music History II |  |
| MUSIC 453 | Materials and Design |  |
| MUSIC 480 | Capstone Project |  |
| MUSIC 411 | Advanced Composition (4 credits required) |  |
| MUS ENS 350 | New Music Ensemble |  |
| Upper-Level Minor Ensemble (1 credit): |  | 1 |
| MUS ENS 313 | Keyboard Accompanying |  |
| MUS ENS 342 | Jazz Combo |  |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 344 | Woodwind Ensemble |  |
| MUS ENS 345 | Brass Ensemble |  |
| MUS ENS 346 | Contemporary Percussion Ensemble |  |
| MUS ENS 350 | New Music Ensemble |  |
| MUS ENS 363 | Chamber Singers |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| MUS ENS 366 | Opera Workshop |  |
| MUS ENS 388 | Hand Drumming Ensemble |  |
| Upper-Level Electives ( 6 credits required): |  | 6 |
| MUS APP 301 | Keyboard Lessons 5 |  |
| MUS APP 302 | Keyboard Lessons 6 |  |
| MUS APP 305 | Voice Lessons 5 |  |
| MUS APP 306 | Voice Lessons 6 |  |
| MUS APP 327 | Instrumental Lessons 5 |  |
| MUS APP 328 | Instrumental Lessons 6 |  |
| MUS APP 401 | Keyboard Lessons 7 |  |
| MUS APP 402 | Keyboard Lessons 8 |  |
| MUS APP 405 | Voice Lessons 7 |  |
| MUS APP 406 | Voice Lessons 8 |  |
| MUS APP 427 | Instrumental Lessons 7 |  |
| MUS APP 428 | Instrumental Lessons 8 |  |
| MUS APP 497 | Internship |  |
| MUS APP 498 | Independent Study |  |
| MUS ENS 342 | Jazz Combo |  |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 345 | Brass Ensemble |  |
| MUS ENS 346 | Contemporary Percussion Ensemble |  |
| MUS ENS 350 | New Music Ensemble |  |
| MUS ENS 363 | Chamber Singers |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| MUS ENS 366 | Opera Workshop |  |


| MUS ENS 388 | Hand Drumming Ensemble |
| :---: | :---: |
| MUS ENS 441 | Bands and Orchestra |
| MUS ENS 461 | University Singers |
| MUS ENS 462 | Concert Choir |
| MUSIC 305 | Diction for Singers I |
| MUSIC 306 | Diction for Singers II |
| MUSIC 333 | Basic Conducting |
| MUSIC 341 | Woodwind Techniques |
| MUSIC 342 | Brass Techniques |
| MUSIC 343 | String Techniques |
| MUSIC 344 | Choral Conducting and Rehearsal Techniques |
| MUSIC 345 | Percussion Techniques |
| MUSIC 348 | Instrumental Conducting and Rehearsal Techniques |
| MUSIC 362 | World Music |
| MUSIC 363 | Jazz History |
| MUSIC 411 | Advanced Composition |
| MUSIC 417 | Jazz Arranging |
| MUSIC 423 | Seminar in Music Literature |
| MUSIC 498 | Independent Study |
| MUSIC 499 | Travel Course |
| THEATRE 364 | Musical Theatre History |

## Individual Studies

All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in another major or minor and general education.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 24-25 |
| Keyboard Requirement: |  |  |
| MUS APP 11 | Keyboard Musicianship I |  |
| \& MUS APP 21 | and Keyboard Musicianship II |  |
| or MUS APP 13 | Advanced Keyboard Musicianship |  |
| Required: |  |  |
| MUSIC 103 | Music Technology Tools |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 152 | Music Theory II |  |
| MUSIC 253 | Music Theory III |  |
| MUSIC 254 | Music Theory IV |  |
| First Semester Applied (1 credit): |  |  |
| MUS APP 101 | Keyboard Lessons 1 |  |
| MUS APP 105 | Voice Lessons 1 |  |
| MUS APP 127 | Instrumental Lessons 1 |  |
| Second Semester Applied (1 credit): |  |  |
| MUS APP 102 | Keyboard Lessons 2 |  |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 128 | Instrumental Lessons 2 |  |
| Third Semester Applied (1 credit): |  |  |
| MUS APP 201 | Keyboard Lessons 3 |  |
| MUS APP 205 | Voice Lessons 3 |  |
| MUS APP 227 | Instrumental Lessons 3 |  |


| Fourth Semester Applied (1 credit): |  |
| :--- | :--- |
| MUS APP 202 | Keyboard Lessons 4 |
| MUS APP 206 | Voice Lessons 4 |
| MUS APP 228 | Instrumental Lessons 4 |


| Major Ensemble Requirement (complete $\mathbf{4}$ credits): |  |
| :---: | :--- |
| MUS ENS 241 | Bands and Orchestra |
| MUS ENS 261 | University Singers |
| MUS ENS 262 | Concert Choir |


| Upper-Level Courses |  | 26 |
| :---: | :---: | :---: |
| MUSIC 353 | Music History I |  |
| MUSIC 354 | Music History II |  |
| MUSIC 480 | Capstone Project |  |
| Music Theory and | dits): |  |
| $\begin{aligned} & \text { MUSIC } 423 \\ & \text { or MUSIC } 453 \end{aligned}$ | Seminar in Music Literature Materials and Design |  |
| Minor Ensemble (comer | dits): |  |


| MUS ENS 313 | Keyboard Accompanying |
| :--- | :--- |
| MUS ENS 342 | Jazz Combo |
| MUS ENS 343 | Jazz Ensemble |
| MUS ENS 344 | Woodwind Ensemble |
| MUS ENS 345 | Brass Ensemble |
| MUS ENS 346 | Contemporary Percussion Ensemble |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 363 | Chamber Singers |
| MUS ENS 365 | Vocal Jazz Ensemble |
| MUS ENS 366 | Opera Workshop |
| MUS ENS 388 | Hand Drumming Ensemble |
| Upper-Level Electives (12 credits): |  |


| MUS APP 301 | Keyboard Lessons 5 |
| :--- | :--- |
| MUS APP 302 | Keyboard Lessons 6 |
| MUS APP 305 | Voice Lessons 5 |
| MUS APP 306 | Voice Lessons 6 |
| MUS APP 327 | Instrumental Lessons 5 |
| MUS APP 328 | Instrumental Lessons 6 |
| MUS APP 401 | Keyboard Lessons 7 |
| MUS APP 402 | Keyboard Lessons 8 |
| MUS APP 405 | Voice Lessons 7 |
| MUS APP 406 | Voice Lessons 8 |
| MUS APP 427 | Instrumental Lessons 7 |
| MUS APP 428 | Instrumental Lessons 8 |
| MUS APP 497 | Internship |
| MUS APP 498 | Independent Study |
| MUS ENS 441 | Bands and Orchestra |
| MUS ENS 461 | University Singers |
| MUS ENS 462 | Concert Choir |
| MUSIC 301 | Music Technology Systems |
| MUSIC 305 | Diction for Singers I |
| MUSIC 306 | Diction for Singers II |
| MUSIC 319 | Choral/Vocal Techniques |
| MUSIC 333 | Basic Conducting |
| MUSIC 341 | Woodwind Techniques |
| MUSIC 342 | Brass Techniques |


| MUSIC 343 | String Techniques |
| :--- | :--- |
| MUSIC 344 | Choral Conducting and Rehearsal Techniques |
| MUSIC 345 | Percussion Techniques |
| MUSIC 348 | Instrumental Conducting and Rehearsal Techniques |
| MUSIC 362 | World Music |
| MUSIC 363 | Jazz History |
| MUSIC 411 | Advanced Composition |
| MUSIC 417 | Jazz Arranging |
| MUSIC 423 | Seminar in Music Literature |
| MUSIC 497 | Internship |
| MUSIC 498 | Independent Study |
| MUSIC 499 | Travel Course |
| THEATRE 364 | Musical Theatre History |

Total Credits

## Jazz Studies

All students seeking the Bachelor of Arts with a major in Music must complete a liberal arts requirement consisting of a minimum of 66 credits in addition to credits earned in Music courses. These 66 credits may include credits earned to fulfill requirements in another major or minor and general education.

| Code | Title |  |
| :---: | :---: | :---: |
| Supporting Courses |  | 30-31 |
| Keyboard Requirement: |  |  |
| MUS APP 11 <br> \& MUS APP 21 <br> or MUS APP 13 | Keyboard Musicianship I and Keyboard Musicianship II <br> Advanced Keyboard Musicianship |  |
| Required: |  |  |
| MUS ENS 142 | Jazz Combo |  |
| MUSIC 103 | Music Technology Tools |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 152 | Music Theory II |  |
| MUSIC 220 | Introduction to Jazz Theory and Improvisation |  |
| MUSIC 242 | Jazz and Pop Literature |  |
| MUSIC 253 | Music Theory III |  |
| MUSIC 254 | Music Theory IV |  |
| First Semester Applied (1 credit): |  |  |
| MUS APP 101 | Keyboard Lessons 1 |  |
| MUS APP 105 | Voice Lessons 1 |  |
| MUS APP 127 | Instrumental Lessons 1 |  |
| Second Semester Applied (1 credit): |  |  |
| MUS APP 102 | Keyboard Lessons 2 |  |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 128 | Instrumental Lessons 2 |  |
| Third Semester Applied (1 credit): |  |  |
| MUS APP 201 | Keyboard Lessons 3 |  |
| MUS APP 205 | Voice Lessons 3 |  |
| MUS APP 227 | Instrumental Lessons 3 |  |
| Fourth Semester Applied (1 credit): |  |  |
| MUS APP 202 | Keyboard Lessons 4 |  |
| MUS APP 206 | Voice Lessons 4 |  |
| MUS APP 228 | Instrumental Lessons 4 |  |
| Major Ensemble R | omplete 4 credits): |  |


| MUS ENS 241 | Bands and Orchestra |  |
| :---: | :---: | :---: |
| MUS ENS 261 | University Singers |  |
| MUS ENS 262 | Concert Choir |  |
| Jazz Ensemble (1 credit): |  |  |
| MUS ENS 143 | Jazz Ensemble |  |
| MUS ENS 165 | Vocal Jazz Ensemble |  |
| Upper-Level Courses |  | 25 |
| MUSIC 311 | Jazz Improvisation |  |
| MUSIC 354 | Music History II |  |
| MUSIC 363 | Jazz History |  |
| MUSIC 417 | Jazz Arranging |  |
| MUSIC 453 | Materials and Design |  |
| MUSIC 480 | Capstone Project |  |
| Major Ensemble (complete 2 credits): |  |  |
| MUS ENS 441 | Bands and Orchestra |  |
| MUS ENS 461 | University Singers |  |
| MUS ENS 462 | Concert Choir |  |
| Jazz Ensemble (2 credits): |  |  |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| Music Electives (5 credits): |  |  |
| MUSIC 301 | Music Technology Systems |  |
| MUSIC 311 | Jazz Improvisation |  |
| MUSIC 362 | World Music |  |
| MUSIC 411 | Advanced Composition |  |
| MUSIC 417 | Jazz Arranging |  |
| MUS APP 301 | Keyboard Lessons 5 |  |
| MUS APP 302 | Keyboard Lessons 6 |  |
| MUS APP 305 | Voice Lessons 5 |  |
| MUS APP 306 | Voice Lessons 6 |  |
| MUS APP 327 | Instrumental Lessons 5 |  |
| MUS APP 328 | Instrumental Lessons 6 |  |
| MUS ENS 342 | Jazz Combo |  |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| THEATRE 364 | Musical Theatre History |  |

## Total Credits

## Music Major (BM)

## Areas of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Music Education: Pre-K-12 Instrumental and General Music
- Music Education: Pre-K-12 Choral and General Music
- Instrumental Performance
- Vocal Performance


## Music Education: Pre-K-12 Instrumental and General Music

Code Title
Supporting Courses

| MUSIC 103 | Music Technology Tools |
| :--- | :--- |
| MUSIC 115 | Ear Training and Sight Singing I |
| MUSIC 116 | Ear Training and Sight Singing II |
| MUSIC 151 | Music Theory I |
| MUSIC 152 | Music Theory II |
| MUSIC 215 | Advanced Sight Singing and Ear Training |
| MUSIC 253 | Music Theory III |
| MUSIC 254 | Music Theory IV |
| MUS APP 45 | Elementary Voice I |
| MUS APP 69 | Elementary Guitar |
| Keyboard Requirement: | Keyboard Musicianship I |
| MUS APP 11 | and Keyboard Musicianship II |
| \& MUS APP 21 | and Keyboard Musicianship III |
| \& MUS APP 31 | and Keyboard Musicianship IV |
| \& MUS APP 41 | Advanced Keyboard Musicianship |
| or MUS APP 13 |  |

## First Semester Applied (complete 2 credits):

| MUS APP 101 | Keyboard Lessons 1 |
| :--- | :--- |
| or MUS APP 127 | Instrumental Lessons 1 |

## Second Semester Applied (complete 2 credits):

| MUS APP 102 | Keyboard Lessons 2 |
| :--- | :--- |
| or MUS APP 128 | Instrumental Lessons 2 |

## Third Semester Applied (complete 2 credits):

| MUS APP 201 | Keyboard Lessons 3 |
| :--- | :--- |
| or MUS APP 227 | Instrumental Lessons 3 |

## Fourth Semester Applied (complete 2 credits):

| MUS APP 202 | Keyboard Lessons 4 |
| :--- | :--- |
| or MUS APP 228 | Instrumental Lessons 4 |

Major Ensemble (complete a total of 4 credits):

| MUS ENS 241 | Bands and Orchestra |
| :--- | :--- |
| Improvisation-choose one: |  |
| MUSIC 220 | Introduction to Jazz Theory and Improvisation |
| MUS ENS 142 | Jazz Combo |
| MUS ENS 150 | New Music Ensemble |
| MUS ENS 165 | Vocal Jazz Ensemble |
| MUS ENS 188 | Hand Drumming Ensemble |
| MUS ENS 342 | Jazz Combo |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 365 | Vocal Jazz Ensemble |
| MUS ENS 388 | Hand Drumming Ensemble |

Upper-Level Courses
EDUC 317 Teaching Music in the Middle and Secondary Schools
EDUC 334 Teaching General Music in the Elementary and Middle Schools
MUS APP 396 Junior Recital
MUSIC 333 Basic Conducting
MUSIC 341 Woodwind Techniques
MUSIC 342 Brass Techniques
MUSIC 343 String Techniques
MUSIC $345 \quad$ Percussion Techniques
MUSIC 348 Instrumental Conducting and Rehearsal Techniques
MUSIC 353 Music History I
MUSIC $354 \quad$ Music History II
MUSIC 362 World Music


## Music Education: Pre-K-12 Choral and General Music

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| Required |  |
| MUSIC 103 | Music Technology Tools |
| MUSIC 115 | Ear Training and Sight Singing I |
| MUSIC 116 | Ear Training and Sight Singing II |
| MUSIC 151 | Music Theory I |
| MUSIC 152 | Music Theory II |
| MUSIC 215 | Advanced Sight Singing and Ear Training |
| MUSIC 253 | Music Theory III |
| MUSIC 254 | Music Theory IV |
| MUS APP 69 | Elementary Guitar |

[^1]| MUS APP 11 | Keyboard Musicianship I |
| :--- | :--- |
| \& MUS APP 21 | and Keyboard Musicianship II |
| \& MUS APP 31 | and Keyboard Musicianship III |
| \& MUS APP 41 | and Keyboard Musicianship IV |
| or MUS APP 13 | Advanced Keyboard Musicianship |


| Applied Lessons (8 credits required): |  |
| :--- | :--- |
| MUS APP 105 | Voice Lessons 1 |
| MUS APP 106 | Voice Lessons 2 |
| MUS APP 205 | Voice Lessons 3 |
| MUS APP 206 | Voice Lessons 4 |
| Major Ensemble (complete 4 credits): |  |
| MUS ENS 261 | University Singers |
| MUS ENS 262 | Concert Choir |
| Improvisation-choose one: |  |
| MUSIC 220 | Introduction to Jazz Theory and Improvisation |
| MUS ENS 142 | Jazz Combo |
| MUS ENS 150 | New Music Ensemble |
| MUS ENS 165 | Vocal Jazz Ensemble |
| MUS ENS 188 | Hand Drumming Ensemble |
| MUS ENS 342 | Jazz Combo |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 365 | Vocal Jazz Ensemble |
| MUS ENS 388 | Hand Drumming Ensemble |


| Upper-Level Courses |  |
| :--- | :--- |
| EDUC 317 | Teaching Music in the Middle and Secondary Schools |
| EDUC 334 | Teaching General Music in the Elementary and Middle Schools |
| MUS APP 396 | Junior Recital |
| MUSIC 305 | Diction for Singers I |
| MUSIC 333 | Basic Conducting |
| MUSIC 344 | Choral Conducting and Rehearsal Techniques |
| MUSIC 353 | Music History I |
| MUSIC 354 | Music History II |
| MUSIC 362 | World Music |

Choral / Vocal Techniques ( 3 credits required):
MUSIC $319 \quad$ Choral/Vocal Techniques
Applied Lessons (4 credits required):

| MUS APP 305 | Voice Lessons 5 |
| :--- | :--- |
| MUS APP 306 | Voice Lessons 6 Must Perform Half Recital |

Minor Ensemble (complete 2 credits):

| MUS ENS 142 | Jazz Combo |
| :--- | :--- |
| MUS ENS 143 | Jazz Ensemble |
| MUS ENS 144 | Woodwind Ensemble |
| MUS ENS 145 | Brass Ensemble |
| MUS ENS 146 | Contemporary Percussion Ensemble |
| MUS ENS 150 | New Music Ensemble |
| MUS ENS 163 | Chamber Singers |
| MUS ENS 165 | Vocal Jazz Ensemble |
| MUS ENS 166 | Opera Workshop |
| MUS ENS 188 | Hand Drumming Ensemble |
| MUS ENS 313 | Keyboard Accompanying |
| MUS ENS 342 | Jazz Combo |
| MUS ENS 343 | Jazz Ensemble |
| MUS ENS 344 | Woodwind Ensemble |


| MUS ENS 345 | Brass Ensemble |
| :--- | :--- |
| MUS ENS 346 | Contemporary Percussion Ensemble |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 363 | Chamber Singers |
| MUS ENS 365 | Vocal Jazz Ensemble |
| MUS ENS 366 | Opera Workshop |
| MUS ENS 388 | Hand Drumming Ensemble |
| Major Ensemble (complete 2 credits): |  |
| MUS ENS 461 | University Singers |
| MUS ENS 462 | Concert Choir |
| Upper-Level History/Theory Elective |  |
| MUSIC 423 | Seminar in Music Literature |
| or MUSIC 453 | Materials and Design |

Total Credits

## Instrumental Performance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 28-31 |
| Required: |  |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 152 | Music Theory II |  |
| MUSIC 215 | Advanced Sight Singing and Ear Training |  |
| MUSIC 253 | Music Theory III |  |
| MUSIC 254 | Music Theory IV |  |
| Keyboard Requirement: |  |  |
| MUS APP 11 <br> \& MUS APP 21 <br> \& MUS APP 31 <br> \& MUS APP 41 <br> or MUS APP 13 | Keyboard Musicianship I and Keyboard Musicianship II and Keyboard Musicianship III and Keyboard Musicianship IV <br> Advanced Keyboard Musicianship |  |
| First Semester Applied (2 credits): |  |  |
| MUS APP 101 or MUS APP 127 | Keyboard Lessons 1 <br> Instrumental Lessons 1 |  |
| Second Semester Applied (2 credits): |  |  |
| MUS APP 102 or MUS APP 128 | Keyboard Lessons 2 Instrumental Lessons 2 |  |
| Third Semester Applied (2 credits): |  |  |
| MUS APP 201 or MUS APP 227 | Keyboard Lessons 3 Instrumental Lessons 3 |  |
| Fourth Semester Applied (2 credits): |  |  |
| MUS APP 202 or MUS APP 228 | Keyboard Lessons 4 <br> Instrumental Lessons 4 |  |
| Major Ensemble (complete 4 credits): |  |  |
| MUS ENS 241 | Bands and Orchestra |  |
| Upper-Level Courses |  | 45 |
| MUS APP 396 | Junior Recital |  |
| MUS APP 496 | Senior Recital |  |
| MUSIC 333 | Basic Conducting |  |
| MUSIC 353 | Music History I |  |
| MUSIC 354 | Music History II |  |


| MUSIC 362 | World Music |
| :--- | :--- |
| MUSIC 363 | Jazz History |
| MUSIC 423 | Seminar in Music Literature |
| MUSIC 453 | Materials and Design |
| Fifth Semester Applied (3 credits): |  |
| MUS APP 301 | Keyboard Lessons 5 |
| or MUS APP 327 Instrumental Lessons 5 <br> Sixth Semester Applied (3 credits): Must perform full recital  |  |
| MUS APP 302 | Keyboard Lessons 6 |
| or MUS APP 328 | Instrumental Lessons 6 |

## Seventh Semester Applied (3 credits):

| MUS APP 401 | Keyboard Lessons 7 |
| :--- | :--- |
| or MUS APP 427 | Instrumental Lessons 7 |
| Eighth Semester Applied ( $\mathbf{3}$ credits): Must perform full recital |  |
| MUS APP 402 | Keyboard Lessons 8 |
| or MUS APP 428 | Instrumental Lessons 8 |

## Major Ensemble (complete 4 credits): <br> MUS ENS 441 Bands and Orchestra

Minor Ensemble (complete 2 credits):

| MUS ENS 142 | Jazz Combo |
| :---: | :---: |
| MUS ENS 143 | Jazz Ensemble |
| MUS ENS 144 | Woodwind Ensemble |
| MUS ENS 145 | Brass Ensemble |
| MUS ENS 146 | Contemporary Percussion Ensemble |
| MUS ENS 150 | New Music Ensemble |
| MUS ENS 188 | Hand Drumming Ensemble |
| MUS ENS 313 | Keyboard Accompanying |
| MUS ENS 342 | Jazz Combo |
| MUS ENS 343 | Jazz Ensemble |
| MUS ENS 344 | Woodwind Ensemble |
| MUS ENS 345 | Brass Ensemble |
| MUS ENS 346 | Contemporary Percussion Ensemble |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 388 | Hand Drumming Ensemble |
| Music Electives (choose 6 credits): |  |
| MUSIC 301 | Music Technology Systems |
| MUSIC 311 | Jazz Improvisation |
| MUSIC 319 | Choral/Vocal Techniques |
| MUSIC 341 | Woodwind Techniques |
| MUSIC 342 | Brass Techniques |
| MUSIC 343 | String Techniques |
| MUSIC 344 | Choral Conducting and Rehearsal Techniques |
| MUSIC 345 | Percussion Techniques |
| MUSIC 348 | Instrumental Conducting and Rehearsal Techniques |
| MUSIC 411 | Advanced Composition |
| MUSIC 417 | Jazz Arranging |
| MUSIC 423 | Seminar in Music Literature (may be repeated with different topic) |

$\begin{array}{ll}\text { Total Credits } & \text { 73-76 }\end{array}$

## Vocal Performance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 28-31 |
| Required: |  |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 116 | Ear Training and Sight Singing II |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 152 | Music Theory II |  |
| MUSIC 215 | Advanced Sight Singing and Ear Training |  |
| MUSIC 253 | Music Theory III |  |
| MUSIC 254 | Music Theory IV |  |
| Keyboard Requirement: |  |  |
| MUS APP 11 <br> \& MUS APP 21 <br> \& MUS APP 31 <br> \& MUS APP 41 <br> or MUS APP 13 | Keyboard Musicianship I and Keyboard Musicianship II and Keyboard Musicianship III and Keyboard Musicianship IV Advanced Keyboard Musicianship |  |
| Applied Lessons (8 credits required): |  |  |
| MUS APP 105 | Voice Lessons 1 |  |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 205 | Voice Lessons 3 |  |
| MUS APP 206 | Voice Lessons 4 |  |
| Major Ensemble (complete 4 credits): |  |  |
| MUS ENS 261 | University Singers |  |
| MUS ENS 262 | Concert Choir |  |
| Foreign Language Requirement 9-12 |  |  |
| Vocal Performance student must complete 3 semesters of any combination of Italian, French and German language courses |  |  |
| Upper-Level Courses |  | 47 |
| MUS APP 396 | Junior Recital |  |
| MUS APP 496 | Senior Recital |  |
| MUSIC 305 | Diction for Singers I |  |
| MUSIC 306 | Diction for Singers II |  |
| MUSIC 319 | Choral/Vocal Techniques (Vocal Pedagogy) |  |
| MUSIC 319 | Choral/Vocal Techniques (Choral Arranging) |  |
| MUSIC 333 | Basic Conducting |  |
| MUSIC 353 | Music History I |  |
| MUSIC 354 | Music History II |  |
| MUSIC 362 | World Music |  |
| MUSIC 363 | Jazz History |  |
| MUSIC 423 | Seminar in Music Literature |  |
| MUSIC 453 | Materials and Design |  |
| Fifth Semester Applied (3 credits): |  |  |
| MUS APP 305 | Voice Lessons 5 |  |
| Sixth Semester Applied (3 credits): |  |  |
| MUS APP 306 | Voice Lessons 6 Must perform full recital |  |
| Seventh Semester Applied ( 3 credits): |  |  |
| MUS APP 405 | Voice Lessons 7 |  |
| Eighth Semester Applied ( 3 credits): |  |  |
| MUS APP 406 | Voice Lessons $8{ }^{\text {Must perform full recital }}$ |  |
| Major Ensemble (complete 4 credits): |  |  |
| MUS ENS 461 | University Singers |  |
| MUS ENS 462 | Concert Choir |  |


| Minor Ensemble (2 credits): |  |
| :--- | :--- |
| MUS ENS 150 | New Music Ensemble |
| MUS ENS 163 | Chamber Singers |
| MUS ENS 165 | Vocal Jazz Ensemble |
| MUS ENS 166 | Opera Workshop |
| MUS ENS 313 | Keyboard Accompanying |
| MUS ENS 350 | New Music Ensemble |
| MUS ENS 363 | Chamber Singers |
| MUS ENS 366 | Opera Workshop |
| Music Electives (complete 2 credits): |  |
| MUSIC 301 | Music Technology Systems |
| MUSIC 311 | Jazz Improvisation |
| MUSIC 319 | Choral/Vocal Techniques (if not required above) |
| MUSIC 344 | Choral Conducting and Rehearsal Techniques |
| MUSIC 348 | Instrumental Conducting and Rehearsal Techniques |
| MUSIC 411 | Advanced Composition |
| MUSIC 417 | Jazz Arranging |
| MUSIC 423 | Seminar in Music Literature (may be repeated with a different topic) |

## Total Credits

## Music Minor

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Music Performance
- Music Studies


## Music Performance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Performance Courses |  | 14 |
| First Semester Applied (2 credits): |  |  |
| MUS APP 101 | Keyboard Lessons 1 |  |
| MUS APP 105 | Voice Lessons 1 |  |
| MUS APP 127 | Instrumental Lessons 1 |  |
| Second Semester Applied (2 credits): |  |  |
| MUS APP 102 | Keyboard Lessons 2 |  |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 128 | Instrumental Lessons 2 |  |
| Third Semester Applied (2 credits): |  |  |
| MUS APP 201 | Keyboard Lessons 3 |  |
| MUS APP 205 | Voice Lessons 3 |  |
| MUS APP 227 | Instrumental Lessons 3 |  |
| Fourth Semester Applied (2 credits): |  |  |
| MUS APP 202 | Keyboard Lessons 4 |  |
| MUS APP 206 | Voice Lessons 4 |  |
| MUS APP 228 | Instrumental Lessons 4 |  |
| Lower Level Major Ensemble (4 credits): |  |  |
| MUS ENS 241 | Bands and Orchestra |  |
| MUS ENS 261 | University Singers |  |
| MUS ENS 262 | Concert Choir |  |
| Upper Level Music E | credits): |  |


| MUS ENS 342 | Jazz Combo |  |
| :---: | :---: | :---: |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 344 | Woodwind Ensemble |  |
| MUS ENS 345 | Brass Ensemble |  |
| MUS ENS 346 | Contemporary Percussion Ensemble |  |
| MUS ENS 348 | Collegium Musicum |  |
| MUS ENS 350 | New Music Ensemble |  |
| MUS ENS 354 | Guitar Ensemble |  |
| MUS ENS 363 | Chamber Singers |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| MUS ENS 366 | Opera Workshop |  |
| MUS ENS 388 | Hand Drumming Ensemble |  |
| MUS ENS 441 | Bands and Orchestra |  |
| MUS ENS 461 | University Singers |  |
| MUS ENS 462 | Concert Choir |  |
| Supporting Courses (Complete 3 credits): |  | 3 |
| MUSIC 103 | Music Technology Tools |  |
| MUSIC 121 | Survey of Western Music |  |
| MUSIC 151 | Music Theory I |  |
| MUSIC 224 | Popular Music Since 1955 |  |
| MUSIC 272 | Women in the Performing Arts |  |
| Upper-Level Courses (Complete 3 credits): |  | 3 |
| MUSIC 301 | Music Technology Systems |  |
| MUSIC 305 | Diction for Singers I |  |
| MUSIC 306 | Diction for Singers II |  |
| MUSIC 333 | Basic Conducting |  |
| MUSIC 353 | Music History I |  |
| MUSIC 354 | Music History II |  |
| MUSIC 362 | World Music |  |
| MUSIC 363 | Jazz History |  |
| THEATRE 364 | Musical Theatre History |  |

## Total Credits

## Music Studies

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| MUSIC 115 | Ear Training and Sight Singing I |
| MUSIC 116 | Ear Training and Sight Singing II |
| MUSIC 121 | Survey of Western Music |
| MUSIC 151 | Music Theory I |
| MUSIC 152 | Music Theory II |
| Keyboard Requirement: Complete One Set |  |
| Set One | Keyboard Musicianship I |
| MUS APP 11 | Keyboard Musicianship II |
| MUS APP 21 | Advanced Keyboard Musicianship |
| Set Two |  |
| MUS APP 13 | Keyboard Lessons 1 |
| First Semester Applied (2 credits): |  |
| MUS APP 101 | Voice Lessons 1 |
| MUS APP 105 | Instrumental Lessons 1 |
| MUS APP 127 |  |

Second Semester Applied (2 credits):

| MUS APP 102 | Keyboard Lessons 2 |  |
| :---: | :---: | :---: |
| MUS APP 106 | Voice Lessons 2 |  |
| MUS APP 128 | Instrumental Lessons 2 |  |
| Major Ensemble (2 credits): |  |  |
| MUS ENS 241 | Bands and Orchestra |  |
| MUS ENS 261 | University Singers |  |
| MUS ENS 262 | Concert Choir |  |
| Upper-Level Courses |  | 6 |
| Electives (choose from the following): ${ }^{1}$ |  |  |
| MUSIC 301 | Music Technology Systems |  |
| MUSIC 333 | Basic Conducting |  |
| MUSIC 362 | World Music |  |
| MUSIC 363 | Jazz History |  |
| Ensemble Courses (must choose a minimum of 1 credit): |  |  |
| MUS ENS 342 | Jazz Combo |  |
| MUS ENS 343 | Jazz Ensemble |  |
| MUS ENS 344 | Woodwind Ensemble |  |
| MUS ENS 345 | Brass Ensemble |  |
| MUS ENS 346 | Contemporary Percussion Ensemble |  |
| MUS ENS 350 | New Music Ensemble |  |
| MUS ENS 363 | Chamber Singers |  |
| MUS ENS 365 | Vocal Jazz Ensemble |  |
| MUS ENS 366 | Opera Workshop |  |
| MUS ENS 388 | Hand Drumming Ensemble |  |
| MUS ENS 441 | Bands and Orchestra |  |
| MUS ENS 461 | University Singers |  |
| MUS ENS 462 | Concert Choir |  |

1 Students must complete a minimum of one credit of 300 or 400 -level Ensemble Course

## Nursing

(Bachelor of Science in Nursing)

## Overview of the Nursing Programs at UW-Green Bay

Our mission is to transform communities by improving health and healthcare delivery. We offer high quality, student-centered nursing programs that inspire students to think critically and address complex health issues. The nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE). More information about the BSN programs can be found by clicking on the program tab.

## Bachelor of Science in Nursing (BSN)

We offer several options to earn a BSN including the following:

- Traditional BSN- The traditional BSN program prepares nursing graduates to work in today's fast-paced healthcare environments. Building on a strong science and liberal arts base, the nursing curriculum uses a concept-based approach to enhance students' clinical reasoning. Using exemplars to illustrate each of the concepts, students learn to assimilate and sort information while recognizing patterns. The program is designed to be completed in 4 years.


## Traditional BSN Program Learning Outcomes

By the end of the BSN program, the individual will be able to:

1. Engage in professional nursing practice that is patient-centered and culturally appropriate for individuals, families, and communities. (VIII, IX)
2. Demonstrate clinical judgement through the delivery of evidence-based nursing care across the lifespan. (III \& IX)
3. Integrate principles of quality improvement, safety, and sustainability into nursing practice within healthcare organizations and systems. (II)
4. Use knowledge sources effectively to deliver health promotion, disease prevention strategies designed to improve population health outcomes. (VII)
5. Demonstrate leadership and caring behaviors via advocacy, fiscal awareness, and analysis of health policy in dynamic healthcare environments. (V, VIII)
6. Engage in effective communication and interprofessional collaboration in the delivery of health care for quality patient outcomes. (VI)
7. Use technologies for the management of information, delivery of patient care, and to support nursing innovation. (IV)

- NURSE 1-2-1- a program designed for high school seniors (apply fall semester senior year). Students admitted to the NURSE 1-2-1 program complete courses at UW-Green Bay in years 1 and 4 and earn their Associate Degree in Nursing (ADN) at Northeast Wisconsin Technical College (NWTC) in years 2 \& 3.

For nurses with an Associate Degree in Nursing (ADN)

- RN-BSN Completion- Offered both online via the BSN@HOME Collaborative and on campus. Eligible students must have a current, unencumbered RN license from any state in the U.S.
- BSN-MSN Accelerated Leadership Option- designed for RN-BSN students with leadership experience. This option allows RN-BSN students to complete select graduate (MSN) courses that will satisfy the associated RN-BSN course requirements. This allows students to accelerate their path to the MSN Leadership and Management degree.

Program Outcomes for the RN-BSN Completion (including the NURSE 1-2-1 program)
The Baccalaureate program prepares the graduate to:

1. Use knowledge from liberal and interdisciplinary problem focused education as a basis for nursing practice.
2. Use knowledge and skills in leadership, quality improvement and patient safety to provide high quality healthcare.
3. Engage in a systematic process of evaluation, translation, and application of scientific evidence to inform nursing practice.
4. Recognize the role of information management and patient care technologies to improve patient care outcomes.
5. Examine how healthcare policies, including financial and regulatory, influence healthcare systems and nursing practices.
6. Integrate interprofessional communication and collaborative skills to optimize holistic patient care.
7. Apply health promotion, disease and injury prevention strategies to improve population health.
8. Promote professionalism and model the values of altruism, autonomy, caring, human dignity, integrity and social justice in nursing practice.
9. Synthesize previous and newly acquired knowledge, theory, skills, and attitudes to address health care needs of culturally diverse individuals and populations across the continuum of healthcare environments.

## Master of Science in Nursing (MSN) Leadership \& Management

The MSN Leadership \& Management program is designed for nurses who aspire to nursing positions at all levels of leadership. In this program, students learn from experts in their fields. Students complete a leadership practicum working directly with nurse leaders. Click for more information https://www.uwgb.edu/msn/

## MSN Program Outcomes

The MSN Leadership and Management in Health Systems 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 in decision 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 interprofessional 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.

## For Further Information

UWGB Nursing \& Health Studies website: https://www.uwgb.edu/nursing-health/

E-mail: nursing@uwgb.edu
Phone: 920-465-2826 or
Toll-free 888-NSG-UWGB (888-674-8942)
To apply online: https://apply.wisconsin.edu/

## RN-BSN

## Major Area of Emphasis (p. 309)

Students must complete requirements in one of the following areas of emphasis:

- RN-BSN Completion
- RN-BSN Completion (Accelerated) - Integrated with graduate Master of Science in Nursing Leadership and Management program


## Overview of the RN-BSN Program

UW-Green Bay has a rich history of offering RN to BSN both on campus and online as a part of the collaborative UW BSN@HOME program. The RNBSN program is designed for associate degree registered nurses looking to advance their career. This accredited, high quality program is designed to be nurse friendly, flexible, and meet the needs of adult learners and working registered nurses. Faculty employ innovative, media enhanced technologies to engage students.

The program consists of 120 credits for the BSN degree that builds on the foundation of the associate degree or diploma in nursing. Prior learning is acknowledged through liberal credit transfer. The RN transfers at least 60 credits through articulation agreements. Additional credits completed at other universities, colleges, or community colleges may also transfer. The curriculum includes general education (18 credits), nursing support courses (12-15 credits), and upper level RN-BSN courses ( 30 credits). The online upper level RN-BSN courses are offered in 7 and 14-week sessions including the summer term.

The curriculum is designed to help students:

- Discover the latest evidence based nursing practice
- Understand how health policy impacts practice
- Expand knowledge of population health through practicum experiences close to home
- Examine cultural and global health issues facing nurses
- Learn recent advances in informatics \& innovative healthcare technologies


## Admission Requirements:

- Earned Associate Degree in Nursing (ADN) or diploma in nursing
- Grade point average of 2.5 on a 4.0 scale (or equivalent) on post-secondary coursework
- Current, unencumbered RN license from any state


## Nurse 1-2-1

This unique program is designed for high school students who would like to earn a BSN through the combined resources of the nursing programs at UW-Green Bay and Northeast Wisconsin Technical College (NWTC). Prospective high school students admitted to UW-Green Bay complete a NURSE 1-2-1 application in fall of their senior year. Students complete general education and support courses in Year 1 at UW-Green Bay; complete the Associate Degree in Nursing (ADN) at NWTC in Years 2 and 3; and return to UW-Green Bay Year 4 to complete the BSN degree.

## BSN- MSN Accelerated Leadership Option

UW-Green Bay offers an accelerated path to the MSN Leadership and Management degree for qualified RN-BSN students (see below for eligibility criteria). Pay undergraduate tuition rates while you earn up to nine graduate credits. This option allows qualified undergraduate students to enroll in three specific MSN courses (NUR 737 Leadership in Complex Systems; NUR 734 Evaluation and Evidence-Based Practices; NUR 760 Informatics for Nursing Leaders).

These courses:

- satisfy both the undergraduate (RN-BSN) and graduate course requirements (after admission to the MSN program),
- provide more advanced content than the equivalent undergraduate course. Refresher content is available for reference,


## BSN-MSN Accelerated Leadership Option Eligibility Criteria

- Experience in a leadership role
- Completion of at least six RN-BSN upper level credits with a cumulative GPA of 3.25 or higher

For more information about the BSN-MSN Accelerated Leadership Option click here https://www.uwgb.edu/rn-bsn/ ; For more information about the MSN program, click here https://www.uwgb.edu/msn/.

## Traditional 4yr

## Overview of the Traditional BSN Program

The Traditional BSN program prepares nurse generalists to work in hospitals, long-term care, and community settings. The professional (BSN) portion of the curriculum includes 65 credits and is designed to be completed in five semesters of full time study. A concept-based approach is used to foster development of clinical reasoning by assisting students to sort, analyze, and find connections in health information.

The concepts are categorized around three main categories: Healthcare Recipient Concepts (e.g., Functional Ability, Family Dynamics, Culture), Health and IIIness Concepts (e.g., Homeostasis, Protection, Mood), and Professional Nursing Concepts (e.g., Nursing Roles, Collaboration, Population Health, Healthcare Economics). The concepts are introduced and reinforced throughout the curriculum using exemplars or case examples that a nurse will experience in their practice. For example, the concept of immunity may be taught as a primary or interrelated concept at several points in the curriculum using exemplars such as rheumatoid arthritis, vaccination of children and adults, allergic reactions, or when understanding the immunocompromised state a patient experiencing cancer treatment often faces. Students and faculty will engage in active learning strategies designed to emphasize application of material rather than rote memorization.

Graduates will be prepared to sit for the National Council of State Boards of Nursing Licensure Exam (NCLEX-RN).
Admission Requirements- Prospective nursing students apply in March the year prior to starting the Traditional BSN program.
To be considered for the Traditional BSN Program, applicants must have:

- 30 completed college credits including at least 3 of the following 4 science courses completed or in progress
- BIOLOGY 201 \& BIOLOGY 202 or equivalent
- CHEM 108 \& CHEM 109 or equivalent
- HUM BIOL 240 \& HUM BIOL 241 or equivalent
- BIOLOGY 323 \& BIOLOGY 324 or equivalent
- Minimum 3.0 college GPA with no required science course grade lower than a "C"
- Preferred criteria:
- Completion of Nursing Assistant Course (must be completed prior to starting nursing courses)
- Healthcare experience
- Community service/Volunteer experience
- Bilingual

Admission to the Traditional Nursing program is competitive. Completion of the minimum requirements does not guarantee admission to the nursing major.

For application information including a link to the application click here https://www.uwgb.edu/bsn-traditional/admission-requirements/
Admitted students must complete a Criminal Background Check (cost incurred by student) and results must comply with standards required for clinical placement.

## Traditional BSN Program Outcomes

By the end of the Traditional BSN program, graduates will be able to:

1. Engage in professional nursing practice that is patient-centered and culturally appropriate for individuals, families and communities.
2. Demonstrate clinical judgement through the delivery of evidence-based nursing care across the lifespan.
3. Integrate principles of quality improvement, safety, and sustainability into nursing practice within healthcare organizations and systems.
4. Use knowledge sources effectively to deliver health promotion, disease prevention strategies designed to improve population health outcomes.
5. Demonstrate leadership and caring behaviors via advocacy, fiscal awareness, and analysis of health policy in dynamic healthcare environments.
6. Engage in effective communication and interprofessional collaboration in the delivery of health care for quality patient outcomes.
7. Use technologies for the management of information, delivery of patient care, and to support nursing innovation.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  |  |
| Required: |  | 18 |
| BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| BIOLOGY 202 | Principles of Biology Lab: Cellular and Molecular Processes |  |
| CHEM 108 | Survey of General, Organic and Biochemistry |  |
| CHEM 109 | Survey of General, Organic, and Biochemistry Laboratory |  |
| CHEM 207 | Laboratory Safety |  |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| PSYCH 343 | Adult Development and Aging |  |
| Microbiology: Choose one of the following |  | 4 |
| BIOLOGY 323 <br> \& BIOLOGY 324 | Principles of Microbiology and Principles of Microbiology Laboratory |  |
| HUM BIOL 323 \& HUM BIOL 326 | Medical Microbiology and Medical Microbiology Lab |  |
| Anatomy \& Physiology: Choose one of the following |  | 5-8 |
| HUM BIOL 221 <br> \& HUM BIOL 222 | Anatomy and Physiology I and Anatomy and Physiology II |  |
| HUM BIOL 240 <br> \& HUM BIOL 241 | Anatomy and Physiology and Anatomy and Physiology Lab |  |
| Statistics: Choose one of the following |  | 4 |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Nutrition: Choose one of the following |  | 3 |
| NUT SCI 202 | Ethnic Influences on Nutrition |  |
| NUT SCI 208 | Art and Science of Healthy Food Preparation |  |
| NUT SCI 242 | Food and Nutritional Health |  |
| NUT SCI 250 | World Food and Population Issues |  |
| NUT SCI 300 | Human Nutrition |  |
| Communication: Choose one of the following |  | 3 |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Required Nursing Courses: |  | 14 |
| NURSING 240 | Introduction to Professional Nursing Concepts |  |
| NURSING 250 | Communicating and Managing Healthcare Information |  |
| NURSING 255 | Health Assessment for Nursing Practice |  |
| NURSING 270 | Basic \& Intermediate Nursing Skills and Simulation |  |
| NURSING 280 | Pathophysiology Concepts for Nursing Practice |  |
| NURSING 290 | Foundations of Nursing Practice: Practicum/Experiential Learning |  |
| Upper-Level Courses |  |  |
| Required Nursing Courses |  | 51 |
| NURSING 300 | Pharmacology for Nursing Practice |  |
| NURSING 305 | Healthy Aging and Chronic Care Management |  |
| NURSING 320 | Health \& Illness Concepts I |  |
| NURSING 331 | Health \& Illness Concepts I: Advanced Nursing Skills/Simulation |  |
| NURSING 332 | Health \& Illness Concepts I: Practicum |  |
| NURSING 340 | Quality Improvement |  |
| NURSING 350 | Professional Development I: Nursing Theory, Image and Ethics |  |
| NURSING 360 | Health \& Illness Concepts II |  |
| NURSING 370 | Evidence-Based Practice: Translating Research to Practice |  |


| NURSING 380 | Alterations in Health \& Illness II: Practicum/Simulation |
| :--- | :--- |
| NURSING 390 | Leadership for Sustainable Healthcare: Health Disparities, Health Equity, \& the Nursing Profession |
| NURSING 400 | Nursing Care of the Childbearing Family |
| NURSING 410 | Behavioral Health Care Management |
| NURSING 420 | Nursing with Diverse Populations Practicum |
| NURSING 430 | Population/Community Health Nursing Theory |
| NURSING 440 | Population/Community Health Nursing Practicum |
| NURSING 450 | Health \& Illness Concepts III: Complex Care |
| NURSING 461 | Care Transitions Practicum Immersion |
| NURSING 470 | Professional Development: Navigating the Nursing Profession |
| NURSING 480 | Leadership: Nursing in an Evolving Healthcare System |

## Total Credits

## Faculty

Christine L Vandenhouten; Professor; Ph.D., Marquette University, chair*
Myunghee Jun; Associate Professor; Ph.D., Seoul National University*
Susan Hopkinson; Assistant Professor; Ph.D., University of Maryland - Baltimore*
Jenna Liphart-Rhoads; Assistant Professor; Ph.D., Capella University*
Cheryl Passel; Assistant Professor; Ph.D., Marian University
Jaclyn Holm; Associate Teaching Professor; M.S., Bellin College
Sharon Gajeski; Assistant Teaching Professor; M.S.N., University of Wisconsin - Oshkosh
Elizabeth Luecht; Assistant Teaching Professor; M.S.N., University of Phoenix
Erica Rollin; Assistant Teaching Professor; M.S., University of Wisconsin - Oshkosh

## Curriculum Guides (p. 305)

The following are curriculum guides for a four-year Nursing degree program and are subject to change without notice. Students should consult a Nursing program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- RN-BSN
- Nursing 1-2-1
- Traditional 4yr Nursing


## Curriculum Guides

The following are curriculum guides for a four-year Nursing degree program and is subject to change without notice. Students should consult a Nursing program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- RN-BSN
- Nursing 1-2-1
- Traditional 4yr Nursing


## RN-BSN

This is an example two-year plan for the Nursing RN-BSN program showing only the NURSING courses that are needed. 120 credits are necessary to graduate. This plan is only an example. You should check with your advisor for a specific plan based on your circumstances.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Junior |  |  |
| Fall |  |  |
| NURSING 407 | Foundations of Professional Nursing Practice | 3 |
| NURSING 441 | Chronic Care Management | 3 |
| NURSING 492 | Special Topics in Nursing | 3 |
|  | Credits | 9 |


| Spring |  |  |
| :---: | :---: | :---: |
| NURSING 446 | Research and Evidence-Based Practice | 3 |
| NURSING 454 | Community Health Nursing | 3 |
|  | Credits | 6 |
| Summer |  |  |
| NURSING 453 | Information Management and Healthcare Technology | 3 |
|  | Credits | 3 |
| Senior |  |  |
| Fall |  |  |
| NURSING 455 | Community Health Nursing Practicum | 3 |
| NURSING 447 | Leadership and Management | 3 |
|  | Credits | 6 |
| Spring |  |  |
| NURSING 490 | Synthesis for Nursing Practice | 3 |
| NURSING 492 | Special Topics in Nursing | 3 |
|  | Credits | 6 |
|  | Total Credits | 30 |

## Nursing 1-2-1

An example: Four year plan for Nursing Major RN-BSN Completion 120 credits necessary to graduate. Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| First Year |  |  |
| Fall |  |  |
| First Year Seminar |  | 3 |
| COMM 102 <br> or COMM 133 | Introduction to Communication or Fundamentals of Public Address | 3 |
| MATH 94 or MATH 101 | Elementary Algebra or Advanced Algebra | 3 |
| PSYCH 102 | Introduction to Psychology | 3 |
| WF 100 | First Year Writing | 3 |
|  | Credits | 15 |
| Winter |  |  |
| a HUMANITIES course (not PHILOS) |  | 3 |
|  | Credits | 3 |
| Spring |  |  |
| CHEM 108 | Survey of General, Organic and Biochemistry | 4 |
| \& CHEM 109 | and Survey of General, Organic, and Biochemistry Laboratory |  |
| PSYCH 203 | Introduction to Lifespan Development | 3 |
| PSYCH 205 | Social Science Statistics | 4 |
| WF 105 | Research and Rhetoric | 3 |
| a FINE ARTS course |  | 3 |
|  | Credits | 17 |
| Summer |  |  |
| CNA Courses taken at NWTC prior to Fall 2nd Year |  |  |
| 30-543-300 Nursing Assistant |  |  |
|  | Credits | 0 |
| Second Year |  |  |
| Fall |  |  |
| Courses taken at NWTC |  |  |
| 10-432-101 Nursing Fundamentals |  | 2 |
| 10-543-102 Nursing Skills |  | 3 |
| 10-543-103 Nursing Pharmacology |  | 2 |
| 10-543-104 Nsg: Intro to Clinical Practice |  | 2 |
| 10-806-177 Gen Anatomy \& Physiology |  | 4 |
|  | Credits | 13 |
| Winter |  |  |
| Courses taken at NWTC |  |  |
| 10-809-172 Intro to Diversity Studies |  | 3 |
| 连 | Credits | 3 |



## Traditional 4yr Nursing

An example: Four year plan for traditional Nursing Major 120 credits necessary to graduate. Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| First Year Seminar |  | 3 |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes | 4 |
| CHEM 207 | Laboratory Safety | 1 |
| MATH 101 | Advanced Algebra | 2 |
| PSYCH 203 | Introduction to Lifespan Development | 3 |


| WF 100 | First Year Writing | 3 |
| :---: | :---: | :---: |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 108 <br> \& CHEM 109 | Survey of General, Organic and Biochemistry and Survey of General, Organic, and Biochemistry Laboratory | 4 |
| HUM BIOL 240 | Anatomy and Physiology | 4 |
| HUM BIOL 241 | Anatomy and Physiology Lab | 1 |
| PSYCH 102 | Introduction to Psychology | 3 |
| WF 105 | Research and Rhetoric | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| BIOLOGY 323 | Principles of Microbiology | 3 |
| BIOLOGY 324 | Principles of Microbiology Laboratory | 1 |
| COMM choose one |  |  |
| NUT SCI 202 or NUT SCI 250 | Ethnic Influences on Nutrition or World Food and Population Issues | 3 |
| PSYCH 205 | Social Science Statistics | 4 |
| PSYCH 343 | Adult Development and Aging | 3 |
|  | Credits | 14 |
| Spring |  |  |
| NURSING 240 | Introduction to Professional Nursing Concepts | 2 |
| NURSING 250 | Communicating and Managing Healthcare Information | 2 |
| NURSING 270 | Basic \& Intermediate Nursing Skills and Simulation | 2 |
| NURSING 280 | Pathophysiology Concepts for Nursing Practice | 3 |
| NURSING 290 | Foundations of Nursing Practice: Practicum/Experiential Learning | 2 |
| NURSING 305 | Healthy Aging and Chronic Care Management | 3 |
| Gen Ed or Nursing support (SOC SCI) |  | 3 |
|  | Credits | 17 |
| Junior |  |  |
| Fall |  |  |
| NURSING 300 | Pharmacology for Nursing Practice | 3 |
| NURSING 320 | Health \& Illness Concepts I | 3 |
| NURSING 331 \& NURSING 332 | Health \& Illness Concepts I: Advanced Nursing Skills/Simulation and Health \& IIIness Concepts I: Practicum | 3 |
| NURSING 340 | Quality Improvement | 2 |
| Gen Ed or Nursing Support (HUM) |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| NURSING 350 | Professional Development I: Nursing Theory, Image and Ethics | 3 |
| NURSING 360 | Health \& IIIness Concepts II | 3 |
| NURSING 370 | Evidence-Based Practice: Translating Research to Practice | 2 |
| NURSING 380 | Alterations in Health \& IIIness II: Practicum/Simulation | 2 |
| NURSING 390 | Leadership for Sustainable Healthcare: Health Disparities, Health Equity, \& the Nursing Profession | 3 |
| Gen Ed or Nursing Support (ETS or GC) |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| NURSING 400 | Nursing Care of the Childbearing Family | 3 |
| NURSING 410 | Behavioral Health Care Management | 3 |
| NURSING 420 | Nursing with Diverse Populations Practicum | 2 |
| NURSING 430 | Population/Community Health Nursing Theory | 3 |
| NURSING 440 | Population/Community Health Nursing Practicum | 1 |
| Gen Ed or Nursing Support (FA) |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| NURSING 450 | Health \& Illness Concepts III: Complex Care | 3 |
| NURSING 461 | Care Transitions Practicum Immersion | 4 |
| NURSING 470 | Professional Development: Navigating the Nursing Profession | 2 |
| NURSING 480 | Leadership: Nursing in an Evolving Healthcare System | 3 |

## RN-BSN Completion

## Areas of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- RN-BSN Completion
- Accelerated RN-BSN Completion with graduate MSN Leadership program


## RN-BSN Completion

The RN-BSN Baccalaureate program prepares the graduate to:

1. Use knowledge from liberal and interdisciplinary problem focused education as a basis for nursing practice.
2. Use knowledge and skills in leadership, quality improvement and patient safety to provide high quality healthcare.
3. Engage in a systematic process of evaluation, translation, and application of scientific evidence to inform nursing practice.
4. Recognize the role of information management and patient care technologies to improve patient care outcomes.
5. Examine how healthcare policies, including financial and regulatory, influence healthcare systems and nursing practices.
6. Integrate interprofessional communication and collaborative skills to optimize holistic patient care.
7. Apply health promotion, disease and injury prevention strategies to improve population health.
8. Promote professionalism and model the values of altruism, autonomy, caring, human dignity, integrity and social justice in nursing practice.
9. Synthesize previous and newly acquired knowledge, theory, skills, and attitudes to address health care needs of culturally diverse individuals and populations across the continuum of healthcare environments.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Nursing Support |  | 18-20 |
| Therapeutic Nursing Intervention Electives (6 credits) |  |  |
| ACCTG 201 | Principles of Financial Accounting |  |
| ANTHRO 100 | Varieties of World Culture |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| COMM 335 | Organizational Communication |  |
| ENV SCI 102 | Introduction to Environmental Sciences |  |
| NUT SCI 300 | Human Nutrition |  |
| PSYCH 331 | Infancy and Early Childhood Development |  |
| PSYCH 332 | Middle Childhood and Adolescent Development |  |
| PSYCH 343 | Adult Development and Aging |  |
| PSYCH 344 | Dying, Death, and Loss |  |
| PSYCH 429 | Theories of Personality |  |
| PSYCH 435 | Psychopathology |  |
| PSYCH 438 | Counseling and Psychotherapy |  |
| SOCIOL 308 | Sociology of the Family |  |
| SPANISH 101 | Introduction to the Spanish Language I |  |
| Communication (choose 1 course): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Statistics (choose 1 course): |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| HIMT 350 | Statistics for Healthcare |  |
| MATH 260 | Introductory Statistics |  |


| PSYCH 205 | Social Science Statistics |  |
| :---: | :---: | :---: |
| Chemistry (choose one): |  |  |
| CHEM 108 | Survey of General, Organic and Biochemistry |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| Critical Thinking Elective (choose 1 course): ${ }^{2}$ |  |  |
| BUS ADM 206 | Law and the Individual |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| FNS 385 | First Nations Intellectual Traditions |  |
| HUM BIOL 205 | Biotechnology and Human Values |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| INFO SCI 210 | Information Problems |  |
| PHILOS 101 | Introduction to Philosophy |  |
| PHILOS 102 | Contemporary Ethical Issues |  |
| PHILOS 105 | Is Morality for Sale? |  |
| PHILOS 208 | Biomedical Ethics |  |
| PHILOS 212 | Philosophy, Religion, and Science |  |
| PHILOS 213 | Ancient Philosophy |  |
| PHILOS 214 | Early Modern Philosophy |  |
| PHILOS 217 | Introduction to the Philosophy of Religion |  |
| PUB ADM 202 | Introduction to Public Policy |  |
| Upper-Level Nursing |  | 30 |
| Required |  |  |
| NURSING 407 | Foundations of Professional Nursing Practice |  |
| NURSING 441 | Chronic Care Management |  |
| NURSING 446 | Research and Evidence-Based Practice |  |
| NURSING 447 | Leadership and Management |  |
| NURSING 453 | Information Management and Healthcare Technology |  |
| NURSING 454 | Community Health Nursing |  |
| NURSING 455 | Community Health Nursing Practicum |  |
| NURSING 490 | Synthesis for Nursing Practice |  |
| NURSING 492 | Special Topics in Nursing (Repeatable; 2 topics required; 6 credits total) |  |

## Total Credits

1 May be satisfied per Nursing Articulation Agreement
2 Critical thinking elective can be satisfied by certain humanities courses such as philosophy, or taken as a separate course.

## Accelerated RN-BSN Completion with graduate MSN Leadership program

The Accelerated RN-BSN Baccalaureate program prepares the graduate to:

1. Use knowledge from liberal and interdisciplinary problem focused education as a basis for nursing practice.
2. Use knowledge and skills in leadership, quality improvement and patient safety to provide high quality healthcare.
3. Engage in a systematic process of evaluation, translation, and application of scientific evidence to inform nursing practice.
4. Recognize the role of information management and patient care technologies to improve patient care outcomes.
5. Examine how healthcare policies, including financial and regulatory, influence healthcare systems and nursing practices.
6. Integrate interprofessional communication and collaborative skills to optimize holistic patient care.
7. Apply health promotion, disease and injury prevention strategies to improve population health.
8. Promote professionalism and model the values of altruism, autonomy, caring, human dignity, integrity and social justice in nursing practice.
9. Synthesize previous and newly acquired knowledge, theory, skills, and attitudes to address health care needs of culturally diverse individuals and populations across the continuum of healthcare environments.

| Code | Title |  |
| :---: | :---: | :---: |
| Nursing Support |  | 18-20 |
| Therapeutic Nursing Intervention Electives (choose 6 credits): |  |  |
| ACCTG 201 | Principles of Financial Accounting |  |
| ANTHRO 100 | Varieties of World Culture |  |
| BUS ADM 202 | Introduction to Business |  |
| BUSAN 230 | Spreadsheet and Information Systems |  |
| COMM 335 | Organizational Communication |  |
| ENV SCI 102 | Introduction to Environmental Sciences |  |
| HUM BIOL 342 | Human Evolution |  |
| NUT SCI 300 | Human Nutrition |  |
| PSYCH 331 | Infancy and Early Childhood Development |  |
| PSYCH 332 | Middle Childhood and Adolescent Development |  |
| PSYCH 343 | Adult Development and Aging |  |
| PSYCH 344 | Dying, Death, and Loss |  |
| PSYCH 429 | Theories of Personality |  |
| PSYCH 435 | Psychopathology |  |
| PSYCH 438 | Counseling and Psychotherapy |  |
| SOCIOL 308 | Sociology of the Family |  |
| SPANISH 101 | Introduction to the Spanish Language I |  |
| Communication (choose 1 course): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Statistics (choose one course): |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| HIMT 350 | Statistics for Healthcare |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Chemistry (choose 1 course): ${ }^{2}$ |  |  |
| CHEM 108 | Survey of General, Organic and Biochemistry |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| Critical Thinking Elective (choose one course): ${ }^{3}$ |  |  |
| BUS ADM 206 | Law and the Individual |  |
| COMM 201 | Human Information Processing |  |
| ECON 202 | Macro Economic Analysis |  |
| ECON 203 | Micro Economic Analysis |  |
| FNS 385 | First Nations Intellectual Traditions |  |
| HUM BIOL 205 | Biotechnology and Human Values |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| INFO SCI 210 | Information Problems |  |
| PHILOS 101 | Introduction to Philosophy |  |
| PHILOS 102 | Contemporary Ethical Issues |  |
| PHILOS 105 | Is Morality for Sale? |  |
| PHILOS 111 | Elementary Logic |  |
| PHILOS 208 | Biomedical Ethics |  |
| PHILOS 210 | Philosophy of Culture |  |
| PHILOS 212 | Philosophy, Religion, and Science |  |
| PHILOS 213 | Ancient Philosophy |  |
| PHILOS 214 | Early Modern Philosophy |  |



## Organizational Leadership

## (Bachelor of Arts or Bachelor of Applied Studies)

Organizational leadership crosses disciplinary, organizational, community, and cultural boundaries and teaches students how to contribute as citizens in a complex, multi-cultural world. Program graduates are well-positioned to embark on new careers or further study in multiple fields, or to advance in their current careers. Organizational Leadership upper-level core coursework (18 credits) introduces students to the major theories and models of leadership, with a focus on how to use these theories and models to transform leadership in practice. Students also develop fundamental leadership skills such as communication, human resources management, financial management, and applied organizational research.

The Bachelor of Arts degree (B.A.) is suitable for:

- Students who already have an Associate of Arts \& Sciences degree
- Students who have taken a few college courses and wish to transfer in some credits
- Students who are beginning college and select Organizational Leadership as their major

The Bachelor of Applied Studies degree (B.A.S.) requires that a student have an Applied Associate Degree. Students accepted into this program will be able to transfer coursework from any Wisconsin Technical College System campus and enter the University as juniors. Students then complete enough additional credits to satisfy UW-Green Bay general education requirements, requirements for the Organizational Leadership major, and all other degree requirements.

## Learning Outcomes for the Organizational Leadership Major

1. Apply the principles and practices of leadership to interact positively with a wide range of individuals, groups, organizations, and communities.
2. Apply tools of leaders such as financial and risk management, organizational research/assessment, negotiation, planning, and communication strategies.
3. Use data and research to think critically and creatively about strategic opportunities and challenges to help organizations adapt effectively to changing contexts.
4. Understand and apply approaches to collaborating with individuals and groups to promote effective organizations.
5. Practice engaged, ethical, and socially responsible leadership in the context of social, cultural, and global diversity.


## Areas of Emphasis (p. 314)

A unique feature of the Organizational Leadership major is the choice of an area of emphasis, which typically consists of four or five courses (12-18 credits) in a student's preferred area of focus. Areas of Emphasis include: (p. 314)

- Applied Communication (p. 314)
- Business Administration (p. 314)
- Criminal Justice Administration (p. 314)
- Early Childhood Education (p. 314)
- Emergency Management, Planning, and Administration (p. 314)
- Environmental Policy \& Planning (p. 314)
- Management in Health Systems (p. 314)
- Public and Nonprofit Management (p. 314)
- Rising Leadership (p. 314)
- Self-Directed (must be approved by Program Chair/Coordinator) (p. 314)


## Minor

| Code | Title |
| :--- | :--- |
| Supporting Courses <br> ORG LEAD 198 | Introduction to Leadership |
| Choose one: | Introduction to Communication |
| COMM 102 | Fundamentals of Public Address |
| COMM 133 | Fundamentals of Interpersonal Communication |
| COMM 166 | Small Group Communication |
| COMM 237 |  |
| Upper-Level Courses | Organizational Research and Statistics |
| ORG LEAD 346 | Budgeting and Financial Management |
| ORG LEAD 347 | Leadership in Organizations |
| PUB ADM 344 | Human Resource and Risk Management |
| PUB ADM 345 |  |
| Choose $\mathbf{~ o n e : ~}$ | Organizational Behavior |
| MGMT 389 |  |

## Total Credits

## Faculty

Patricia Hicks; Teaching Professor; Ed.D., Cardinal Stritch University

Kerry Kuenzi; Associate Professor; Ph.D., University of Colorado

## Organizational Leadership Major

## Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Applied Communication
- Business Administration
- Criminal Justicie Administration
- Early Childhood Education
- Emergency Management, Planning, and Administration
- Environmental Policy \& Planning
- Management in Health Systems
- Public and Nonprofit Management
- Rising Leadership
- Self-Directed (must be approved by Program Chair/Coordinator)


## Applied Communication

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| ORG LEAD 198 | Introduction to Leadership |  |
| Communication Skills (choose 2 courses): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 185 | Business and Media Writing |  |
| COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 18 |
| Required Courses: |  |  |
| ORG LEAD 346 | Organizational Research and Statistics |  |
| ORG LEAD 347 | Budgeting and Financial Management |  |
| ORG LEAD 400 | Organizational Leadership Capstone |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| Choose one: |  |  |
| MGMT 389 | Organizational Behavior |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| Applied Communication Electives: |  | 12 |
| Choose 12 credits of 300/400-level COMM courses |  |  |
| Total Credits |  | 39 |

## Business Administration

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses | Introduction to Business | 9 |
| BUS ADM 202 | Introduction to Leadership |  |
| ORG LEAD 198 |  |  |


| Communication Skills (choose one): |  |
| :--- | :--- |
| COMM 102 | Introduction to Communication |
| COMM 133 | Fundamentals of Public Address |
| COMM 166 | Fundamentals of Interpersonal Communication |
| COMM 237 | Small Group Communication |
| Upper-Level Courses |  |
| Required Courses: | Leadership in Organizations |
| PUB ADM 344 | Human Resource and Risk Management |
| PUB ADM 345 | Organizational Research and Statistics |
| ORG LEAD 346 | Budgeting and Financial Management |
| ORG LEAD 347 | Organizational Leadership Capstone |
| ORG LEAD 400 |  |
| Choose one: | Organizational Behavior |
| MGMT 389 | Organizational Behavior Across Sectors |
| ORG LEAD 348 | Small Business Management \& Family Entrepreneurship |
| Business Administration Emphasis: (Choose 4 courses) |  |
| ENTRP 481 | Leadership Development |
| MGMT 472 | Organizational Culture \& Design |
| MGMT 479 | Project Management |
| SCM 380 | Supply Chain Management |
| SCM 384 | $\mathbf{1 2 - 1 3}$ |

Total Credits

## Criminal Justice Administration

| Code | Title | Credits |
| :---: | :---: | :---: |
| Organizational Leadership Core |  |  |
| Supporting Courses |  | 6 |
| ORG LEAD 198 | Introduction to Leadership |  |
| Communication Skills (choose one course): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 30 |
| Required Courses: |  |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| ORG LEAD 346 | Organizational Research and Statistics |  |
| ORG LEAD 347 | Budgeting and Financial Management |  |
| ORG LEAD 400 | Organizational Leadership Capstone |  |
| Choose one of the following: |  |  |
| ORG LEAD 348 or MGMT 389 | Organizational Behavior Across Sectors Organizational Behavior |  |
| Crimeinal Justice Administration Emphasis |  |  |
| Required Course |  |  |
| POL SCI 322 | Politics of Crime and Punishment |  |
| Elective Courses (choose 3 courses) |  |  |
| POL SCI 361 | Immigration and Immigration Policy |  |
| SOCIOL 304 | Deviant Behavior |  |
| SOCIOL 315 | Street Gangs in America |  |
| SOCIOL 316 | Criminal Justice Systems, Administration, and Processes |  |
| SOCIOL 404 | Criminology |  |


| PHILOS 326 | Philosophy, Politics and Law |
| :--- | :--- |
| EPP 379 | Natural Resources Policy, Law, and Administration |

## Total Credits

## Early Childhood Education


Total Credits ..... 42
Emergency Management

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ORG LEAD 198 | Introduction to Leadership |
| Communication Skills (choose one): |  |
| COMM 102 | Introduction to Communication |
| COMM 133 | Fundamentals of Public Address |
| COMM 166 | Fundamentals of Interpersonal Communication |
| COMM 237 | Small Group Communication |
| Upper-Level Courses |  |
| Required Courses: | Organizational Research and Statistics |
| ORG LEAD 346 | Budgeting and Financial Management |
| ORG LEAD 347 | Organizational Leadership Capstone |
| ORG LEAD 400 | Leadership in Organizations |
| PUB ADM 344 | Human Resource and Risk Management |
| PUB ADM 345 | Organizational Behavior |
| Choose one: | Organizational Behavior Across Sectors |
| MGMT 389 |  |


| Emergency Management Emphasis (choose $\mathbf{1 2}$ credits): |  |
| :--- | :--- |
| PUB ADM 335 | Principles and Practices of Emergency Management |
| PUB ADM 336 | Strategic Emergency Preparedness, Planning and Implementation |
| PUB ADM 337 | Disaster Response Operations and Management |
| PUB ADM 338 | Disaster Recovery |
| PUB ADM 339 | Political and Policy Dimensions of Emergency Management |

## Total Credits

## Environmental Policy \& Planning

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| EPP 102 | Environment and Society |  |
| ORG LEAD 198 | Introduction to Leadership |  |
| Communication Skills (choose one): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 18 |
| Required Courses: |  |  |
| ORG LEAD 346 | Organizational Research and Statistics |  |
| ORG LEAD 347 | Budgeting and Financial Management |  |
| ORG LEAD 400 | Organizational Leadership Capstone |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| Choose one: |  |  |
| MGMT 389 | Organizational Behavior |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| Environmental Policy and Planning (choose 4 courses): |  | 12 |
| EPP 323 | Sustainable Land Use |  |
| EPP 324 | Transitioning to Sustainable Communities |  |
| GEOG 321 | Coastal Resources Policy and Management |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| PUB ADM 408 | Public Policy Analysis |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |
| PUB ADM 497 | Internship |  |

Total Credits

## Management in Health Systems

| Code | Title |
| :--- | :--- |
| Supporting Courses  <br> ORG LEAD 198 Introduction to Leadership <br> Communication Skills (choose one):  <br> COMM 102 Introduction to Communication <br> COMM 133 Fundamentals of Public Address <br> COMM 166 Fundamentals of Interpersonal Communication <br> COMM 237 Small Group Communication <br> Upper-Level Courses  <br> Required Courses:  <br> ORG LEAD 346 Organizational Research and Statistics <br> ORG LEAD 347 Budgeting and Financial Management <br> ORG LEAD 400 Organizational Leadership Capstone |  |


| PUB ADM 344 | Leadership in Organizations |
| :--- | :--- |
| PUB ADM 345 | Human Resource and Risk Management |
| Choose one : |  |
| MGMT 389 | Organizational Behavior |
| ORG LEAD 348 | Organizational Behavior Across Sectors |
| Healthcare Management Emphasis: |  |
| HLTH MGT 301 | Health Care Systems |
| HLTH MGT 302 | Healthcare Management |
| HLTH MGT 401 | Healthcare Economics \& Policy |
| HLTH MGT 402 | Population Healthcare Management |

Total Credits

## Public and Nonprofit Management

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9 |
| ORG LEAD 198 | Introduction to Leadership |  |
| PUB ADM 215 | Introduction to Public Administration |  |
| Communication Skills (choose one): |  |  |
| COMM 102 | Introduction to Communication |  |
| COMM 133 | Fundamentals of Public Address |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| COMM 237 | Small Group Communication |  |
| Upper-Level Courses |  | 18 |
| Required Courses: |  |  |
| ORG LEAD 346 | Organizational Research and Statistics |  |
| ORG LEAD 347 | Budgeting and Financial Management |  |
| ORG LEAD 400 | Organizational Leadership Capstone |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| Choose one |  |  |
| MGMT 389 | Organizational Behavior |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| Public and Nonprofit Management Emphasis (choose 12 credits): |  | 12 |
| PUB ADM 315 | Public and Non-Profit Management |  |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving |  |
| PUB ADM 407 | Service in the Public Sector |  |
| PUB ADM 408 | Public Policy Analysis |  |
| PUB ADM 415 | Public and Nonprofit Budgeting |  |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |
| PUB ADM 497 | Internship |  |

## Total Credits

## Rising Leadership

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| ORG LEAD 198 | Introduction to Leadership |
| Choose one: |  |
| COMM 102 | Introduction to Communication |
| COMM 133 | Fundamentals of Public Address |
| COMM 166 | Fundamentals of Interpersonal Communication |
| COMM 237 | Small Group Communication |


| Upper-Level Courses |  |
| :--- | :--- |
| Required: | Leadership in Organizations |
| PUB ADM 344 | Human Resource and Risk Management |
| PUB ADM 345 | Organizational Research and Statistics |
| ORG LEAD 346 | Budgeting and Financial Management |
| ORG LEAD 347 | Organizational Leadership Capstone |
| ORG LEAD 400 |  |
| Choose one: | Organizational Behavior |
| MGMT 389 | Organizational Behavior Across Sectors |
| ORG LEAD 348 | Rising Leadership |
| Rising Leadership Emphasis | Gender \& Equity in Organizational Leadership |
| ORG LEAD 301 | Sociological Perspectives on Gender |
| ORG LEAD 302 | Gender in Popular Culture |
| SOCIOL 238 | Introduction to Women's, Gender, and Sexuality Studies |
| WOST 203 |  |

Total Credits

## Self-Directed



Total Credits

## Personal Financial Planning

A CFP Board Registered Approved program that prepares students for the financial planning profession to help future financial planning clients maximize life goals through financial advice. This program satisfies the educational requirements for students to be eligible to sit for the Certified Financial Planner ${ }^{T M}$ exam. The program includes the planning domains of personal financial planning fundamentals and planning skills across retirement savings \& income planning, tax \& estate, household risk management \& insurance, and financial plan development. This program helps students develop professional ethics and client communication skills that are particular to financial planning.

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6-7 |
| ACCTG 201 | Principles of Financial Accounting |  |
| Statistics (Choose One): |  |  |
| BUSAN 220 <br> or MATH 260 <br> or PSYCH 205 | Introduction to Business Statistics Introductory Statistics Social Science Statistics |  |
| Upper-level Courses |  | 24 |
| ACCTG 410 | Introduction to Income Tax Theory and Practice |  |
| FIN 282 | Personal Financial Planning |  |
| FIN 343 | Corporation Finance |  |
| FIN 345 | Risk Management and Insurance |  |
| FIN 415 | Employee Benefits and Retirement Planning |  |
| FIN 425 | Estate and Trust Planning |  |
| FIN 442 | Principles of Investment |  |
| FIN 475 | Financial Plan Development |  |

Total Credits

## Faculty

Rasoul Rezvanian; Professor; Ph.D., Southern Illinois University
Karl Schindl; Professor; M.S., Northern Illinois University, chair
Thomas S Nesslein; Associate Professor; Ph.D., University of Washington - Seattle
Matthew Raunio; Associate Professor; M.B.A., University of Wisconsin - Oshkosh
Mussie M Teclezion; Associate Professor; D.B.A., Southern Illinois University at Carbondale
Zhuoli Axelton; Assistant Professor; Ph.D., Washington State University
Preston Cherry; Assistant Professor; Ph.D., Texas Tech University
Heather Kaminski; Assistant Professor; D.B.A., Anderson University
Eu Jin Kwak; Assistant Professor; Ph.D., University of Georgia*
Grace (Fangjun) Sang; Assistant Professor; Ph.D., Kent State
Kevin Jaklin; Assistant Teaching Professor; M.B.A., University of Wisconsin - Oshkosh

## Philosophy

(Bachelor of Arts)
The study of philosophy increases our appreciation and awareness of the deep intellectual, ethical, logical, and aesthetic structure of our world. The discipline of philosophy, like mathematics, economics and chemistry, embodies formal thought, structural relationships, abstract models, symbolic languages, and deductive methods. Students who develop these skills develop a perspective which allows them to better address problems squarely, think through and devise deep and creative solutions, and better address and overcome unpredictable circumstances in life.

Philosophy students routinely score better than nearly all other majors on the Graduate Record Exam, GMAT and LSAT. This is not surprising, given that Philosophy students are taught how to read well and carefully difficult texts, how to extract and evaluate complex ideas and arguments, and how to express their own reasoning about these ideas in an articulate and detailed manner.

The true virtue of an education in philosophy, however, extends beyond the domain of personal and academic skills.
As the global community continues to shrink and corporate America restructures, careers will increasingly demand employees who can think critically, disclose hidden assumptions and values, formulate problems clearly, and discern the impact of ideas. Philosophy students are looked upon as assets
to companies and organizations in a wide array of fields, including business, health care, politics, and higher education. The mental acuity and flexibility provided by a background in philosophy prepares our students well for the career challenges of their future.

Our undergraduate program in Philosophy is designed to complement the strengths of other programs and disciplines at UW-Green Bay.

## A degree in Philosophy should help students realize the following aims:

1. Be familiar with the history of philosophical thought and able to identify the dominant figures and issues in the ancient, medieval, early modern and modern philosophical eras.
2. Be able to articulate and think carefully through questions about the structure and nature of reality, our place within it, and how we ought to act.
3. Be able to interpret and extract an author's arguments from a text and to offer novel, substantive commentary on philosophical positions.
4. Be able to offer a balanced and fair evaluation of major philosophical figures and issues in writing and public presentation.
5. Be able to compose and deliver to an audience a clear and cogent philosophical argument in defense of their preferred position.

## Major

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| PHILOS 213 | Ancient Philosophy |
| or PHILOS 214 | Early Modern Philosophy |
| Choose two of the following courses: |  |
| PHILOS 101 | Introduction to Philosophy |
| PHILOS 102 | Contemporary Ethical Issues |
| PHILOS 103 | Logic and Reasoning |
| PHILOS 105 | Is Morality for Sale? |
| PHILOS 208 | Biomedical Ethics |
| PHILOS 211 | Philosophy of Art |
| PHILOS 212 | Philosophy, Religion, and Science |
| PHILOS 213 | Ancient Philosophy |
| PHILOS 214 | Early Modern Philosophy |
| PHILOS 216 | Introduction to Asian Philosophy |
| PHILOS 217 | Introduction to the Philosophy of Religion |
| PHILOS 220 | Environmental Ethics |
| PHILOS 227 | Business Ethics |

History of Philosophy (Choose two courses):

| PHILOS 309 | Religion and Medieval Philosophy |
| :--- | :--- |
| PHILOS 323 | Modern Philosophy |
| PHILOS 324 | Contemporary Philosophy |
| PHILOS 401 | Plato and Aristotle |

Philosophical Issues (Choose two courses):
PHILOS 301 Ethical Theory

PHILOS 308 Philosophy and the Sciences
PHILOS 326 Philosophy, Politics and Law
PHILOS 420 Metaphysics
Choose four additional upper-level elective courses from those listed above, including:
PHILOS 403 Topics in Philosophy
Total Credits

## Minor

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| PHILOS 213 | Ancient Philosophy |
| or PHILOS 214 | Early Modern Philosophy |

Choose two of the following courses:

| PHILOS 101 | Introduction to Philosophy |
| :--- | :--- |
| PHILOS 102 | Contemporary Ethical Issues |
| PHILOS 103 | Logic and Reasoning |
| PHILOS 105 | Is Morality for Sale? |
| PHILOS 208 | Biomedical Ethics |
| PHILOS 212 | Philosophy, Religion, and Science |
| PHILOS 213 | Ancient Philosophy |
| PHILOS 214 | Early Modern Philosophy |
| PHILOS 216 | Introduction to Asian Philosophy |
| PHILOS 217 | Environmental Ethics |
| PHILOS 220 | Business Ethics |
| PHILOS 227 |  |
| Uppr-Level Courses | Religion and Medieval Philosophy |
| History of Philosophy (Choose one course): |  |
| PHILOS 309 | Modern Philosophy |
| PHILOS 323 | Contemporary Philosophy |
| PHILOS 324 | Plato and Aristotle |
| PHILOS 401 | Topics in Philosophy (If content is historical rather than topical) |
| PHILOS 403 | Independent Study (If content is historical rather than topical) |

## Total Credits

1 PHILOS 498 courses are created and faculty approved and identified as a topical or historical content course substitution to the respective academic requirements in the Student Information System.

## Curriculum Guide

The following is a curriculum guide for a four-year Philosophy degree program and is subject to change without notice. Students should consult a Philosophy program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Philosophy Major
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| PHILOS 101 | Introduction to Philosophy | 3 |
| PHILOS 213 | Ancient Philosophy | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PHILOS 214 | Early Modern Philosophy | 3 |
| PHILOS 212 | Philosophy, Religion, and Science | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |


| Elective |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| PHILOS 309 | Religion and Medieval Philosophy | 3 |
| PHILOS 102 | Contemporary Ethical Issues | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 12 |
| Spring |  |  |
| PHILOS 301 | Ethical Theory | 3 |
| PHILOS 308 | Philosophy and the Sciences | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| PHILOS 401 | Plato and Aristotle | 3 |
| PHILOS 323 | Modern Philosophy | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PHILOS 326 | Philosophy, Politics and Law | 3 |
| PHILOS 403 | Topics in Philosophy | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| PHILOS 420 | Metaphysics | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PHILOS 403 | Topics in Philosophy | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 117 |

## Faculty

Derek S Jeffreys; Professor; Ph.D., University of Chicago
Hye-Kyung Kim; Professor; Ph.D., Marquette University, Chair
Alexander (Xan) Bozzo: Assistant Teaching Professor, Marquette University

## Physics

Physics is the study of matter and energy, and their interactions in the areas of mechanics, heat, sound, optics, electricity, magnetism, radiation, and the atomic and sub-atomic world. Physics provides students with concepts and models for describing, understanding, and predicting many characteristics
and phenomena of physical and biological systems. As such, it provides the foundation for many other sciences such as chemistry, astronomy, biology, geology, engineering, and medicine.

A minor in Physics is an appropriate choice for students pursuing majors in Environmental Science and Human Biology. It is also a good choice for students who plan to teach at the secondary level because there is a chronic shortage of qualified physics teachers.

Students seeking information on teacher certification should contact the Education Office.

## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 18 |
| MATH 202 | Calculus and Analytic Geometry I |  |
| MATH 203 | Calculus and Analytic Geometry II |  |
| PHYSICS 201 | Principles of Physics I |  |
| PHYSICS 202 | Principles of Physics II |  |
| PHYSICS 203 | Introductory Physics Lab I |  |
| PHYSICS 204 | Introductory Physics Lab II |  |
| Upper-Level Courses |  | 12 |
| PHYSICS 310 | Modern Physics |  |
| Elective Courses (choose a minimum of 9 credits from the following): |  |  |
| CHEM 320 | Thermodynamics and Kinetics |  |
| CHEM 321 | Structure of Matter |  |
| CHEM 322 | Thermodynamics and Kinetics Laboratory |  |
| CHEM 323 | Structure of Matter Laboratory |  |
| ENGR 348 | Electromagnetic Fields and Applications |  |
| ENV SCI 415 | Solar and Alternate Energy Systems |  |
| ET 318 | Fluid Power Systems |  |
| ET 324 | Motors and Drives |  |
| MATH 410 | Complex Analysis |  |
| MATH 425 | Dynamical Systems |  |
| PHYSICS 404 | Electricity and Magnetism |  |
| PHYSICS 417 | Nuclear Physics and Radiochemistry |  |
| PHYSICS 420 | Advanced Physics Laboratory |  |

Total Credits
Faculty
Heidi S Fencl; Professor; Ph.D., The Ohio State University
Michael Hencheck; Associate Professor; Ph.D., The Ohio State University, Chair
Brian Welsch; Assistant Professor; Ph.D., Montana State University

## Political Science

## (Bachelor of Arts)

Political Science is concerned with the systematic study of political behavior, governmental institutions and policy-making processes, public policies and their implementation, and political values in local, state, national, cross-national and international settings.

The program acquaints students with the structure and operation of political systems; the cultural, social, economic, and ideological context of these systems; the major philosophical questions and relevance to understanding modern political phenomena; and the major methods of inquiry and analysis used in the contemporary study of politics, government and public policy.

Political Science is a major often chosen by students who plan to attend law school. It is useful as well for students anticipating careers in journalism, planning, education, business, foreign service, politics, and public service positions with private and public agencies at the local, state, regional, federal, and international levels.

Political Science majors have entered graduate study in political science, public administration, education, and related fields. Many students choose complimentary minors, such as Public Administration, Urban and Regional Studies, Environmental Policy and Planning, Communication, Democracy and Justice Studies, and Business Administration.

Students seeking information on teacher certification should contact the Education Office.

## Major Area of Emphasis (p. 327)

Students must complete requirements in one of the following areas of emphasis: (p. 327)

- General (p. 327) Political Science
- Social Studies Education (p. 327)


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| Choose two of the following: |  |  |
| POL SCI 100 | Global Politics and Society |  |
| POL SCI 101 | American Government and Politics |  |
| PUB ADM 202 | Introduction to Public Policy |  |
| PUB ADM 215 | Introduction to Public Administration |  |
| Upper-Level Courses |  | 12 |
| Choose four of the following: |  |  |
| DJS 320 | Constitutional Law |  |
| DJS 348 | Gender and the Law |  |
| GERMAN 358 | German Politics and Society |  |
| HISTORY 334 | Contemporary Europe |  |
| POL SCI 305 | Urban Politics and Policy |  |
| POL SCI 310 | The American Presidency |  |
| POL SCI 312 | Community Politics |  |
| POL SCI 316 | Congress: Politics and Policy |  |
| POL SCI 318 | Political Behavior |  |
| POL SCI 333 | Political Science Research Lab |  |
| POL SCI 340 | Political Theory |  |
| POL SCI 349 | American Political Thought |  |
| POL SCI 351 | Comparative Politics |  |
| POL SCI 353 | Politics of Developing Areas |  |
| POL SCI 360 | International Relations |  |
| POL SCI 361 | Immigration and Immigration Policy |  |
| POL SCI 370 | Foreign and Defense Policies |  |
| POL SCI 380 | Global Environmental Politics and Policy |  |
| POL SCI 406 | State and Local Government |  |
| POL SCI 497 | Internship |  |
| POL SCI 498 | Independent Study |  |
| POL SCI 499 | Travel Course |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| PUB ADM 306 | Regulatory Policy and Administration |  |
| PUB ADM 314 | Administrative Law |  |
| PUB ADM 408 | Public Policy Analysis |  |
| POL SCI 322 | Politics of Crime and Punishment |  |

## Total Credits

## Curriculum Guide

The following is only an example of a four-year Political Science degree program and is subject to change without notice. Students should consult a Political Science program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Political Science Major; Minor in Public Administration
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| POL SCI 101 | American Government and Politics | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| POL SCI 100 | Global Politics and Society | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| BUSAN 220 or PSYCH 205 or MATH 260 | Introduction to Business Statistics or Social Science Statistics or Introductory Statistics | 3 |
| POL SCI 340 | Political Theory | 3 |
| PUB ADM 202 | Introduction to Public Policy | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| POL SCI 351 | Comparative Politics | 3 |
| PUB ADM 215 | Introduction to Public Administration | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| DJS 320 | Constitutional Law | 3 |
| POL SCI 318 | Political Behavior | 3 |
| PUB ADM 315 | Public and Non-Profit Management | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| POL SCI 316 | Congress: Politics and Policy | 3 |
| POL SCI 370 | Foreign and Defense Policies | 3 |
| POL SCI Upper Level Elective |  | 3 |
| Elective |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| PUB ADM 408 | Public Policy Analysis | 3 |
| POL SCI Upper Level Elective (c | ng toward Public Administration minor) | 3 |


| Elective | 3 |
| :---: | :---: |
| Elective | 3 |
| Elective | 3 |
| Credits | 15 |
| Spring |  |
| POL SCI Upper Level Elective (could include one counting toward Public Adminstration minor) | 3 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Elective | 3 |
| Credits | 15 |
| Total Credits | 120 |

## Faculty

Ekaterina M Levintova; Professor; Ph.D., Western Michigan University, chair
Aaron C Weinschenk; Professor; Ph.D., University of Wisconsin - Milwaukee*
Alise Coen; Associate Professor; Ph.D., University of Delaware
David J Helpap; Associate Professor; Ph.D., University of Wisconsin - Milwaukee*
Elizabeth E Wheat; Associate Professor; Ph.D., Western Michigan University*
Nolan Bennett; Assistant Professor; Ph.D., Cornell University

## Political Science Major

## Major Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- General Political Science
- Social Studies Education


## General Political Science

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| POL SCI 100 | Global Politics and Society |
| POL SCI 101 | American Government and Politics |
| Choose one: | Introduction to Public Policy |
| PUB ADM 202 | Introduction to Public Administration |
| PUB ADM 215 |  |
| Statistics (choose one): | Introduction to Business Statistics |
| BUSAN 220 | Social Science Statistics |
| MATH 260 |  |
| PSYCH 205 | Political Theory |
| Choose one: | American Political Thought |
| POL SCI 340 |  |
| POL SCI 349 | Comparative Politics |
| POL SCI 351 | Politics of Developing Areas |
| POL SCl 353 |  |
| Choose one: | International Relations |
| POL SCI 360 SCI 370 | Foreign and Defense Policies |
| Choose one: |  |


| POL SCI 316 | Congress: Politics and Policy |
| :--- | :--- |
| POL SCI 318 | Political Behavior |
| DJS 320 | Constitutional Law |

Choose 12 additional credits from the following list, not taken above:

| DJS 320 | Constitutional Law |
| :---: | :---: |
| DJS 325 | Law and Society |
| DJS 348 | Gender and the Law |
| GERMAN 358 | German Politics and Society |
| HISTORY 334 | Contemporary Europe |
| POL SCI 305 | Urban Politics and Policy |
| POL SCI 310 | The American Presidency |
| POL SCI 312 | Community Politics |
| POL SCI 316 | Congress: Politics and Policy |
| POL SCI 318 | Political Behavior |
| POL SCI 322 | Politics of Crime and Punishment |
| POL SCI 333 | Political Science Research Lab |
| POL SCI 349 | American Political Thought |
| POL SCI 353 | Politics of Developing Areas |
| POL SCI 360 | International Relations |
| POL SCI 361 | Immigration and Immigration Policy |
| POL SCI 370 | Foreign and Defense Policies |
| POL SCI 378 | Environmental Law |
| POL SCI 380 | Global Environmental Politics and Policy |
| POL SCI 406 | State and Local Government |
| POL SCI 480 | Senior Seminar/Capstone in Political Science |
| POL SCI 497 | Internship |
| POL SCI 498 | Independent Study |
| POL SCI 499 | Travel Course |
| PUB ADM 301 | Environmental Politics and Policy |
| PUB ADM 306 | Regulatory Policy and Administration |
| PUB ADM 314 | Administrative Law |
| PUB ADM 408 | Public Policy Analysis |

Total Credits

## Social Studies Education

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  |  |
| POL SCI 101 | American Government and Politics |  |
| HISTORY 207 | Introduction to African-American History |  |
| Choose one of the following: |  |  |
| POL SCI 100 | Global Politics and Society |  |
| HISTORY 101 | Foundations of Western Culture I |  |
| HISTORY 102 | Foundations of Western Culture II |  |
| HISTORY 103 | World Civilizations I |  |
| HISTORY 104 | World Civilizations II |  |
| FNS 374 | Wisconsin First Nations History |  |
| Choose one of the following: |  |  |
| HISTORY 205 | American History to 1865 |  |
| HISTORY 206 | History of the United States from 1865 to the Present |  |
| Quantitative Licensure Requirement (choose one) |  |  |
| PSYCH 205 | Social Science Statistics |  |
| MATH 100 | Math Appreciation |  |


| MATH 101 | Advanced Algebra |  |
| :---: | :---: | :---: |
| Required Content Courses |  | 15 |
| FNS 225 | Introduction to First Nations Studies |  |
| DJS 365 | U.S. Labor and the Working Class: Past and Present |  |
| POL SCI 406 | State and Local Government |  |
| Choose one of the follow |  |  |
| POL SCI 351 | Comparative Politics |  |
| HISTORY 423 | Topics in Modern European History (Nazi Germany (covers Holocaust)) |  |
| HISTORY 333 | Europe in the 20th Century |  |
| DJS 353 | The U.S. and the World |  |
| DJS 363 | Topics in Democracy and Justice |  |
| Choose one of the follow |  |  |
| HISTORY 220 | American Environmental History |  |
| HISTORY 326 | Global Environmental History |  |
| POL SCI 380 | Global Environmental Politics and Policy |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| Broadfield Requirements |  | 12 |
| $\begin{aligned} & \text { ECON } 202 \\ & \quad \text { or ECON } 203 \end{aligned}$ | Macro Economic Analysis Micro Economic Analysis |  |
| $\begin{aligned} & \text { PSYCH } 102 \\ & \text { or PSYCH } 203 \end{aligned}$ | Introduction to Psychology <br> Introduction to Lifespan Development |  |
| $\begin{aligned} & \text { SOCIOL } 101 \\ & \quad \text { or SOCIOL } 203 \\ & \text { or SOCIOL } 238 \end{aligned}$ | Introduction to Sociology <br> Ethnic and Racial Identities <br> Sociological Perspectives on Gender |  |
| SOCIOL 216 | Native American Landscapes:Imagined and Lived Spaces (or GEOG 200-level or higher) |  |
| Additional Political Science Disciplinary Courses |  | 6 |
| Choose any two additional POL SCI 300-level or higher courses |  |  |

Total Credits

## Psychology

## (Bachelor of Science)

Psychology is the systematic and scientific study of behavior and mental processes (e.g., memory, emotion). It seeks to explain how physiological, personal, cultural, social, developmental, and environmental conditions influence thought and action. Research aims to understand, predict, and influence behavior.

In the past century, psychology has moved from being a branch of philosophy to being both an experimental science and an active helping profession. Likewise, psychologists work in a variety of settings where their expertise in human behavior is applied to increase efficiency, assist in product design, improve work conditions, and more. To quote the American Psychological Association, "In every conceivable setting from scientific research centers to mental healthcare services, 'the understanding of behavior' is the enterprise of psychologists" (www.apa.org).

A strong grasp of psychology also requires knowledge of the approach and content of considered core to the field as a whole. Students gain this understanding by completing coursework in the primary areas of Psychology: Research Methods, Physiological/Cognitive, Social/Personality, Culture/Gender, and Clinical/Counseling. Students complete the major by choosing additional courses to meet individual needs with the help of their Professional Advisor. Students should consult with their Faculty Mentor about career planning and professional development.

The program offers special opportunities for qualified students to strengthen their professional preparation. Psychology faculty frequently work with students on collaborative research projects. Support for advanced student research is enhanced by technology in several research labs. Although all courses are taught by faculty members, undergraduate teaching assistantships allow students to master course content and receive valuable training in the teaching of psychology. Internships can be acquired in a variety of university and community settings.

Psychology helps to deepen understanding of individual and social behavior and provides a strong general background for many careers. Psychology graduates are employed in a variety of positions with their bachelor's degree, including in social and community service, business, research, and education-related fields from after-school programs to college admissions. Because of the wide range of possibilities, students should select courses and pursue applied experiences relevant to the occupational area of greatest interest. Preparation for specialized professional work - such as testing, counseling, university teaching, consulting, and many research activities - usually requires a master's or doctoral degree. Psychology majors have pursued graduate school in many fields, including psychology sub-disciplines such as experimental, developmental, neuroscience, industrial/
organizational, social, sport, exercise, and performance psychology, clinical, counseling, and school psychology, as well as the related fields of social work, education, medicine, law, and business.

There are many different complementary minors. They vary based on individual interests and future career or educational goals, so students are encouraged to discuss options with an advisor.

## Psychology Learning Outcomes

## Goal 1: Knowledge Base in Psychology

1.1 Describe key concepts, principles, and overarching themes in psychology
1.2 Develop a working knowledge of psychology's content domains
1.3 Describe applications of psychology

## Goal 2: Scientific Inquiry and Critical Thinking

2.1 Use scientific reasoning to interpret psychological phenomena
2.2 Demonstrate psychology information literacy
2.3 Engage in innovative and integrative thinking and problem solving
2.4 Interpret, design, and conduct basic psychological research
2.5 Incorporate sociocultural factors in scientific inquiry

## Goal 3: Ethical and Social Responsibility in a Diverse World

3.1 Apply ethical standards to evaluate psychological science and practice
3.2 Build and enhance interpersonal relationships
3.3 Adopt values that build community at local, national, and global levels

## Goal 4: Communication

4.1 Demonstrate effective writing for different purposes
4.2 Exhibit effective presentation skills for different purposes
4.3 Interact effectively with others

Goal 5: Professional Development
5.1 Apply psychological content and skills to career goals
5.2 Exhibit self-efficacy and self-regulation
5.3 Refine project-management skills
5.4 Enhance teamwork capacity
5.5 Develop meaningful professional direction for life after graduation

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 12-14 |
| PSYCH 102 | Introduction to Psychology |  |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Biology (choose one): |  |  |
| BIOLOGY 201 <br> \& BIOLOGY 202 | Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes |  |
| HUM BIOL 102 | Introduction to Human Biology |  |
| HUM BIOL 240 | Anatomy and Physiology |  |
| Statistics (choose one): |  |  |
| PSYCH 205 | Social Science Statistics |  |
| BUSAN 220 | Introduction to Business Statistics (for Business major and minors only) |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  | 28 |
| PSYCH 300 | Research Methods in Psychology |  |
| Core Courses |  |  |
| Physiological/Cognitive (choose one): |  |  |
| PSYCH 308 | Physiological Psychology |  |
| PSYCH 417 | Psychology of Cognitive Processes |  |
| Social/Personality (choose one): |  |  |
| PSYCH 330 | Social Psychology |  |


Total Credits ..... 21-23

1 Courses not used in one of the four core requirement areas may be completed as the one additional elective course.

## Curriculum Guide

The following is only an example of a four-year Psychology degree program and is subject to change without notice. Students should consult an advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

## An example: Four year plan for Psychology Major

120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.


| Elective |  | 3 |
| :---: | :---: | :---: |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PSYCH 3XX/4XX Psychology Elective |  | 3 |
| PSYCH 494 Capstone in Psychology |  | 3 |
| PSYCH 495 <br> or PSYCH 496 <br> or PSYCH 497 | Teaching Assistantship or Research Assistantship or Internship | 3 |
| Elective |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 122 |

## Faculty

Jason Cowell; Professor; Ph.D., University of Minnesota
Ryan C Martin; Professor; Ph.D., University of Southern Mississippi, chair
Sawa Senzaki; Professor; Ph.D., University of Alberta
Christine A Smith; Professor; Ph.D., University of Pittsburgh
Kristin M Vespia; Professor; Ph.D., University of lowa
Dean D VonDras; Professor; Ph.D., Washington University in St. Louis
Georjeanna J Wilson-Doenges; Professor; Ph.D., University of California - Irvine
Todd Hillhouse; Associate Professor; Ph.D., Virginia Commonwealth University
Jenell L Holstead; Associate Professor; Ph.D., University of Indiana
Joanna Morrisey; Associate Professor; Ph.D., University of lowa
Thomas Gretton; Assistant Professor; Ph.D., Florida State University*
Elif Ikizer; Assistant Professor; Ph.D., University of Connecticut
Alison Martingano; Assistant Professor; Ph.D., The New School for Social Research
Abigail Nehrkorn-Bailey; Assistant Professor; Ph.D., West Virginia University
Chelsea B Wooding; Assistant Professor; Ph.D., West Virginia University*
Stephanie Cutlan; Assistant Teaching Professor; Ph.D., University of Memphis
Macrae Husting; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Public Administration

(Bachelor of Science)
As a broad-based, interdisciplinary, social science major, Public Administration prepares students for challenging careers in public and nonprofit organizations and, if desired, further study in graduate programs. Students develop proficiency in organizational management and leadership, nonprofit management, fundraising, public policy analysis, human resources, program evaluation, policy development and implementation and budgeting.

With a broad skill-set, graduates work in public, nonprofit, and commercial organizations in positions as program directors, policy analysts, nonprofit executives, budget specialists, governmental affairs directors in commercial businesses, and municipal leaders. Many pursue graduate studies in public administration, law, political science, nonprofit management, public policy, and public affairs.

All Public Administration majors engage in high impact, problem-focused, applied learning. This major excels in internships: students can choose from a wide array of strong internship placements in city, county and state executive offices, non-profit organizations, and emergency management settings. Students are encouraged to gain experiences through independent study, community research projects, and an other individualized work with faculty.

Students majoring in Public Administration must choose an emphasis: Public and Nonprofit Management or Emergency Management. Students who want to focus specifically on the nonprofit sector should consider earning the free-standing Nonprofit Management Certificate. Students pursuing
an Emergency Management emphasis can obtain a free-standing Emergency Management Certificate, which is offered in cooperation with campus Continuing Education and Community Engagement programs.

Please seek assistance from a faculty adviser in creating your own academic plan.

## Learning Outcomes

Upon completion of a public administration major at UW-Green Bay, students will have :

- demonstrated an understanding of the process of public policy analysis and policy-making.
- developed the ability to collect, manage, evaluate, and apply data to make decisions and solve public and nonprofit problems.
- demonstrated knowledge of ethics and the importance of their application to everyday decision-making in public and nonprofit organizations and public affairs.
- demonstrated social responsibility in public service and other intentional engagement in the community.
- demonstrated core skills of public and nonprofit management including leadership, collaboration, financial management, program evaluation, and human resource management.
- applied approaches to collaborating productively with diverse individuals and groups to promote effective communities, organizations, programs, and policies.


## Considering a Double Major or a Major and a Minor?

Many Public Administration students choose to complete double majors in Political Science, Environmental Policy and Planning, Organizational Leadership or Urban Studies. A second major complements the Public Administration curriculum and makes students stronger candidates when seeking careers or entry into graduate programs.

A minor in Public Administration fits well with majors in Political Science, Economics, Communication, Environmental Policy and Planning, Urban Studies, Democracy and Justice Studies, Psychology, Social Work, and many more. Please see a faculty adviser early in your academic career for advice on these options.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and the National Student Exchange program. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at h (http://www.uwgb.edu/international/)ttp://www.uwgb.edu/international/ (http:// www.uwgb.edu/international/). (http://www.uwgb.edu/international/)

## Major Area of Emphasis (p. 336)

Students must complete requirements in one of the following areas of emphasis: (p. 336)

- Emergency Management (p. 336)
- Emergency Management (Accelerated) - Integrated with graduate Master of Public Administration Program (p. 336)
- Public \& Nonprofit Management (p. 336)
- Public \& Nonprofit Management (Accelerated) - Integrated with graduate Master of Public Administration Program (p. 336)


## Minor

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| Required (choose 3 courses): |  |
| POL SCI 101 | American Government and Politics |
| PUB ADM 202 | Introduction to Public Policy |
| PUB ADM 215 | Introduction to Public Administration |
| PUB ADM 225 | Introduction to the Nonprofit Sector |
| Upper-Level Courses |  |
| Required (choose 3 courses): |  |
| PUB ADM 315 | Public and Non-Profit Management |
| PUB ADM 408 | Public Policy Analysis |
| PUB ADM 415 | Public and Nonprofit Budgeting |
| PUB ADM 428 |  |
| Electives (choose $\mathbf{2}$ courses): | Cost Benefit Analysis |
| ECON 453 | Urban Politics and Policy |
| POL SCI 305 |  |


| POL SCI 406 | State and Local Government |
| :--- | :--- |
| PUB ADM 301 | Environmental Politics and Policy |
| PUB ADM 306 | Regulatory Policy and Administration |
| PUB ADM 314 | Administrative Law |
| PUB ADM 315 | Public and Non-Profit Management |
| PUB ADM 345 | Human Resource and Risk Management |
| PUB ADM 408 | Public Policy Analysis |
| PUB ADM 415 | Public and Nonprofit Budgeting |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |
| PUB ADM 497 | Internship |

Total Credits
1 PUB ADM 497 can only be completed for 3 credits to satisfy the upper level elective requirement. A 2.75 GPA is required for internship participation.

## Curriculum Guide

The following is only an example of a four-year Public Administration degree program and is subject to change without notice. Students should consult a Public Administration program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Public Administration Major
120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| POL SCI 101 | American Government and Politics | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PUB ADM 202 | Introduction to Public Policy | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| PUB ADM 215 | Introduction to Public Administration | 3 |
| BUSAN 220 or PSYCH 205 or MATH 260 | Introduction to Business Statistics or Social Science Statistics or Introductory Statistics | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| ECON 203 | Micro Economic Analysis | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |


| Junior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| PUB ADM 315 | Public and Non-Profit Management | 3 |
| PUB ADM 344 | Leadership in Organizations | 3 |
| Public Administration Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PUB ADM 415 | Public and Nonprofit Budgeting | 3 |
| PUB ADM 428 | Public and Nonprofit Program Evaluation | 3 |
| Public Administration Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| PUB ADM 497 | Internship | 3 |
| PUB ADM 408 | Public Policy Analysis | 3 |
| Public Administration Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| PUB ADM 497 | Internship | 3 |
| Public Administration Upper Level Elective |  | 3 |
| Public Administration Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 120 |

## Faculty

Aaron C Weinschenk; Professor; Ph.D., University of Wisconsin - Milwaukee*
David J Helpap; Associate Professor; Ph.D., University of Wisconsin - Milwaukee*
Kerry Kuenzi; Associate Professor; Ph.D., University of Colorado
Laurel E Phoenix; Associate Professor; Ph.D., State University of New York - College of Environmental Science and Forestry*
Lora H Warner; Associate Professor; Ph.D., Virginia Commonwealth University
Elizabeth E Wheat; Associate Professor; Ph.D., Western Michigan University*
Bit An; Assistant Professor; Ph.D., University of Nebraska - Omaha

## Public Administration Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Emergency Management
- Emergency Management (Accelerated) - Integrated with graduate Master of Public Administration Program
- Public \& Nonprofit Management
- Public \& Nonprofit Management (Accelerated) - Integrated with graduate Master of Public Administration Program


## Emergency Management

## Code Title

| PUB ADM 202 | Introduction to Public Policy |  |
| :---: | :---: | :---: |
| PUB ADM 215 | Introduction to Public Administration |  |
| PUB ADM 225 | Introduction to the Nonprofit Sector |  |
| POL SCI 101 | American Government and Politics |  |
| Statistics (choose one): |  |  |
| PSYCH 205 | Social Science Statistics |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| Upper-Level Courses |  |  |
| Required: |  | 18 |
| PUB ADM 335 | Principles and Practices of Emergency Management |  |
| PUB ADM 336 | Strategic Emergency Preparedness, Planning and Implementation |  |
| PUB ADM 337 | Disaster Response Operations and Management |  |
| PUB ADM 338 | Disaster Recovery |  |
| PUB ADM 339 | Political and Policy Dimensions of Emergency Management |  |
| PUB ADM 430 | Seminar in Ethics and Public Action |  |
| Electives: |  | 18 |
| Choose 18 credits from the following courses: |  |  |
| PUB ADM 306 | Regulatory Policy and Administration |  |
| PUB ADM 315 | Public and Non-Profit Management |  |
| PUB ADM 322 | Environmental Planning |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| PUB ADM 407 | Service in the Public Sector |  |
| PUB ADM 408 | Public Policy Analysis |  |
| PUB ADM 415 | Public and Nonprofit Budgeting |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |
| ECON 453 | Cost Benefit Analysis |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| POL SCI 406 | State and Local Government |  |
| PUB ADM 478 | Honors in the Major ${ }^{1}$ |  |
| PUB ADM 495 | Teaching Assistantship ${ }^{1}$ |  |
| PUB ADM 496 | Project/Research Assistantship ${ }^{1}$ |  |
| PUB ADM 497 | Internship |  |
| PUB ADM 498 | Independent Study ${ }^{1}$ |  |
| PUB ADM 499 | Travel Course ${ }^{1}$ |  |

1 Each of these courses can count once for 3 credits each as major electives.

## Emergency Management (Accelerated) - Integrated with graduate Master of Public Administration Program

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | 12-13 |
| Complete three of the following: |  |  |
| PUB ADM 202 | Introduction to Public Policy |  |
| PUB ADM 215 | Introduction to Public Administration |  |
| PUB ADM 225 | Introduction to the Nonprofit Sector |  |
| POL SCI 101 | American Government and Politics |  |
| Complete one of the following: |  |  |
| PSYCH 205 | Social Science Statistics |  |


| BUSAN 220 | Introduction to Business Statistics |
| :--- | :--- |
| MATH 260 | Introductory Statistics |
| Upper-Level Courses |  |
| Required: | Principles and Practices of Emergency Management ${ }^{\text {\# }}$ |
| PUB ADM 335/535 | Strategic Emergency Preparedness, Planning and Implementation * ${ }^{\text {\# }}$ |
| PUB ADM 336/536 | Disaster Response Operations and Management ${ }^{\text {\# }}$ |
| PUB ADM 337/537 | Disaster Recovery \# |
| PUB ADM 338/538 | Political and Policy Dimensions of Emergency Management ${ }^{\text {\# }}$ |
| PUB ADM 339/539 | Seminar in Ethics and Public Action |

Electives: 18

Choose 18 credits from the following courses:

| PUB ADM 306/506 | Regulatory Policy and Administration \# |
| :---: | :---: |
| PUB ADM 315 | Public and Non-Profit Management |
| PUB ADM 322 | Environmental Planning |
| PUB ADM 344 | Leadership in Organizations |
| PUB ADM 345/545 | Human Resource and Risk Management \# |
| PUB ADM 407/607 | Service in the Public Sector \# |
| PUB ADM 408 | Public Policy Analysis |
| PUB ADM 415 | Public and Nonprofit Budgeting |
| PUB ADM 428/628 | Public and Nonprofit Program Evaluation \# |
| ECON 453 | Cost Benefit Analysis |
| GEOG 350 | GIS in Public and Environmental Policy |
| POL SCI 406 | State and Local Government |
| PUB ADM 478 | Honors in the Major ${ }^{1}$ |
| PUB ADM 495 | Teaching Assistantship ${ }^{1}$ |
| PUB ADM 496 | Project/Research Assistantship ${ }^{1}$ |
| PUB ADM 497 | Internship |
| PUB ADM 498 | Independent Study ${ }^{1}$ |
| PUB ADM 499 | Travel Course ${ }^{1}$ |

## Total Credits

1 Each of these courses can count once for 3 credits each as major electives.
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Master of Public Administration office or refer to the graduate catalog (https://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Public \& Nonprofit Management

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| Complete three of the following: |  |
| PUB ADM 202 | Introduction to Public Policy |
| PUB ADM 215 | Introduction to Public Administration |
| PUB ADM 225 | Introduction to the Nonprofit Sector |
| POL SCI 101 | American Government and Politics |
| Statistics (choose one): |  |
| PSYCH 205 | Social Science Statistics |
| BUSAN 220 | Introduction to Business Statistics |
| MATH 260 | Introductory Statistics |

## Upper Level Courses

Required:

| PUB ADM 345 | Human Resource and Risk Management |  |
| :---: | :---: | :---: |
| PUB ADM 408 | Public Policy Analysis |  |
| PUB ADM 415 | Public and Nonprofit Budgeting |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |
| PU EN AF 430 | Seminar in Ethics and Public Action |  |
| Electives |  | 18 |
| Choose 18 credits from the following courses: |  |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| PUB ADM 306 | Regulatory Policy and Administration |  |
| PUB ADM 314 | Administrative Law |  |
| PUB ADM 322 | Environmental Planning |  |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 407 | Service in the Public Sector |  |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |  |
| ECON 453 | Cost Benefit Analysis |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| POL SCI 305 | Urban Politics and Policy |  |
| POL SCI 316 | Congress: Politics and Policy |  |
| POL SCI 361 | Immigration and Immigration Policy |  |
| POL SCI 370 | Foreign and Defense Policies |  |
| POL SCI 406 | State and Local Government |  |
| PUB ADM 478 | Honors in the Major ${ }^{1}$ |  |
| PUB ADM 495 | Teaching Assistantship ${ }^{1}$ |  |
| PUB ADM 496 | Project/Research Assistantship ${ }^{1}$ |  |
| PUB ADM 497 | Internship |  |
| PUB ADM 498 | Independent Study ${ }^{1}$ |  |
| PUB ADM 499 | Travel Course ${ }^{1}$ |  |

## Total Credits

1 Each of these courses can count once for 3 credits each as major electives.

## Public \& Nonprofit Management (Accelerated) - Integrated with graduate Master of Public Administration Program

| Code <br> Supporting Courses <br> Complete three of the following: | Title |
| :--- | :--- |
| PUB ADM 202 | Introduction to Public Policy |
| PUB ADM 215 | Introduction to Public Administration |
| PUB ADM 225 | Introduction to the Nonprofit Sector |
| POL SCI 101 | American Government and Politics |
| Statistics (choose one): |  |
| PSYCH 205 | Social Science Statistics |
| BUSAN 220 | Introduction to Business Statistics |
| MATH 260 | Introductory Statistics |
| Upper Level Courses |  |
| Required: | Public and Non-Profit Management |
| PUB ADM 315 | Human Resource and Risk Management $\#$ |
| PUB ADM 345/545 | Public Policy Analysis |
| PUB ADM 408 | Public and Nonprofit Budgeting |
| PUB ADM 415 | $\mathbf{1 8}$ |


| PUB ADM 428/628 | Public and Nonprofit Program Evaluation \# |  |
| :---: | :---: | :---: |
| PU EN AF 430 | Seminar in Ethics and Public Action |  |
| Electives |  | 18 |
| Choose 18 credits from the following courses: |  |  |
| PUB ADM 301 | Environmental Politics and Policy |  |
| PUB ADM 306/506 | Regulatory Policy and Administration \# |  |
| PUB ADM 314/514 | Administrative Law \# |  |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 407/607 | Service in the Public Sector \# |  |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |  |
| ECON 453 | Cost Benefit Analysis |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| POL SCI 305 | Urban Politics and Policy |  |
| POL SCI 316 | Congress: Politics and Policy |  |
| POL SCI 361 | Immigration and Immigration Policy |  |
| POL SCI 370 | Foreign and Defense Policies |  |
| POL SCI 406/606 | State and Local Government \# |  |
| PUB ADM 322 | Environmental Planning |  |
| PUB ADM 478 | Honors in the Major ${ }^{1}$ |  |
| PUB ADM 495 | Teaching Assistantship ${ }^{1}$ |  |
| PUB ADM 496 | Project/Research Assistantship ${ }^{1}$ |  |
| PUB ADM 497 | Internship |  |
| PUB ADM 498 | Independent Study ${ }^{1}$ |  |
| PUB ADM 499 | Travel Course ${ }^{1}$ |  |
| Total Credits |  | -49 |

1 Each of these courses can count once for 3 credits each as major electives.
\# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Master of Public Administration office or refer to the graduate catalog (https://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

## Social Justice

The Social Justice minor is an interdisciplinary minor that draws on history, political science, sociology and other perspectives to help students understand what makes societies equitable and fair, and how activists and other agents of change, past and present, have fought for those ideals.

Lower division courses will introduce students to the concept of social justice and open opportunities for students to explore ways to get involved in their community. Upper division courses will allow students to explore a more focused lens for social justice through perspectives such as class, gender, and sexuality.

This minor prepares students for both activist work and enhances the worldview of students who pursue many other career paths with a social justice perspective and experience with practical applications. The social justice minor pairs very well with other humanities and social science majors through which students are exploring questions of equity, justice, and democracy.

## Minor

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| DJS 101 | Introduction to Democracy and Justice Studies |
| Choose one (3 credits): |  |
| COMM SCI 200 | Civic Scholars Practicum |
| DJS 200 | Mentoring for Equity and Inclusion |
| DJS 204 | Freedom and Social Control |
| DJS 221 | Law and Equality in Historical Perspective |


| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |
| :--- | :--- |
| WOST 201 | Introduction to LGBTQ Studies |
| Upper level courses | Senior Seminar in Democracy and Justice Studies |
| DJS 470 | Internship |
| Choose three courses (9 credits): |  |
| COMM SCI 497 | Constitutional Law |
| DJS 320 | Prison and Society |
| DJS 330 | Historical Perspectives on American Democracy |
| DJS 361 | Topics in Democracy and Justice |
| DJS 363 | U.S. Labor and the Working Class: Past and Present |
| HISTORY 365 | History of Sexuality in the U.S. |
| HISTORY 370 | U.S. Women's History |
| HISTORY 380 | American Political Thought |
| POL SCI 349 | Political Theory |
| POL SCI 340 | Immigration and Immigration Policy |
| POL SCI 361 | Topics in Women's, Gender, and Sexuality Studies |
| WOST 350 | Feminist Theory |

Total Credits

## Faculty

Ekaterina M Levintova; Professor; Ph.D., Western Michigan University
Jon K Shelton; Professor; Ph.D., University of Maryland, chair
Andrew W Austin; Associate Professor; Ph.D., University of Tennessee
Eric J Morgan; Associate Professor; Ph.D., University of Colorado at Boulder
Kimberley A Reilly; Associate Professor; Ph.D., University of Chicago
Nolan Bennett; Assistant Professor; Ph.D., Cornell University

## Social Work

(Bachelor of Social Work)
Social work is an exciting and dynamic profession. The major in Social Work, leading to the Bachelor of Social Work (BSW) degree, prepares a graduate for a career as a social worker interacting with a broad range of individuals, families, organizations, and communities. Graduates of the UW-Green Bay Social Work Professional Program secure positions in programs serving populations that include older adults, children and their families, persons challenged by developmental and other disabilities, juvenile and adult offenders, persons experiencing mental or physical health issues, and other at-risk and vulnerable groups identified in this ever-evolving field. Social workers provide direct service and work for social justice through community change activities.

The Social Work Professional Program has full accreditation from the Council on Social Work Education (CSWE). The BSW degree from UW-Green Bay allows a graduate to obtain state certification and provides a broad range of employment opportunities.

Majors may elect to enroll in the child welfare emphasis, preparing for a career in child welfare practice. Students who have an interest in a career in public or tribal child welfare can apply for a stipend through The Child Welfare Training Program.

Majors may elect to enroll in the behavioral health emphasis, preparing for a career in mental health and substance abuse fields.
A Bachelor of Social Work degree provides advanced status for students seeking a Master's Degree in Social Work.

## Program Entry Requirements

Students who wish to major in Social Work must make formal application for admission to the program. This applies to those transferring from other institutions as well as students continuing at UW-Green Bay. Students may apply to the Social Work program at the March application date for fall admission. Application materials are available from the UW-Green Bay Social Work website (http://www.uwgb.edu/socwork/).

To apply to the BSW degree program, students must first be admitted to the University of Wisconsin-Green Bay and demonstrate they will have completed 48 credits by the time they begin the major. Additionally, they must have a cumulative grade point average of at least 2.5 and have completed the support course, PSYCH 203: Introduction to Life Span Development. Students are strongly encouraged to complete both WF 105 and statistics prior to entering the major. Applicants should demonstrate an interest in the profession, as indicated by the letter of reference and the essay accompanying their application.

Prospective Social Work majors should seek early advising from the Social Work Professional Advisor, Ryan Roberts. Contact him at 920-465-2679, or via email at robertsr@uwgb.edu (robertsr@uwgb.edu) to schedule an appointment.

## Major Area of Emphasis (p. 342)

Students must complete requirements in one of the following areas of emphasis: (p. 342)

- Behavioral Health (p. 342)
- Child Welfare (p. 342)
- General (p. 342)


## Faculty

Tohoro F Akakpo; Associate Professor; Ph.D., Michigan State University*
Joan M Groessl; Associate Professor; Ph.D., Marian University, chair*
Stephanie Rhee; Associate Professor; Ph.D., University of Kentucky*
Jolanda M Sallmann; Associate Professor; Ph.D., University of Wisconsin - Madison*
Angela Baerwolf; Assistant Professor; Ph.D., University of St. Thomas*
Cary Waubanascum; Assistant Professor; Ph.D., University of Minnesota*
Jennifer Schanen-Materi; Associate Teaching Professor; M.S.W., University of Wisconsin - Green Bay*
Sara Greenwood; Assistant Teaching Professor; M.S.W., University of Michigan*
Heather Lawrence; Assistant Teaching Professor; M.S.W., University of Wisconsin - Green Bay*
Brittany Maas; Assistant Teaching Professor; M.S., University of Wisconsin - Green Bay*

## Social Work Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Behavioral Health
- Child Welfare
- General


## Behavioral Health

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | $\mathbf{3}$ |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Statistics (choose one course): |  | $\mathbf{3 - 4}$ |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Micro-Level Systems: | Psychopathology | $\mathbf{3}$ |
| PSYCH 435 |  |  |
| Macro-Level Systems (choose one course): | $\mathbf{2 - 3}$ |  |
| PSYCH 310 | Drugs and Behavior |  |
| PSYCH 330 | Social Psychology |  |


| SOC WORK 213 | Human Trafficking |  |
| :---: | :---: | :---: |
| SOC WORK 307 | Ethics in Practice |  |
| SOC WORK 455 | First Nations Futures and Decolonizing Social Work |  |
| Diversity, Equity, Inclusion (choose one course): |  | 3 |
| PSYCH 350 | Cultural Psychology |  |
| PSYCH 440 | Multicultural Counseling and Mental Health |  |
| Gender Identity \& Sexual Orientation (choose one course): |  | 3 |
| DJS 348 | Gender and the Law |  |
| FNS 360 | Women and Gender in First Nations Communities |  |
| HUM BIOL 206 | Fertility, Reproduction, and Family Planning |  |
| HUM BIOL 324 | The Biology of Women |  |
| HISTORY 370 | History of Sexuality in the U.S. |  |
| PSYCH 401 | Psychology of Women and Gender |  |
| SOCIOL 238 | Sociological Perspectives on Gender |  |
| SOCIOL 375 | Sociology of Sexual and Intimate Relations |  |
| SOC WORK 213 | Human Trafficking |  |
| WOST 201 | Introduction to LGBTQ Studies |  |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |  |
| WOST 437 | Feminist Theory |  |
| Upper-Level Courses |  | 41 |
| SOC WORK 301 | Research Methods for Generalist Social Work Practice |  |
| SOC WORK 305 | The Social Work Profession |  |
| SOC WORK 311 | Foundations of Social Welfare Policy |  |
| SOC WORK 313 | Skills I: Professionalism \& Teamwork |  |
| SOC WORK 323 | Skills II: Beginning Interviewing |  |
| SOC WORK 371 | Human Behavior and the Social Environment I |  |
| SOC WORK 372 | Human Behavior and the Social Environment II |  |
| SOC WORK 400 | Field Seminar I |  |
| SOC WORK 401 | Field Seminar II |  |
| SOC WORK 402 | Field Practicum I ${ }^{1}$ |  |
| SOC WORK 403 | Field Practicum II ${ }^{1}$ |  |
| SOC WORK 411 | Micro Methods I |  |
| SOC WORK 413 | Skills III: Advanced Interviewing Skills |  |
| SOC WORK 421 | Micro Methods II |  |
| SOC WORK 423 | Skills IV: Intervention Strategies |  |
| SOC WORK 441 | Macro Methods I |  |
| SOC WORK 442 | Macro Methods II |  |
| SOC WORK 461 | Applied Research I |  |
| SOC WORK 462 | Applied Research II |  |
| Required Courses for the Emphasis |  | 5 |
| SOC WORK 304 | Foundations of Crisis Intervention |  |
| SOC WORK 342 | Psychopharmacology |  |

## Total Credits

## Child Welfare

As a program accredited by the Council on Social Work Education, classroom and field activities assist students in the BSW Program to attain practice competency in nine different areas with demonstration of skill and learning across the dimensions of knowledge, values, skills, and cognitive-affective integration. The competencies listed below are the learning objectives for the program.

Competency 1: Demonstrate Ethical and Professional Behavior
Competency 2: Advance Human Rights and Social, Racial, Economic, and Environmental Justice

Competency 3: Engage Anti-Racism, Diversity, Equity, and Inclusion in Practice
Competency 4: Engage In Practice-informed Research and Research-informed Practice
Competency 5: Engage in Policy Practice
Competency 6: Engage with Individuals, Families, Groups, Organizations, and Communities
Competency 7: Assess Individuals, Families, Groups, Organizations, and Communities
Competency 8: Intervene with Individuals, Families, Groups, Organizations, and Communities
Competency 9: Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 3 |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Statistics (choose one course): |  | 3-4 |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Micro-Level Systems: |  | 3 |
| SOC WORK 375 | Family Principles and Patterns |  |
| Macro-Level Systems: |  | 2 |
| SOC WORK 455 | First Nations Futures and Decolonizing Social Work |  |
| Diversity, Equity, Inclusion (choose | one course): | 3 |
| PSYCH 350 | Cultural Psychology |  |
| PSYCH 440 | Multicultural Counseling and Mental Health |  |
| Gender Identity \& Sexual Orientatio | (choose one course): | 3 |
| DJS 348 | Gender and the Law |  |
| FNS 360 | Women and Gender in First Nations Communities |  |
| HUM BIOL 206 | Fertility, Reproduction, and Family Planning |  |
| HUM BIOL 324 | The Biology of Women |  |
| HISTORY 370 | History of Sexuality in the U.S. |  |
| PSYCH 401 | Psychology of Women and Gender |  |
| SOCIOL 238 | Sociological Perspectives on Gender |  |
| SOCIOL 375 | Sociology of Sexual and Intimate Relations |  |
| SOC WORK 213 | Human Trafficking |  |
| WOST 201 | Introduction to LGBTQ Studies |  |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |  |
| WOST 437 | Feminist Theory |  |
| Upper-Level Courses |  | 41 |
| SOC WORK 301 | Research Methods for Generalist Social Work Practice |  |
| SOC WORK 305 | The Social Work Profession |  |
| SOC WORK 311 | Foundations of Social Welfare Policy |  |
| SOC WORK 313 | Skills I: Professionalism \& Teamwork |  |
| SOC WORK 323 | Skills II: Beginning Interviewing |  |
| SOC WORK 371 | Human Behavior and the Social Environment I |  |
| SOC WORK 372 | Human Behavior and the Social Environment II |  |
| SOC WORK 400 | Field Seminar I |  |
| SOC WORK 401 | Field Seminar II |  |
| SOC WORK 402 | Field Practicum I ${ }^{1}$ |  |
| SOC WORK 403 | Field Practicum II ${ }^{1}$ |  |
| SOC WORK 411 | Micro Methods I |  |
| SOC WORK 413 | Skills III: Advanced Interviewing Skills |  |
| SOC WORK 421 | Micro Methods II |  |


| SOC WORK 423 | Skills IV: Intervention Strategies |
| :--- | :--- |
| SOC WORK 441 | Macro Methods I |
| SOC WORK 442 | Macro Methods II |
| SOC WORK 461 | Applied Research I |
| SOC WORK 462 | Applied Research II |
| Required Courses for the Emphasis |  |
| SOC WORK 351 | Overview of the Child Welfare System |
| SOC WORK 451 | Child Welfare Practice |

## Total Credits

1 To qualify for the Child Welfare Emphasis, these courses must involve practicum placement in an agency that serves children and families.

## General

As a program accredited by the Council on Social Work Education, classroom and field activities assist students in the BSW Program to attain practice competency in nine different areas with demonstration of skill and learning across the dimensions of knowledge, values, skills, and cognitive-affective integration. The competencies listed below are the learning objectives for the program.

Competency 1: Demonstrate Ethical and Professional Behavior
Competency 2: Advance Human Rights and Social, Racial, Economic, and Environmental Justice
Competency 3: Engage Anti-Racism, Diversity, Equity, and Inclusion in Practice
Competency 4: Engage In Practice-informed Research and Research-informed Practice
Competency 5: Engage in Policy Practice
Competency 6: Engage with Individuals, Families, Groups, Organizations, and Communities
Competency 7: Assess Individuals, Families, Groups, Organizations, and Communities
Competency 8: Intervene with Individuals, Families, Groups, Organizations, and Communities
Competency 9: Evaluate Practice with Individuals, Families, Groups, Organizations, and Communities

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 3 |
| PSYCH 203 | Introduction to Lifespan Development |  |
| Statistics (choose one course): |  | 3-4 |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Micro-Level Systems (choose one course) |  | 2-3 |
| FNS 224 | First Nations and The Sacred |  |
| FNS 225 | Introduction to First Nations Studies |  |
| PSYCH 331 | Infancy and Early Childhood Development |  |
| PSYCH 332 | Middle Childhood and Adolescent Development |  |
| PSYCH 343 | Adult Development and Aging |  |
| PSYCH 350 | Cultural Psychology |  |
| PSYCH 417 | Psychology of Cognitive Processes |  |
| PSYCH 435 | Psychopathology |  |
| SOC WORK 250 | You and Your Future: Living and Working in an Aging Society |  |
| SOC WORK 342 | Psychopharmacology |  |
| SOC WORK 375 | Family Principles and Patterns |  |
| Macro-Level Systems (choose one course): |  | 2-3 |
| DJS 204 | Freedom and Social Control |  |
| DJS 325 | Law and Society |  |



## Total Credits

## Sociology \& Anthropology

(Bachelor of Arts)

Sociology is the systematic study of social organization and social life. Sociologists use scientific and humanistic approaches to explain and understand social behavior and social systems. Topics include collective behavior and social movements; deviant behavior, crime and punishment; gender and human sexuality; race and ethnicity, community and urban society; and social class and status.

Anthropology is the comparative study of human diversity through time and across the world. Its scope spans the humanities, the social sciences, and the biological, physical, and evolutionary sciences. As a social science, anthropology aims at uncovering the patterns of past and present societies; from a humanistic perspective, .seeks to understand the ways cultural meaning and political power have shaped human experience.

Students in the Sociology \& Anthropology program learn a variety of research methods and social theories used to study both large-scale and smallscale patterns of social relationships, as well as the processes by which these patterns change. A minor in Sociology \& Anthropology will provide additional breadth of perspective for students with majors in the social sciences, arts and humanist studies, and professional programs. It also provides preparation for students going on to graduate work in programs such as anthropology, social psychology, and many professional programs.

## Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 9-10 |
| ANTHRO 100 | Varieties of World Culture |  |
| SOCIOL 101 | Introduction to Sociology |  |
| Statistics (choose one): |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Upper-Level Courses |  | 9 |
| ANTHRO 307 | Anthropological Theory |  |
| SOCIOL 307 | Social Theory |  |
| Choose one: |  |  |
| COMM SCI 301 | Foundations for Social Research |  |
| SOCIOL 325 | Research Methods in Sociology \& Anthropology |  |
| Electives ${ }^{1}$ |  | 21 |
| ANTHRO 304 | Family, Kin, and Community |  |
| ANTHRO 306 | Environmental Anthropology |  |
| ANTHRO 314 | Cultures of the World |  |
| ANTHRO 320 | Myth, Ritual, Symbol and Religion |  |
| ANTHRO 348 | Economic Anthropology |  |
| ANTHRO 498 | Independent Study |  |
| SOCIOL 302 | Social Stratification |  |
| SOCIOL 303 | Race and Ethnic Relations |  |
| SOCIOL 304 | Deviant Behavior |  |
| SOCIOL 308 | Sociology of the Family |  |
| SOCIOL 310 | Urban Sociology |  |
| SOCIOL 311 | Collective Behavior and Social Movements |  |
| SOCIOL 315 | Street Gangs in America |  |
| SOCIOL 320 | Sociology of Religion |  |
| SOCIOL 321 | Topics in Sociology |  |
| SOCIOL 323 | Asian American Communities in the United States |  |
| SOCIOL 324 | Latino Communities in the United States |  |
| SOCIOL 330 | The Sixties |  |
| SOCIOL 335 | Social Psychology: A Sociological Perspective |  |


| SOCIOL 355 | Environmental Sociology |
| :--- | :--- |
| SOCIOL 357 | Environmental Justice |
| SOCIOL 375 | Sociology of Sexual and Intimate Relations |
| SOCIOL 404 | Criminology |
| SOCIOL 498 | Independent Study |
| Minimum 6 credits of 21 must be ANTHRO or SOCIOL |  |
| Total Credits |  |
| 1 | 395 Teaching Assistantship, and 499 Travel Courses are encouraged, but does not count toward the Major |

## Minor

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| ANTHRO 100 | Varieties of World Culture |
| SOCIOL 101 | Introduction to Sociology |
| Statistics (choose one): |  |
| BUSAN 220 | Introduction to Business Statistics |
| MATH 260 | Introductory Statistics |
| PSYCH 205 | Social Science Statistics |

Upper-Level Courses 12

Choose one:

| COMM SCI 301 | Foundations for Social Research |
| :--- | :--- |
| SOCIOL 325 | Research Methods in Sociology \& Anthropology |
| Choose one: |  |

ANTHRO 307
SOCIOL 307
Elective courses (choose two):
ANTHRO 304
ANTHRO 306

ANTHRO 314
ANTHRO 320
ANTHRO 340
ANTHRO 348
ANTHRO 498
DJS 362
SOCIOL 303
SOCIOL 302
SOCIOL 304
SOCIOL 308
SOCIOL 310
SOCIOL 311
SOCIOL 314
SOCIOL 315
SOCIOL 320
SOCIOL 321
SOCIOL 323
SOCIOL 324
SOCIOL 330
SOCIOL 335
SOCIOL 355
SOCIOL 357
SOCIOL 375

Anthropological Theory
Social Theory

Family, Kin, and Community
Environmental Anthropology
Cultures of the World
Myth, Ritual, Symbol and Religion
Medical Anthropology
Economic Anthropology
Independent Study
Power and Change in America
Race and Ethnic Relations
Social Stratification
Deviant Behavior
Sociology of the Family
Urban Sociology
Collective Behavior and Social Movements
Suburbs
Street Gangs in America
Sociology of Religion
Topics in Sociology
Asian American Communities in the United States
Latino Communities in the United States
The Sixties
Social Psychology: A Sociological Perspective
Environmental Sociology
Environmental Justice
Sociology of Sexual and Intimate Relations

| SOCIOL 404 Criminology <br> SOCIOL 498 Independent Study |  |
| :--- | :--- |
| Total Credits |  |
| Faculty |  |
| Ray Hutchison; Professor; Ph.D., University of Chicago, chair |  |
| Dana Atwood; Associate Professor; Ph.D., Western Michigan University |  |
| Andrew W Austin; Associate Professor; Ph.D., University of Tennessee |  |
| Christopher Kleps; Assistant Professor, Ohio State University |  |

## Spanish and Latin American Studies

(Bachelor of Arts)
The Spanish and Latin American Studies program provides students with communication skills in both written and spoken Spanish and gives them an understanding of and appreciation for the peoples, literatures, and cultures of Spain and Latin America. Stronger ties with the Spanish-speaking world and the growing number of Spanish-speakers in the United States have significantly increased the need for teachers and speakers of Spanish.

Although some students choose to study Spanish primarily for personal growth and intellectual enrichment, graduates in Spanish and Latin American Studies have found satisfying careers in teaching, international business, translating and interpreting, personnel work, public relations, business management, social work, government service, and other fields. The Spanish and Latin American Studies major is also excellent preparation for graduate study. Proficiency in a foreign language and understanding of other cultures are essential for peace and prosperity in an interdependent world.

Learning a new language is a life-long endeavor, only part of which can be accomplished in the classroom. All students of Spanish and Latin American Studies are strongly encouraged to pursue the opportunities faculty provide for travel and study in Spain, Mexico, Guatemala, and South America. Additionally, ways exist to interact with the Hispanic community of Green Bay. A language laboratory with interactive audio equipment, computers, and international television reception helps language learning and cultural awareness. Spanish conversation groups meet periodically to offer the opportunity to practice the language. Students are encouraged to become members of the student-led Spanish Club.

Many students majoring in Spanish and Latin American Studies will also choose a complimentary minor. Students may choose Humanities; students interested in the arts or the performing arts may choose Design Arts or Arts Management. Depending on their preferences and goals, students may find other minors appropriate, such as Human Development or Democracy and Justice Studies. Students desiring teacher preparation in Spanish must combine their studies in Spanish with the secondary Education minor.

Students who begin Spanish and Latin American Studies study at UW-Green Bay should enroll in SPANISH 101. Students with previous Spanish should select a course appropriate to their level by counting a year of high school work as equivalent to a semester of college work, or consult the Spanish and Latin American Studies adviser. If more than two semesters have elapsed between your high school Spanish classes and when you will be enrolling in college Spanish courses, you are required to take the UW placement test for appropriate placement.

Students seeking teacher certification must be admitted to the Education Program and should contact the Education Office for information and further requirements.

The following is required of all students seeking teacher certification in Spanish and Latin American Studies:

- An oral proficiency exam must be successfully completed before student can be approved for student teaching.
- Student is required to spend an appropriate period of time in a country where Spanish is spoken or participate in an approved immersion program.

Students may study abroad or at other campuses in the United States through UW-Green Bay's participation in international exchange programs and National Student Exchange. Travel courses are another option for obtaining academic credits and completing requirements. For more information, contact the Office of International Education at (920) 465-2190 or see http://www.uwgb.edu/international/.

## Retroactive Credit

Degree seeking students who have taken a second language in high school or who have acquired knowledge of a second language elsewhere may earn up to 14 additional credits for their previous language study by completing a foreign language course beyond the 101 level. With a grade of "B" or better, credit will be given in that language for all of the courses in that language preceding the one in which the student has enrolled, to a maximum of 14 credits; with a grade of "BC" or "C," half credit will be given for the courses preceding the one in which the student has enrolled, to a maximum of seven credits.

For example, with four years of high school Spanish, students who complete SPANISH 224 or SPANISH 225, with a grade of "B" will receive 14 retroactive credits for SPANISH 101, SPANISH 102, SPANISH 201, and SPANISH 202 in addition to the three credits for SPANISH 225; students who
complete the course with a "C" will receive seven retroactive credits for SPANISH 101 (2 of the total 4 credits), SPANISH 102 (2 of the total 4 credits), SPANISH 201 ( 1.5 of the total 3 credits), and SPANISH 202 ( 1.5 of the total 3 credits).

Requests for retroactive credit in a student's native language are not generally accepted.
To determine eligibility for retroactive credit, students must consult with the appropriate language program chair or course instructor who will advise them regarding which foreign language course they should take. If a student meets the criteria above, the course instructor must complete the Retroactive Credit Form and submit it to the Registrar's Office. The appropriate courses and corresponding credits will then be recorded on the student's transcript.

Retroactive credit will not be awarded based on a student's performance on any sort of test. This includes, but is not limited to, AP, CLEP, or Challenge exams. Retroactive foreign language credits may only be earned by satisfactorily passing a course at UW-Green Bay or through an approved CCHS program as described above.

Retroactive credits earned at any UW System institution or from St. Norbert College courses will be honored and granted to transfer students. Retroactive foreign language credits awarded by other institutions will not be granted to students who transfer to UW-Green Bay. Students may request an exception to this policy by submitting a written appeal to the language coordinator of the department they wish to receive credit from.

If you're repeating a course, contact the Spanish and Latin American Studies program chair for further information on retroactive credits.

## Major Area of Study (p. 352)

This major requires completion of one of the following areas of emphasis: (p. 352)

- Spanish and Latin American Studies (p. 352)
- Spanish and Latin American Studies for Students Seeking Teaching Certification (p. 352)


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| SPANISH 202 | Intermediate Spanish Language II |  |
| Choose one: |  |  |
| SPANISH 224 | Heritage Language and Culture |  |
| SPANISH 225 | Composition and Conversation |  |
| Upper-Level Courses |  | 12 |
| Required: |  |  |
| SPANISH 329 | Representative Spanish and Latin American Authors |  |
| Choose one: |  |  |
| SPANISH 324 | Advanced Heritage Language and Culture |  |
| SPANISH 325 | Advanced Spanish Conversation and Composition |  |
| Choose one: |  |  |
| SPANISH 357 | Cultura Latina |  |
| SPANISH 358 | Latin America Today |  |
| SPANISH 359 | The Cultures of the Americas |  |
| SPANISH 360 | Spain Today |  |
| SPANISH 361 | The Cultures of Spain |  |
| SPANISH 373 | Spanish in the US |  |
| SPANISH 465 | Special Topics |  |
| Choose one: |  |  |
| SPANISH 345 | Advanced Spanish Grammar |  |
| SPANISH 351 | Major Spanish and Latin American Fiction |  |
| SPANISH 355 | Spanish and Latin American Cinema |  |
| SPANISH 357 | Cultura Latina |  |
| SPANISH 358 | Latin America Today |  |
| SPANISH 359 | The Cultures of the Americas |  |
| SPANISH 360 | Spain Today |  |
| SPANISH 361 | The Cultures of Spain |  |
| SPANISH 372 | Spanish Phonetics |  |


| SPANISH 373 | Spanish in the US |
| :--- | :--- |
| SPANISH 465 | Special Topics |
| SPANISH 499 | Travel Course |

Total Credits

## Curriculum Guide

The following is a curriculum guide for a four-year Spanish degree program and is subject to change without notice. Students should consult a Spanish program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

An example: Four year plan for Spanish Major; Minor in Humanistic Studies
120 credits necessary to graduate. Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HISTORY 101 <br> or HISTORY 103 <br> or HUM STUD 201 | Foundations of Western Culture I <br> or World Civilizations I <br> or Introduction to the Humanities | 3 |
| First Year Seminar |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| HISTORY 102 or HISTORY 104 | Foundations of Western Culture II or World Civilizations II | 3 |
| SPANISH 202 | Intermediate Spanish Language II | 3 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |



| Spring |  |
| :---: | :---: |
| SPANISH 324 | Advanced Heritage Language and Culture |
| SPANISH 359 | The Cultures of the Americas |


| SPANISH 359 | The Cultures of the Americas |
| :---: | :---: |
| or SPANISH 361 | or The Cultures of Spain |

Humanistic Studies Perspectives Course ..... 3
General Ed ..... 3
Elective ..... 3
Junior
Fall
Spanish Elective ..... 3
Humanistic Studies Perspectives Course ..... 3
General Ed ..... 3
15
Spring
Humanistic Studies Upper Level Elective ..... 3
Humanistic Studies or FNS Upper Level Elective ..... 3
General Ed ..... 3
Elective ..... 3

| Elective |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Senior |  |  |
| Fall |  |  |
| SPANISH 345 | Advanced Spanish Grammar | 3 |
| SPANISH 358 <br> or SPANISH 360 | Latin America Today or Spain Today | 3 |
| SPANISH 372 | Spanish Phonetics | 3 |
| HUM STUD 480 | Humanities Seminar | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| SPANISH 438 | Major Spanish and Latin American Writer(s) | 3 |
| Spanish Upper Level Elective |  | 3 |
| Spanish Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 15 |
|  | Total Credits | 120 |

## Faculty

Cristina M Ortiz; Professor; Ph.D., University of Cincinnati, chair
Hernan Fernandez-Meardi; Associate Professor; Ph.D., Universite de Montreal (Canada)
Maria Yakushkina; Assistant Professor; Ph.D., Purdue University

## Spanish and Latin American Studies Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Spanish and Latin American Studies
- Spanish and Latin American Studies for Students Seeking Teaching Certification


## Spanish and Latin American Studies

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| SPANISH 202 | Intermediate Spanish Language II |  |
| SPANISH 225 | Composition and Conversation |  |
| or SPANISH 224 | Heritage Language and Culture |  |
| Upper-Level Courses |  | 24 |
| SPANISH 325 | Advanced Spanish Conversation and Composition |  |
| or SPANISH 324 | Advanced Heritage Language and Culture |  |
| SPANISH 329 | Representative Spanish and Latin American Authors |  |
| SPANISH 345 | Advanced Spanish Grammar |  |
| SPANISH 358 | Latin America Today |  |
| or SPANISH 359 | The Cultures of the Americas |  |
| SPANISH 360 | Spain Today |  |
| or SPANISH 361 | The Cultures of Spain |  |
| SPANISH 357 | Cultura Latina |  |
| or SPANISH 373 | Spanish in the US |  |
| or SPANISH 465 | Special Topics |  |
| Elective Courses (ch | its of the following): |  |
| SPANISH 351 | Major Spanish and Latin American Fiction |  |
| SPANISH 355 | Spanish and Latin American Cinema |  |


| SPANISH 357 | Cultura Latina |
| :--- | :--- |
| SPANISH 358 | Latin America Today |
| SPANISH 359 | The Cultures of the Americas |
| SPANISH 360 | Spain Today |
| SPANISH 361 | The Cultures of Spain |
| SPANISH 372 | Spanish Phonetics |
| SPANISH 373 | Spanish in the US |
| SPANISH 383 | Spanish in the Professions |
| SPANISH 438 | Major Spanish and Latin American Writer(s) |
| SPANISH 465 | Special Topics ${ }^{1}$ |
| SPANISH 485 | Study Abroad:Spain and Latin America |
| SPANISH 497 | Internship |
| SPANISH 498 | Independent Study |

Total Credits
1 Some upper-level courses are repeatable for credit when topic varies.

## Spanish and Latin American Studies for Students Seeking Teaching Certification

## This emphasis also requires:

- Admission to the Education Program.
- Completion of the minor in Secondary Education.
- Oral and written proficiency exams successfully completed before student can be approved for student teaching (ACTFL intermediate high level) (https://dpi.wi.gov/tepdl/licensing/testing-requirements/).
- Student is required to spend an appropriate period of time in a country where Spanish is spoken or participate in an approved immersion program.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| SPANISH 202 | Intermediate Spanish Language II |  |
| SPANISH 225 | Composition and Conversation |  |
| or SPANISH 224 | Heritage Language and Culture |  |
| Upper-Level Courses |  | 27 |
| EDUC 311 | Teaching World Languages |  |
| SPANISH 325 | Advanced Spanish Conversation and Composition |  |
| or SPANISH 324 | Advanced Heritage Language and Culture |  |
| SPANISH 329 | Representative Spanish and Latin American Authors |  |
| SPANISH 345 | Advanced Spanish Grammar |  |
| SPANISH 372 | Spanish Phonetics |  |
| SPANISH 358 | Latin America Today |  |
| or SPANISH 359 | The Cultures of the Americas |  |
| SPANISH 360 | Spain Today |  |
| or SPANISH 361 | The Cultures of Spain |  |
| SPANISH 357 | Cultura Latina |  |
| or SPANISH 373 | Spanish in the US |  |
| or SPANISH 465 | Special Topics |  |
| Choose 6 credits o | courses: |  |
| SPANISH 351 | Major Spanish and Latin American Fiction |  |
| SPANISH 355 | Spanish and Latin American Cinema |  |
| SPANISH 357 | Cultura Latina |  |
| SPANISH 373 | Spanish in the US |  |
| SPANISH 383 | Spanish in the Professions |  |
| SPANISH 465 | Special Topics ${ }^{1}$ |  |
| SPANISH 485 | Study Abroad:Spain and Latin America |  |


| SPANISH 498 | Independent Study |
| :--- | :--- |
| SPANISH 499 | Travel Course |

Total Credits
1 Some upper-level courses are repeatable for credit when topic varies.

## Sustainability

Since the early years of the University of Wisconsin-Green Bay, the focus of the university has expanded and changed. However, the value of sustainability and environmental stewardship continues to be reflected in the university today, from its outdoor spaces and buildings to its academic programs, general education policies, environmentally focused student organizations, and its recently revised Select Mission statement.

Sustainability and Sustainable Development has been defined in many ways, but the most frequently quoted definition is from Our Common Future, also known as the Brundtland Report: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." That report outlined 17 Sustainable Development Goals with a target date of achievement by 2030. With less than 10 years remaining for that target, our students will have an active role to play in reaching those goals.

An interdisciplinary minor in sustainability encourages students to become aware of how intersecting economic, social, and environmental problems affect the global, regional, and local communities and the necessary pathways to address those problems.

Students pursing the minor may find the following suggested courses to be helpful.
Suggested Supporting Courses and the General Education Requirement Satisfied:
ANTHRO 100 Varieties of World Culture (3 s.h.): Global Culture/Social Sciences)
BUS ADM 202 Introduction to Business (3 s.h.): (Social Sciences)
ECON 102 Economics of the Modern World (3 s.h.): (Social Sciences)
ECON 203 Micro Economic Analysis (3 s.h.) (Social Sciences/Quantitative Literacy)
ENV SCI 102 Introduction to Environmental Sciences (3 s.h.): (Natural Sciences)
HISTORY 220 American Environmental History (3 s.h.): (Sustainability)
POL SCI 102 Introduction to Politics (3 s.h.): (Social Sciences)
PUB ADM 202 Introduction to Public Policy (3 s.h.):(Social Sciences)
PUB ADM 215 Introduction to Public Administration (3 s.h.): (Social Sciences)

## Minor

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| EPP 390 | Colloquium in Environmental Sustainability \& Business |
| EPP 391 | Colloquium in Environmental Sustainability \& Business II |
| EPP 490 | EMBI Co-Op/Experience |
| Upper-Level Requirements |  |
| Business Element (choose 1 course): |  |
| ECON 453 | Cost Benefit Analysis |
| MGMT 389 | Organizational Behavior |
| MKTG 322 | Principles of Marketing |
| SCM 384 | Supply Chain Management |
| Public Policy Element (choose 1 course): |  |
| ECON 305 | Environmental Economics |
| EPP 323 | Sustainable Land Use |
| EPP 324 | Transitioning to Sustainable Communities |
| EPP 379 | Natural Resources Policy, Law, and Administration |
| POL SCI 378 | Environmental Law |


| PUB ADM 301 | Environmental Politics and Policy |
| :--- | :--- |
| PUB ADM 322 | Environmental Planning |
| Environmental Science Element (choose 1 course): |  |
| BIOLOGY 469 | Conservation Biology |
| ENV SCI 303 | Environmental Sustainability |
| ENV SCI 425 | Global Climate Change |
| ENV SCI 460 | Resource Management Strategy |
| ET 334 | Solid Waste Management |
| Sustainability Electives (choose 2 courses from the following list or from the above elements): |  |
| ANTHRO 306 | Environmental Anthropology |
| ENGR 402 | Smart Cities: Engineering the Future |
| EPP 490 | EMBI Co-Op/Experience |
| ET 420 | Lean Processes |
| HISTORY 326 | Global Environmental History |
| HUM STUD 370 | Sustainability through the Humanities |
| PSYCH 380 | Conservation Psychology |
| Total Credits |  |

## Faculty

John Arendt; Lecturer; M.S., University of Wisconsin - Green Bay
Vallari Chandna; Associate Professor; Ph.D., University of North Texas
Amulya Gurtu; Associate Professor; Ph.D., Ryerson University
David J Helpap; Associate Professor; Ph.D., University of Wisconsin - Milwaukee*
Michael Holly; Assistant Professor; Ph.D., University of Wisconsin - Madison
David J Radosevich; Associate Professor; Ph.D., University at Albany, State University of New York*
John R Stoll; Professor; Ph.D., University of Kentucky*
Patricia A Terry; Professor; Ph.D., University of Colorado*
Christine L Vandenhouten; Professor; Ph.D., Marquette University*
Elizabeth E Wheat; Associate Professor; Ph.D., Western Michigan University*
Michael E Zorn; Professor; Ph.D., University of Wisconsin - Madison*

## Theatre and Dance

(Bachelor of Arts)
Students pursuing the bachelor's degree in Theatre will choose one of four areas of emphasis:

- Design/Technical Theatre
- Musical Theatre
- Performance
- Theatre Studies

Each emphasis provides a rigorous artistic/academic environment for the study and production of all forms of theatre. Techniques learned in the classroom are applied in production work giving students an abundance of practical experience. Each year a combination of classic, modern, experimental, musical theatre and dance pieces are selected to give students a diverse background in dramatic literature and styles.

The interdisciplinary focus of the University is an ideal setting for the highly collaborative study and practice of theatre. Many of our productions involve collaborations with University academic programs and student or community organizations.

Theatre faculty members at UW-Green Bay believe that the best way to learn theatre is to create theatre. Students are encouraged to participate in the five mainstage (faculty or guest artist directed and designed) productions each year. Studio (student directed and designed) productions provide
additional opportunities for involvement. University Theatre production work is open to all students and practicum credit is available for work on mainstage productions. The Theatre program is an active participant in the Kennedy Center's American College Theatre Festiva (http://web.kennedycenter.org/education/kcact//Home/ll, a national organization in support of excellence in university theatre.

Our facilities in Theatre Hall include the 450-seat proscenium University Theatre, Theatre 110 - Experimental Theatre \& design studio, acting/ rehearsal studio, dance studio with a new sprung floor, a CAD \& Sound Design lab with plotter, and well equipped scene and costume shops. Two of our Mainstage productions each year are performed in our 90 -seat Jean Weidner Theatre in The Weidner Center for the Performing Arts. We periodically produce musicals and theatre for young audiences in the 2,000-seat Cofrin Family Hall of the Weidner Center.

Students receive training from working professionals and guest artists in a welcoming environment with small class sizes that assure personal attention. Opportunities afforded by the Weidner Center on campus include master classes, discounted tickets, and internship and work opportunities. Alternate Theatre, the student theatre organization, sponsors free workshops and affordable trips to regional theatres. Scholarships for incoming and returning Theatre and Dance students require application and audition or interview.

UW-Green Bay Theatre graduates pursue jobs in the entertainment industry and related fields. Students benefit greatly from internship opportunities prior to graduation and advanced course work in audition and portfolio preparation prepares them for the competitive challenges ahead.

## UW-Green Bay Theatre \& Dance Mission

The UW-Green Bay Theatre and Dance program is a community of professional artists, educators and students that provides professional training in the related performing arts of Theatre, Dance and Design in the context of a broad, liberal arts education. Our program offers high impact learning practices that cultivate creativity, critical thinking, communication skills, and collaboration within and outside the program and delivers a rigorous academic and problem focused environment that seeks to produce work that challenges the mind, engages the heart and delights the senses.

## Core Values

## Collaboration

Working together, we value the contribution of the individual to the collective vision of the team and strive for a cooperative and collegial realization of our artistic goals.

## Professional Practice

We seek excellence in all our endeavors, training students to take their place as professionals. Faculty strives to remain up to date on current technologies and practices.

## Community

We work to create engaging partnerships with our community, providing support and exchanging ideas as well as information, with our colleagues, our audience and the world at large. Students are taught to see the value of becoming engaged members of their community.

## Diversity

Works written by and about persons of all abilities and communities, including BIPOC, LGBTQ, and other members of historically and currently marginalized communities that are under-represented or misrepresented, are studied and staged. Traditional and non-traditional UWGB students from any major or discipline are encouraged to participate in productions.

## Discovery

As an art form, theatre seeks to explore and comprehend the human condition. We encourage and support creativity, curiosity, intellectual and aesthetic development, invention and innovation in the pursuit of understanding.

## Academic and Creative Freedom

We believe that freedom of inquiry is essential to academic and creative pursuits and our program supports intellectual and creative activities without restriction.

## Student Opportunities

In all areas of emphasis, we strive to provide all students with opportunities to experience live theatre and to put classroom learning into practical application.

## Working Alumni

The application of theory and skills are core values held by the UW-Green Bay Theatre and Dance Program. Graduates of our program apply their training to careers in live performance, entertainment technology, film, television, education, arts management, scholarship, and business. UW Green Bay Theatre and Dance graduates have successfully found work with organizations that include - Steppenwolf Theatre Company, Goodman Theatre, Chicago Shakespeare Theater, Lookingglass Theatre, $5{ }^{\text {th }}$ Avenue Theatre, Seattle Repertory Theatre, Guthrie Theatre, Alley Theatre, Oregon

Shakespeare Festival Theatre, Utah Shakespeare Festival, Cirque du Soleil, Peninsula Players Theatre, Door Shakespeare and Dreamworks. Our graduates are on Broadway, in national and international production and concert tours, and educational institutions around the country, providing a farreaching network of industry professionals. UW Green Bay Theatre and Dance graduates have also had great success in creative entrepreneurship, taking their talents in new directions.

## Major Area of Emphasis (p. 357)

Students must complete requirements in one of the following areas of emphasis:

- Design/Technical Theatre
- Musical Theatre
- Performance
- Theatre Studies


## Minors (p. 361)

- Dance Minor
- Theatre Studies Minor


## Curriculum Guides (p. 362) <br> Faculty

Kaoime E Malloy; Professor; M.F.A., University of lowa
Thomas Campbell; Associate Professor; Ph.D., Southern Illinois University
Rebecca Stone-Thornberry; Associate Professor; Ph.D., University of Colorado
Dinesh Yadav; Associate Professor; Ph.D., Indira Gandhi National Open University
Alan Kopischke; Assistant Professor; M.F.A., American Conservatory Theater
Denise A Carlson-Gardner; Associate Teaching Professor; B.F.A., University of Wisconsin - Stevens Point
Sera Shearer; Assistant Teaching Professor; M.F.A., Utah State University

## Theatre Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Design/Technical Theatre
- Musical Theatre
- Performance
- Theatre Studies


## Design/Technical Theatre

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| THEATRE 100 | Theatre and Dance Gateway |
| THEATRE 131 | Acting I |
| THEATRE 200 | Script Analysis |
| THEATRE 221 | Stagecraft |
| THEATRE 222 | Costume Technology |
| Design/Technical Theatre |  |
| THEATRE 220 | Stage Management |
| THEATRE 223 | Computer Applications for Theatre |
| THEATRE 224 | Introduction to Theatre Design |
| Dance (choose one course): |  |

[^2]| THEATRE 128 | Jazz Dance I |
| :--- | :--- |
| THEATRE 137 | Ballet I |
| THEATRE 145 | Modern Dance I |
| THEATRE 161 | Tap Dance I |

Upper-Level Courses

| Design/Technical Theatre/Directing |  |
| :--- | :--- |
| THEATRE 321 Scene Design <br> THEATRE 322 Costume Design <br> THEATRE 323 Stage Lighting <br> THEATRE 351 Directing I <br> THEATRE 404 Design Seminar <br> History/Literature  <br> THEATRE 309 Theatre History I:Greek to 19th Century <br> THEATRE 310 Theatre History II: Realism to Contemporary <br> Shop Practicum (4 credits required):  <br> THEATRE 338 Production Practicum: Scene Shop (minimum 1 credit, may be repeated) <br> THEATRE 339 Production Practicum: Costume Shop (minimum 1 credit, may be repeated) <br> or THEATRE 357 Production Practicum: Wardrobe and Makeup Crew |  |

Theatre Practicum ( 2 credits required):

| THEATRE 335 | Production Practicum: Crews (may be repeated) |
| :--- | :--- |
| THEATRE 336 | Production Practicum: Performance (may be repeated) |
| THEATRE 338 | Production Practicum: Scene Shop (may be repeated) |
| THEATRE 339 | Production Practicum: Costume Shop (may be repeated) |
| THEATRE 356 | Production Practicum: Properties and Scene Painting (may be repeated) |
| THEATRE 357 | Production Practicum: Wardrobe and Makeup Crew (may be repeated) |
| THEATRE 359 | Production Practicum: Theatre Management (may be repeated) |

Electives (choose 3 credits):

| THEATRE 302 | Playwriting I |
| :--- | :--- |
| THEATRE 325 | Stage Makeup |
| THEATRE 340 | Dance History |
| THEATRE 421 | Scene Painting |
| THEATRE 422 | Costume Crafts |
| THEATRE 423 | Advanced Stage Lighting |
| THEATRE 426 | Sound for Theatre |
| THEATRE 497 | Internship |
| THEATRE 498 | Independent Study |

Total Credits

## Musical Theatre

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  |  |
| THEATRE 100 | Theatre and Dance Gateway |  |
| THEATRE 131 | Acting I |  |
| THEATRE 200 | Script Analysis |  |
| THEATRE 221 | Stagecraft |  |
| THEATRE 222 | Costume Technology |  |
| Music |  |  |
| MUSIC 115 | Ear Training and Sight Singing I |  |
| MUSIC 151 | Music Theory I |  |
| or MUSIC 170 | Fundamentals of Music |  |
| Voice |  |  |
| MUS APP 45 | Elementary Voice I |  |


| THEATRE 190 | Introduction to Applied Musical Theatre Voice |  |
| :---: | :---: | :---: |
| THEATRE 290 | Intermediate Applied Musical Theatre Voice (2 credits required (repeatable for credit)) |  |
| Choral Ensemble (choose 1 course): |  |  |
| MUS ENS 261 or MUS ENS 262 | University Singers Concert Choir |  |
| Vocal Ensemble (choose 1 course): |  |  |
| MUS ENS 163 <br> or MUS ENS 165 <br> or MUS ENS 166 <br> or MUS ENS 261 <br> or MUS ENS 262 | Chamber Singers <br> Vocal Jazz Ensemble <br> Opera Workshop <br> University Singers <br> Concert Choir |  |
| Keyboard Proficiency (2 credits required): |  |  |
| MUS APP 11 | Keyboard Musicianship I |  |
| MUS APP 21 | Keyboard Musicianship II |  |
| MUS APP 31 | Keyboard Musicianship III |  |
| MUS APP 41 | Keyboard Musicianship IV |  |
| Acting/Voice |  |  |
| THEATRE 231 | Acting II |  |
| THEATRE 233 | Voice for the Actor I |  |
| Dance |  |  |
| THEATRE 128 | Jazz Dance I |  |
| THEATRE 161 | Tap Dance I |  |
| THEATRE 228 | Jazz Dance II |  |
| THEATRE 261 | Tap Dance II |  |
| Dance Elective (choose 1 course): |  |  |
| THEATRE 137 or THEATRE 141 | Ballet I <br> Period Dance Styles |  |
| Upper-Level Courses |  | 27 |

## Voice (4 credits required)

THEATRE 390 Advanced Applied Musical Theatre Voice (4 credits required (repeatable for credit))
Acting/Directing
THEATRE 305 Audition Techniques for the Actor
THEATRE 351 Directing I
or THEATRE 440 Choreography
Dance
THEATRE 328 Jazz Dance III
THEATRE 361 Tap Dance III
THEATRE 372 American Musical Theatre Dance
Theatre History/Literature

| THEATRE 309 | Theatre History I:Greek to 19th Century |
| :--- | :--- |
| THEATRE 310 | Theatre History II: Realism to Contemporary |
| THEATRE 364 | Musical Theatre History |
| Shop Practicum (4 credits required) |  |
| THEATRE 338 | Production Practicum: Scene Shop (minimum 1 credit, may be repeated) |
| THEATRE 339 | Production Practicum: Costume Shop (minimum 1 credit, may be repeated) |
| or THEATRE 357 | Production Practicum: Wardrobe and Makeup Crew |

Total Credits

## Performance

| Code | Title | Credits |
| :---: | :---: | :---: |
| Theatre Core |  | 28 |
| THEATRE 100 | Theatre and Dance Gateway |  |
| THEATRE 131 | Acting I |  |
| THEATRE 200 | Script Analysis |  |
| THEATRE 221 | Stagecraft |  |
| THEATRE 222 | Costume Technology |  |
| THEATRE 224 | Introduction to Theatre Design |  |
| THEATRE 309 | Theatre History I:Greek to 19th Century |  |
| THEATRE 310 | Theatre History II: Realism to Contemporary |  |
| Dance Core (choose 1 course): |  |  |
| THEATRE 128 | Jazz Dance I |  |
| THEATRE 145 | Modern Dance I |  |
| THEATRE 161 | Tap Dance I |  |
| Shop Practicum Core (4 credits required): |  |  |
| THEATRE 338 | Production Practicum: Scene Shop (minimum 1 credit, may be repeated) |  |
| THEATRE 339 or THEATRE 357 | Production Practicum: Costume Shop (minimum 1 credit, may be repeated) <br> Production Practicum: Wardrobe and Makeup Crew |  |
| THEATRE 357 | Production Practicum: Wardrobe and Makeup Crew (may be repeated) |  |
| Crew/Shop Practicum Core (2 credits required): |  |  |
| THEATRE 335 | Production Practicum: Crews (may be repeated) |  |
| THEATRE 336 | Production Practicum: Performance (may be repeated) |  |
| THEATRE 338 | Production Practicum: Scene Shop (may be repeated) |  |
| THEATRE 339 | Production Practicum: Costume Shop (may be repeated) |  |
| THEATRE 356 | Production Practicum: Properties and Scene Painting (may be repeated) |  |
| THEATRE 359 | Production Practicum: Theatre Management (may be repeated) |  |
| Acting/Voice/Movement (course used to satisy dance core is not required again here): |  |  |
| THEATRE 128 | Jazz Dance I |  |
| THEATRE 134 | Movement for the Actor |  |
| THEATRE 141 | Period Dance Styles |  |
| THEATRE 145 | Modern Dance I |  |
| THEATRE 161 | Tap Dance I |  |
| THEATRE 231 | Acting II |  |
| THEATRE 233 | Voice for the Actor I |  |
| Upper-Level Courses |  | 27 |
| Acting/Directing |  |  |
| THEATRE 305 | Audition Techniques for the Actor |  |
| THEATRE 331 | Acting III |  |
| THEATRE 351 | Directing I |  |
| Electives (choose 6 credits): |  |  |
| THEATRE 325 | Stage Makeup |  |
| THEATRE 333 | Voice for the Actor II |  |
| THEATRE 334 | Movement Theory and Analysis |  |
| THEATRE 352 | Directing II |  |
| THEATRE 403 | Performance Seminar |  |
| Any 300 or 400 level | urse |  |

Total Credits

## Theatre Studies

| Code | Title |
| :--- | :--- | ---: |
| Theatre Core |  |
| THEATRE 100 | Theatre and Dance Gateway |


| THEATRE 131 | Acting I |  |
| :---: | :---: | :---: |
| THEATRE 200 | Script Analysis |  |
| THEATRE 221 | Stagecraft |  |
| THEATRE 222 | Costume Technology |  |
| THEATRE 224 | Introduction to Theatre Design |  |
| THEATRE 309 | Theatre History I:Greek to 19th Century |  |
| THEATRE 310 | Theatre History II: Realism to Contemporary |  |
| Dance Core (choose 1): |  |  |
| THEATRE 128 | Jazz Dance I |  |
| THEATRE 145 | Modern Dance I |  |
| THEATRE 161 | Tap Dance I |  |
| Shop Practicum Core (4 credits required): |  |  |
| THEATRE 338 | Production Practicum: Scene Shop (minimum 1 credit, may be repeated) |  |
| THEATRE 339 or THEATRE 357 | Production Practicum: Costume Shop (minimum 1 credit, may be repeated) <br> Production Practicum: Wardrobe and Makeup Crew |  |
| Crew/Shop Practicum Core (2 credits required): |  |  |
| THEATRE 335 | Production Practicum: Crews (may be repeated) |  |
| THEATRE 336 | Production Practicum: Performance (may be repeated) |  |
| THEATRE 338 | Production Practicum: Scene Shop (may be repeated) |  |
| THEATRE 339 | Production Practicum: Costume Shop (may be repeated) |  |
| THEATRE 356 | Production Practicum: Properties and Scene Painting (may be repeated) |  |
| THEATRE 357 | Production Practicum: Wardrobe and Makeup Crew (may be repeated) |  |
| THEATRE 359 | Production Practicum: Theatre Management (may be repeated) |  |
| Upper-Level Courses |  | 6 |
| THEATRE 302 | Playwriting I |  |
| THEATRE 351 | Directing I |  |
| Electives |  |  |
| Lower Level (choose 2): |  | 6 |
| THEATRE 211 | World Theatre and Performance |  |
| THEATRE 220 | Stage Management |  |
| THEATRE 231 | Acting II |  |
| Select six credits from any 300 or 400 level THEATRE courses |  | 6 |
| Design/technical theatre (choose one course): |  | 3 |
| THEATRE 321 | Scene Design |  |
| THEATRE 322 | Costume Design |  |
| THEATRE 323 | Stage Lighting |  |
| THEATRE 325 | Stage Makeup |  |
| THEATRE 421 | Scene Painting |  |
| THEATRE 422 | Costume Crafts |  |
| THEATRE 426 | Sound for Theatre |  |

## Total Credits

## Theatre \& Dance Minors

- Theatre Studies Minor
- Dance Minor


## Theatre Studies

| Code | Title | Credits |
| :--- | :--- | ---: |
| Supporting Courses |  | 15 |
| Theatre Core $(5$ courses $)$ |  |  |
| THEATRE 100 | Theatre and Dance Gateway |  |


| THEATRE 131 | Acting I |  |
| :---: | :---: | :---: |
| THEATRE 200 | Script Analysis |  |
| THEATRE 221 | Stagecraft |  |
| THEATRE 222 | Costume Technology |  |
| Shop Practicum (2 credits required): |  |  |
| THEATRE 338 | Production Practicum: Scene Shop (minimum 1 credit, may be repeated) |  |
| THEATRE 339 or THEATRE 357 | Production Practicum: Costume Shop (minimum 1 credit, may be repeated) <br> Production Practicum: Wardrobe and Makeup Crew |  |
| Upper-Level Courses |  | 13 |
| Required: |  |  |
| THEATRE 351 | Directing I |  |
| Practicum Electives (choose 2 additional credits from the following): |  |  |
| THEATRE 335 | Production Practicum: Crews (may be repeated) |  |
| THEATRE 336 | Production Practicum: Performance (may be repeated) |  |
| THEATRE 338 | Production Practicum: Scene Shop (may be repeated) |  |
| THEATRE 339 | Production Practicum: Costume Shop (may be repeated) |  |
| THEATRE 356 | Production Practicum: Properties and Scene Painting (may be repeated) |  |
| THEATRE 357 | Production Practicum: Wardrobe and Makeup Crew (may be repeated) |  |
| THEATRE 359 | Production Practicum: Theatre Management (may be repeated) |  |
| Electives (choose 6 credits): |  |  |
| Select from any 300- | HEATRE courses |  |

## Total Credits

## Dance

| Code | Title |
| :--- | :--- |
| Core Required Courses |  |
| THEATRE 100 | Theatre and Dance Gateway |
| THEATRE 128 | Jazz Dance I |
| THEATRE 137 | Ballet I |
| THEATRE 145 | Modern Dance I |
| THEATRE 161 | Tap Dance I |
| THEATRE 228 | Jazz Dance II |
| THEATRE 261 | Tap Dance II |
| Upper-Level Core Required Courses |  |
| THEATRE 328 | Jazz Dance III |
| THEATRE 336 | Production Practicum: Performance (DanceWorks) |
| THEATRE 340 | Dance History |
| THEATRE 361 | Tap Dance III |
| THEATRE 440 | Choreography |

## Total Credits

## Theatre Curriculum Guides

The following are curriculum guides for a four-year Theatre degree program and is subject to change without notice. Students should consult a Theatre program advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option.

- Theatre Major with Emphasis in Design/Technical; Minor in Design Arts
- Theatre Major with Emphasis in Performance; Minor in Humanities
- Theatre Major with Emphasis in Theatre Studies; Minor in Humanities


## Theatre Major with Emphasis in Design/Technical; Minor in Design Arts

An example: Four year plan for Theatre Major with an emphasis in Design/Technical; Minor in Design Arts

120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HUM BIOL 102 | Introduction to Human Biology | 3 |
| THEATRE 220 | Stage Management | 3 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| THEATRE 221 | Stagecraft | 4 |
| First Year Seminar |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| ART 105 | Introductory Drawing | 3 |
| HISTORY 101 <br> or HISTORY 103 <br> or HUM STUD 201 | Foundations of Western Culture I <br> or World Civilizations I <br> or Introduction to the Humanities | 3 |
| THEATRE 222 | Costume Technology | 4 |
| THEATRE 323 | Stage Lighting | 3 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
|  | Credits | 14 |
| Sophomore |  |  |
| Fall |  |  |
| ART 107 | Two-Dimensional Design | 3 |
| THEATRE 131 | Acting I | 3 |
| THEATRE 223 | Computer Applications for Theatre | 3 |
| THEATRE 309 | Theatre History I:Greek to 19th Century | 3 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| DESIGN 131 | Introduction to Design and Culture | 3 |
| THEATRE 224 | Introduction to Theatre Design | 3 |
| THEATRE 310 | Theatre History II: Realism to Contemporary | 3 |
| THEATRE 335 | Production Practicum: Crews | 1 |
| THEATRE 339 | Production Practicum: Costume Shop | 1 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Junior |  |  |
| Fall |  |  |
| DESIGN 231 | Graphic Design Studio I | 3 |
| THEATRE 335 | Production Practicum: Crews (Or any other Production Practicum) | 1 |
| THEATRE 351 | Directing I | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| THEATRE 231 | Acting II | 3 |
| THEATRE 322 | Costume Design | 3 |
| THEATRE 339 | Production Practicum: Costume Shop | 1 |
| Design Arts Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| DESIGN 332 | Graphic Design Studio II | 3 |
| THEATRE 321 | Scene Design | 3 |
| THEATRE 426 | Sound for Theatre | 3 |


| Performance Elective |  |  |
| :--- | :--- | ---: |
| General Ed |  |  |
|  | Credits | $\mathbf{1 2}$ |
| Spring | Stage Makeup | 3 |
| THEATRE 325 | Theatre Capstone Project | $1-3$ |
| THEATRE 480 |  | 3 |
| Design Arts Upper Level Elective |  | 3 |
| Theatre Upper Level Elective |  | 3 |
| General Ed | Credits | $\mathbf{3}$ |
|  | Total Credits | $\mathbf{1 3 - 1 5}$ |

## Theatre Major with Emphasis in Performance; Minor in Humanities

An example: Four year plan for Theatre Major with Emphasis in Performance; Minor in Humanistic Studies

120 credits necessary to graduate.
Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HUM BIOL 102 | Introduction to Human Biology | 3 |
| THEATRE 128 | Jazz Dance I | 1 |
| THEATRE 131 | Acting I | 3 |
| THEATRE 233 | Voice for the Actor I | 3 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| First Year Seminar |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| THEATRE 161 | Tap Dance I | 1 |
| THEATRE 222 | Costume Technology | 4 |
| THEATRE 231 | Acting II | 3 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |



| Junior |  |  |
| :---: | :---: | :---: |
| Fall |  |  |
| THEATRE 309 | Theatre History I:Greek to 19th Century |  |
| THEATRE 336 or THEATRE 335 | Production Practicum: Performance or Production Practicum: Crews |  |
| THEATRE 351 | Directing I |  |


| Humanistic Studies Perspective Course |  | 3 |
| :---: | :---: | :---: |
| General Ed |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| THEATRE 310 | Theatre History II: Realism to Contemporary | 3 |
| THEATRE 331 | Acting III | 3 |
| THEATRE 336 | Production Practicum: Performance (Other Production Practicum Courses are also an option) | 1 |
| THEATRE 352 | Directing II | 3 |
| Dance Elective |  | 1 |
| Humanistic Studies Perspective Course |  | 3 |
| General Ed |  | 3 |
|  | Credits | 17 |
| Senior |  |  |
| Fall |  |  |
| THEATRE 305 | Audition Techniques for the Actor | 3 |
| THEATRE 336 | Production Practicum: Performance | 1 |
| Dance Elective |  | 1 |
| Humanistic Studies Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| THEATRE 333 | Voice for the Actor II | 3 |
| THEATRE 336 | Production Practicum: Performance | 1 |
| THEATRE 480 | Theatre Capstone Project | 1-3 |
| Dance Elective |  | 1 |
| Theatre Upper Level Elective |  | 3 |
| General Ed |  | 3 |
|  | Credits | 12-14 |
|  | Total Credits | 120-122 |

## Theatre Major with Emphasis in Theatre Studies; Minor in Humanities

An example: Four year plan for Theatre Major with an emphasis in Theatre Studies; Minor in Humanistic Studies 120 credits necessary to graduate.

Plan is a representation and categories of classes can be switched. Check with your advisor.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| HUM BIOL 102 | Introduction to Human Biology | 3 |
| THEATRE 131 | Acting I | 3 |
| THEATRE 222 | Costume Technology | 4 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| First Year Seminar |  | 3 |
|  | Credits | 14 |
| Spring |  |  |
| THEATRE 128 | Jazz Dance I | 1 |
| THEATRE 231 | Acting II | 3 |
| THEATRE 339 | Production Practicum: Costume Shop | 1 |
| HISTORY 101 | Foundations of Western Culture I | 3 |
| WF 105 | Research and Rhetoric | 3 |
| General Ed |  | 3 |
|  | Credits | 14 |
| Sophomore |  |  |
| Fall |  |  |
| THEATRE 161 | Tap Dance I | 1 |
| THEATRE 220 | Stage Management | 3 |
| THEATRE 221 | Stagecraft | 4 |
| THEATRE 338 | Production Practicum: Scene Shop | 1 |
| General Ed |  | 3 |


| General Ed |  | 3 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Spring |  |  |
| THEATRE 224 | Introduction to Theatre Design | 3 |
| THEATRE 339 | Production Practicum: Costume Shop | 1 |
| HISTORY 102 | Foundations of Western Culture II | 3 |
| Theatre Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 16 |
| Junior |  |  |
| Fall |  |  |
| THEATRE 309 | Theatre History I:Greek to 19th Century | 3 |
| THEATRE 351 | Directing I | 3 |
| Humanistic Studies Perspective Course |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 15 |
| Spring |  |  |
| THEATRE 310 | Theatre History II: Realism to Contemporary | 3 |
| THEATRE 336 | Production Practicum: Performance | 1 |
| Theatre Upper Level Elective |  | 3 |
| Humanistic Studies Perspectives Course |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| THEATRE 335 | Production Practicum: Crews | 1 |
| Theatre Upper Level Elective |  | 3 |
| Humanistic Studies Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
| Elective |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| HUM STUD 480 | Humanities Seminar | 3 |
| THEATRE 335 | Production Practicum: Crews | 1 |
| THEATRE 480 | Theatre Capstone Project | 1-3 |
| Theatre Upper Level Elective |  | 3 |
| General Ed |  | 3 |
| General Ed |  | 3 |
|  | Credits | 14-16 |
| - | Total Credits | 120-122 |

## Water Science

(Bachelor of Science)

## Overview of the Program

The UW-Green Bay Water Science program is an integrated program designed to provide students with the tools necessary to solve the water related challenges of today and tomorrow. Students may complete program requirements in four years. The curriculum is interdisciplinary, with a core set of courses drawn from geoscience, chemistry, environmental science, biology, physics, math and statistics, and public and environmental affairs. In addition, a diverse set of elective courses allow students to focus on subdisciplines in water science that can meet their career needs and interests. The major requirements are comprised of 71 credits, which include 33 credits of supporting courses, 22 credits of upper level core courses, and 16 credits of upper level electives. The comprehensive major has a principal focus on water's role in natural processes in Earth's systems. These skills include a solid understanding of the chemistry, surface water hydrology, groundwater, and biology of freshwater systems. UW-Green Bay Water Science majors have opportunities to work as research assistants on faculty projects, develop internships, or to conduct their own independent projects. UW-Green Bay faculty members are very active in research on water and wastewater treatment, runoff pollution, stream hydrology, groundwater quantity and quality, limnology, and aquatic ecology.

## Student Learning Outcomes and Program Objectives

1. Students will be able to describe the role water plays in the lithosphere, hydrosphere, cryosphere, atmosphere, and biosphere, with emphasis on interactions between these reservoirs.
2. Students will apply the scientific method to investigations of hydrologic processes, Earth systems, and interactions among the various physical and biological realms utilizing standard scientific field and laboratory methods.
3. Students will demonstrate an understanding of the hydrology of streams and lake systems and the role water has in landscape\#forming processes that act on the Earth's surface.
4. Students will be able to describe the processes of and importance of groundwater flow and aquifer systems.
5. Students will be able to compare chemical interactions that occur in various hydrologic settings and their importance to water resources, geological and biological systems, and water/wastewater treatment.
6. Students will be able to describe the role water plays in atmospheric systems and the climate system.
7. Students will be able to describe the interactions between water systems and ecosystems.
8. Students will be able to describe the challenges of maintaining surface and ground water quality.
9. Students will apply their knowledge base and research skills to current issues pertaining to water resources, management, and remediation, with emphasis on related economic, social, and public policy dimensions.
10. Students will analyze, interpret, and report on laboratory and field findings using appropriate statistical techniques and computer applications.

## Major Area of Emphasis (p. 368)

Students must complete requirements in one of the following areas of emphasis: (p. 368)
-Water Science (p. 368)

- Water Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program (p. 368)


## Curriculum Guide

The following is an example of a four-year Water Science program and is a representation of one possible pathway. Students are encouraged to plan ahead and check with your advisor to ensure that they have the most accurate and up-to-date information available about a particular four-year degree option. Because some courses are fall/spring and even/odd year basis, timing of certain courses may vary. Students are encouraged to consider a minor that pairs well with Water Science. 120 credits necessary to graduate.

| Course | Title | Credits |
| :---: | :---: | :---: |
| Freshman |  |  |
| Fall |  |  |
| WATER 201 | Introduction to Water Science | 3 |
| GEOSCI 202 | Physical Geology | 4 |
| First Year Seminar |  | 3 |
| English Comp 100 or Gen Ed |  | 3 |
| Gen Ed or Math Course |  | 3 |
|  | Credits | 16 |
| Spring |  |  |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution | 3 |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution | 1 |
| GEOSCI 222 | Ocean of Air: Weather and Climate | 3 |
| MATH 260 | Introductory Statistics | 4 |
| Gen Ed |  | 4 |
|  | Credits | 15 |
| Sophomore |  |  |
| Fall |  |  |
| CHEM 211 | Principles of Chemistry I | 4 |
| CHEM 213 | Principles of Chemistry I Laboratory | 1 |
| ENV SCI 330 | Hydrology | 3 |
| ENV SCI 401 or ENV SCI 403 | Stream Ecology or Limnology | 4 |
| Gen Ed or Elective |  | 4 |
|  | Credits | 16 |
| Spring |  |  |
| CHEM 212 | Principles of Chemistry II | 4 |
| CHEM 214 | Principles of Chemistry II Laboratory | 1 |
| ENV SCI 335 | Water and Waste Water Treatment | 3 |
| ENV SCI 337 | Environmental GIS | 3 |


| Gen Ed or Elective |  | 4 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Junior |  |  |
| Fall |  |  |
| $\begin{aligned} & \text { ENV SCI } 433 \\ & \quad \text { or EPP } 351 \end{aligned}$ | Ground Water: Resources and Regulations ${ }^{1}$ or Water Resources Policy and Management | 3 |
| PHYSICS 103 or PHYSICS 201 | Fundamentals of Physics I or Principles of Physics I | 4 |
| PHYSICS 203 | Introductory Physics Lab I | 1 |
| WATER 444 | Aqueous Geochemistry | 3 |
| Elective |  | 4 |
|  | Credits | 15 |
| Spring |  |  |
| $\begin{aligned} & \text { EPP } 351 \\ & \quad \text { or ENV SCI } 433 \end{aligned}$ | Water Resources Policy and Management or Ground Water: Resources and Regulations | 3 |
| GEOSCI 432 | Hydrogeology | 3 |
| WATER 321 | Stable Isotopes in the Environment (Recommended) | 1 |
| Elective |  | 6 |
| Gen Ed |  | 3 |
|  | Credits | 16 |
| Senior |  |  |
| Fall |  |  |
| WATER 498 or WATER 497 | Independent Study (Recommended) or Internship | 1-4 |
| $\begin{aligned} & \text { ENV SCI } 403 \\ & \text { or ENV SCI } 401 \end{aligned}$ | Limnology or Stream Ecology | 4 |
| Elective |  | 4 |
| Elective |  | 4 |
|  | Credits | 13-16 |
| Spring |  |  |
| Electives |  | 8 |
| Gen Ed |  | 6 |
| WATER 497 or WATER 498 | Internship (Recommended) or Independent Study | 1-3 |
|  | Credits | 15-17 |
|  | Total Credits | 121-126 |

1 Choose one of these two courses; check periodicity closely.

## Faculty

Rebecca Abler; Professor; Ph.D., Virginia Polytechnic Institute and State University
Patrick S Forsythe; Professor; Ph.D., Michigan State University*
Richard Hein; Professor; Ph.D., University of Rhode Island
John A Luczaj; Professor; Ph.D., Johns Hopkins University*
Patricia A Terry; Professor; Ph.D., University of Colorado*
Michael E Zorn; Professor; Ph.D., University of Wisconsin - Madison*
Michael Holly; Associate Professor; Ph.D., University of Wisconsin - Madison
Kpoti (Stefan) Gunn; Assistant Professor; Ph.D., Ohio State University
Christopher Houghton; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Water Science Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Water Science
- Water Science (Accelerated) - Integrated with graduate Environmental Science \& Policy program


## Water Science

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 33 |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution |  |
| GEOSCI 202 | Physical Geology |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| MATH 260 | Introductory Statistics |  |
| WATER 201 | Introduction to Water Science |  |
| Physics (choose one option): |  |  |
| PHYSICS 103 <br> \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 <br> \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Upper-Level Required Courses |  | 19 |
| ENV SCI/ET 330 | Hydrology |  |
| GEOSCI 432 | Hydrogeology |  |
| WATER 444 | Aqueous Geochemistry |  |
| Lakes/Streams (choose one): |  |  |
| ENV SCI 401 | Stream Ecology |  |
| ENV SCI 403 | Limnology |  |
| Water Resources (choose one): |  |  |
| ENV SCI 433 | Ground Water: Resources and Regulations |  |
| EPP 351 | Water Resources Policy and Management |  |
| Waste Treatment (choose one:): |  |  |
| ENV SCI 335 | Water and Waste Water Treatment |  |
| ET 331 | Advanced Water and Waste Water Treatment |  |
| Elective Courses (choose 16 credits): |  | 16 |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 341 | Ichthyology |  |
| BIOLOGY 357 | Marine Biology |  |
| CHEM 311 | Analytical Chemistry |  |
| CHEM 413 | Instrumental Analysis |  |
| ECON 305 | Environmental Economics |  |
| ENV SCI 305 | Environmental Fate and Transport |  |
| ENV SCI 320 | The Soil Environment |  |
| ENV SCI 337 | Environmental GIS |  |
| ENV SCI 338 | Environmental Modeling |  |
| ENV SCI 339 | Scientific Writing |  |
| ENV SCI 401 | Stream Ecology |  |
| ENV SCI 403 | Limnology |  |
| ENV SCI/ET 424 | Hazardous and Toxic Materials |  |
| ENV SCI 425 | Global Climate Change |  |
| ENV SCI/ET 433 | Ground Water: Resources and Regulations |  |
| ENV SCI 491 | Senior Thesis/Research in Environmental Science |  |


| ENV SCI 492 | Practicum in Environmental Science |
| :--- | :--- |
| EPP 351 | Water Resources Policy and Management |
| EPP 379 | Natural Resources Policy, Law, and Administration |
| GEOSCI 325 | Regional Climatology |
| POL SCI 378 | Environmental Law |
| WATER 321 | Stable Isotopes in the Environment |
| WATER 410 | Agriculture-Water Nexus in Wisconsin |
| WATER 411 | Agriculture-Water Nexus Field Experience |
| WATER 491 | Senior Thesis/Research in Water Science |
| WATER 492 | Special Topics in Water Science |
| WATER 497 | Internship |
| WATER 498 | Independent Study |
| Freshwater Collaborative of Wisconsin ${ }^{1}$ |  |

## Total Credits

1 May use up to 8 credits of Specialty and Field Immersion Courses offered by Freshwater Collaborative of Wisconsin

## Water Science (Accelerated) -Integrated with graduate Environmental Science \& Policy program

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 33 |
| BIOLOGY 203 | Principles of Biology: Organisms and Evolution |  |
| BIOLOGY 204 | Principles of Biology Lab: Organisms and Evolution |  |
| CHEM 211 | Principles of Chemistry I |  |
| CHEM 212 | Principles of Chemistry II |  |
| CHEM 213 | Principles of Chemistry I Laboratory |  |
| CHEM 214 | Principles of Chemistry II Laboratory |  |
| GEOSCI 202 | Physical Geology |  |
| GEOSCI 222 | Ocean of Air: Weather and Climate |  |
| MATH 260 | Introductory Statistics |  |
| WATER 201 | Introduction to Water Science |  |
| Physics (choose one option): |  |  |
| PHYSICS 103 \& PHYSICS 203 | Fundamentals of Physics I and Introductory Physics Lab I |  |
| PHYSICS 201 \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I |  |
| Upper-Level Required Courses |  | 19 |
| ENV SCI 335 | Water and Waste Water Treatment |  |
| ENV SCI/ET 330 | Hydrology |  |
| GEOSCI 432/632 | Hydrogeology |  |
| WATER 444/644 | Aqueous Geochemistry |  |
| Lakes/Streams (choose one): |  |  |
| ENV SCI 401/601 | Stream Ecology |  |
| ENV SCI 403/603 | Limnology |  |
| Water Resources (choose one): |  |  |
| ENV SCI 433/633 | Ground Water: Resources and Regulations |  |
| EPP 351 | Water Resources Policy and Management |  |
| Elective Courses (Choose 16 credits) 16 |  |  |
| BIOLOGY 322 | Environmental Microbiology |  |
| BIOLOGY 341 | Ichthyology |  |
| BIOLOGY 357 | Marine Biology |  |
| CHEM 311 | Analytical Chemistry |  |


| CHEM $413 / 613$ | Instrumental Analysis |
| :--- | :--- |
| ECON 305 | Environmental Economics |
| ENV SCI 305 | Environmental Fate and Transport |
| ENV SCI $320 / 520$ | The Soil Environment |
| ENV SCI 337 | Environmental GIS |
| ENV SCI 338 | Environmental Modeling |
| ENV SCI 339 | Scientific Writing |
| ENV SCI 401 | Stream Ecology |
| ENV SCI 403 | Limnology |
| ENV SCI $424 / 624 /$ ET 424 | Hazardous and Toxic Materials |
| ENV SCI $425 / 625$ | Global Climate Change |
| ENV SCI $433 / 633$ | Ground Water: Resources and Regulations |
| ENV SCI 491 | Senior Thesis/Research in Environmental Science |
| ENV SCI 492 | Practicum in Environmental Science |
| EPP 351 | Water Resources Policy and Management |
| EPP 379 | Natural Resources Policy, Law, and Administration |
| GEOSCI 325 | Regional Climatology |
| POL SCI 378 | Environmental Law |
| WATER 321 | Stable Isotopes in the Environment |
| WATER 410 | Agriculture-Water Nexus in Wisconsin |
| WATER 411 | Agriculture-Water Nexus Field Experience |
| WATER 491 | Senior Thesis/Research in Water Science |
| WATER 492 | Special Topics in Water Science |
| WATER 497 | Internship |
| WATER 498 | Independent Study |
| Freshwater Collaborative of Wisconsin |  |

Total Credits

## Women's, Gender, and Sexuality Studies

Women's, Gender, and Sexuality Studies (WGSS) explores:

- women's past and present contributions to societies as persons, creators, and thinkers.
- the intersectional diversity--racial, economic, sexual, religious, generational-of women's, men's, and nonbinary individuals' experiences.
- scholarship exposing the structural and institutional factors that perpetuate sexism, racism, classism, heteronormativity, and transphobia.

While WGSS is a discipline in its own right, our interdisciplinary program draws upon methods and content from a wide range of programs and majors, including anthropology, literature and the arts, biology, economics, history, political science, psychology, religion, and sociology. Our minor prepares students to:

- better understand individuals, particularly but not only women, and the social structures that impact the lives of individuals.
- think critically about the intersectional issues which they will face in their lives professionally and personally.
- extend their intellectual development by helping them to understand women's accomplishments and capabilities, and by looking beyond the limits of traditional gender-differentiated roles.
- think, research, and write while using strong interdisciplinary skills.

Thus, Women's, Gender, and Sexuality Studies is an essential component of a liberal arts education.
Any student may elect Women's, Gender, and Sexuality Studies as a minor in addition to their chosen major. The minor is excellent preparation for further study in law as well as for graduate programs in WGSS, psychology, social work, literature, and education. Graduates with WGSS minors are working in a variety of fields, including business, child and family services, education, journalism, and social service administration.

## Women's, Gender, and Sexuality Studies Program Learning Outcomes

A student who completes a Women and Gender Studies minor at UWGB will demonstrate the ability to:

- critically read, recognize, and analyze the gendered identities presented to them;
- understand how gender expectations function in culture, history, and social dynamics
- investigate how gender constructs impact their everyday lives and issues within their major or current field of study
- begin to appreciate/understand other cultures and peoples through investigation of the role that gender plays in their societies
- construct alternative ways to analyze, synthesize, and evaluate their views of their major and related fields
- initiate positive change in terms of gender definition/stereotypes
- enhance their overall general education by synthesizing the various disciplines through this minor's pedagogical approach


## Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6 |
| WOST 241 | Introduction to Women's, Gender, and Sexuality Studies |  |
| Choose one: |  |  |
| ENGLISH 206 | Women in Literature |  |
| HUM BIOL 206 | Fertility, Reproduction, and Family Planning |  |
| MUSIC 272 | Women in the Performing Arts |  |
| SOC WORK 213 | Human Trafficking |  |
| SOCIOL 238 | Sociological Perspectives on Gender |  |
| WOST 102 | Women's Voices |  |
| WOST 198 | First Year Seminar |  |
| WOST 201 | Introduction to LGBTQ Studies |  |
| WOST 203 | Gender in Popular Culture |  |
| WOST 247 | Latin American and Latina Women |  |
| WOST 250 | Introductory Topics in Women's, Gender, and Sexuality Studies |  |
| WOST 299 | Travel Course |  |
| Upper-Level Courses |  | 12 |
| Choose 4 of the following courses: |  |  |
| ART 379 | Women, Art and Image |  |
| DJS 348 | Gender and the Law |  |
| FNS 360 | Women and Gender in First Nations Communities |  |
| HISTORY 370 | History of Sexuality in the U.S. |  |
| HISTORY 380 | U.S. Women's History |  |
| HUM BIOL 324 | The Biology of Women |  |
| PSYCH 401 | Psychology of Women and Gender |  |
| SOCIOL 375 | Sociology of Sexual and Intimate Relations |  |
| WOST 350 | Topics in Women's, Gender, and Sexuality Studies |  |
| WOST 437 | Feminist Theory |  |
| WOST 497 | Internship |  |
| WOST 498 | Independent Study |  |
| WOST 499 | Travel Course |  |

## Total Credits

## Faculty

Kathleen C Burns; Professor; Ph.D., University of Massachusetts
Bryan James Carr; Professor; Ph.D., University of Oklahoma
Alison A Gates; Professor; M.F.A., University of Washington
Rebecca A Meacham; Professor; Ph.D., University of Cincinnati
Rebecca L Nesvet; Professor; Ph.D., University of North Carolina - Chapel Hill
Christine A Smith; Professor; Ph.D., University of Pittsburgh
Jennifer Young; Professor; Ph.D., Case Western Reserve University

Dana Atwood; Associate Professor; Ph.D., Western Michigan University
Andrew W Austin; Associate Professor; Ph.D., University of Tennessee
Ann Mattis; Associate Professor; Ph.D., Loyola University
Valerie Murrenus-Pilmaier; Associate Professor; Ph.D., Marquette University
Lisa M Poupart; Associate Professor; Ph.D., Arizona State University*
Kimberley A Reilly; Associate Professor; Ph.D., University of Chicago, chair
Jolanda M Sallmann; Associate Professor; Ph.D., University of Wisconsin - Madison*
Courtney J Sherman; Associate Professor; D.M.A., Arizona State University
Rebecca Stone-Thornberry; Associate Professor; Ph.D., University of Colorado
Samuel E Watson; Associate Professor; Ph.D., University of Kansas
Lisa Wicka; Associate Professor; M.F.A., Purdue University
Tracy Rysavy; Associate Teaching Professor; M.A., Boston College
Erica Wiest; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee

## Writing and Applied Arts

(Bachelor of Fine Arts)

## Overview

To meet industry demand for exceptional writing skills infused with creativity, UW-Green Bay offers the first and only degree of its kind in the UWSystem: The Bachelor of Fine Arts in Writing and Applied Arts.

## Craft-Focused Workshops, Community-Facing Opportunities

The B.F.A. in Writing and Applied Arts is a craft-focused, community-facing program offering a range of workshops, including novel writing and revision, romance writing, poetry, world-building, creative nonfiction, environmental writing, grant writing, professional writing, placemaking, and writing for professional clients. Small class sizes (10 to 25 students) place student work at the center of discussion. Students can write and revise a novel, poetry manuscript, memoir, tabletop game narrative, or public-facing awareness campaign with mentored feedback. In addition, through its focus on Applied Arts, the B.F.A. in Writing and Applied Arts offers opportunities for students to discover and tell our region's untold stories-connecting a student's love of reading and writing to real-world problem-solving, advocacy, and change.

## The Business of Writing

As emerging professionals, B.F.A. students develop expertise transferrable to any workplace. They also gain skills in user experience, workflow, audience awareness, listening, empathy, communicating complex ideas, and critical thinking - skills ranked in the top 10 most sought-after qualities by job recruiters. In the final year of the B.F.A in Writing and Applied Arts, students engage in at least nine credit hours of hands-on expertise in areas such as small press publishing, copywriting, writing for nonprofits, podcasting, project development, journal editing, digital and social media, game writing, and marketing.

## Choose One of Four Emphases

Students choose one of four interdisciplinary emphases:

- Community Storytelling Emphasis. Students in the Community Storytelling Emphasis bring writing to broader communities by organizing regional events, developing community workshops, writing for social justice, and advocating to tell untold stories.
- Editing and Publishing Emphasis. Students in the Editing and Publishing Emphasis learn all aspects of editorial production in preparation to become copyeditors, publishers, publicists, content developers, and promotional and marketing professionals.
- Game Writing Emphasis. Students in the Game Writing Emphasis use skills of game craft, world-building, and choice networks to become creators of interactive experiences for tabletops, screens, historical sites, and public spaces.
- Professional and Technical Writing Emphasis. Students in the Professional and Technical Writing Emphasis work with clients to master the production of effective technical manuals, dynamic data visualizations and user interfaces, as well as engaging multimedia designs.


## Program Outcomes for B.F.A. Students

- Students will create, draft, and revise original works in multiple genres and forms.
- Students will analyze the techniques, construction, and production of various written expressions.
- Students will critique works by peers and published writers alike in various classroom settings, including the craft workshop.
- Students will situate their work and the works of other writers within multiple larger audiences of readers, writers, the publishing industry, and other relevant markets.
- Students will explore sources of support for storytelling projects, including their own individual projects.
- Students will engage with issues of equity, diversity, inclusion, collaboration, and ethics as they impact craft, writing, and publication in professional, classroom, and community settings
- Students will interpret, research, and evaluate works of literature and related media by placing them in historical, philosophical, psychological, intertextual, and other contexts appropriate to the discipline.
- Students will articulate their aesthetic choices using appropriate artistic and professional terms.
- Students will develop proficiency in producing, copyediting, curating, managing, and disseminating various kinds of projects in an effort to engage communities within and outside of UW-Green Bay.
- Students will use reading, writing, and editing as vehicles for their own personal, intellectual, and imaginative growth.
- Students will make, break, succeed, and fail— and in failing, practice the writer's skills of revision and resilience.


## Major Area of Emphasis (p. 375)

Students must complete requirements in one of the following areas of emphasis: (p. 375)

- Community Storytelling (p. 375)
- Editing and Publishing (p. 375)
- Game Writing (p. 375)
- Professional and Technical Writing (p. 375)

Rebecca A. Meacham; Professor; Ph.D., University of Cincinnati, Chair
Charles A. Rybak; Professor; Ph.D., University of Cincinnati
Ann Mattis; Associate Professor; Ph.D., Loyola University
Valerie Murrenus Pilmaier; Associate Professor; Ph.D., Marquette University
Rebecca L. Nesvet; Associate Professor; Ph.D., University of North Carolina - Chapel Hill
Jennifer Young; Associate Professor; Ph.D., Case Western Reserve University
Julialicia Case; Assistant Professor; Ph.D., University of Cincinnati
Jonas Gardsby; Assistant Professor; Ph.D., University of Minnesota
Kristopher Purzycki; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee
Christopher Williams; Assistant Professor; Ph.D., University of Wisconsin - Milwaukee
Roshelle L. Amundson; Assistant Teaching Professor;M.F.A., Goddard College
Paul Belanger; Assistant Teaching Professor; Ph.D., Deakin University
Tara DaPra; Assistant Teaching Professor; M.F.A.,University of Minnesota
Tracy Rysavy; Assistant Teaching Professor; M.A., Boston College
Albert C. Sears, Assistant Teaching Professor, Ph.D., Lehigh University
Erica Wiest; Assistant Teaching Professor; Ph.D., University of Wisconsin - Milwaukee
William M. Yazbec; Assistant Teaching Professor; Ph.D., Florida State University

## Writing and Applied Arts Major

## Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Community Storytelling
- Editing and Publishing
- Game Writing
- Professional and Technical Writing


## Community Storytelling

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| Required |  |  |
| ENGLISH 200 | Arts Entrepreneurship |  |
| ENGLISH 201 | Ethics in Writing |  |
| ENGLISH 212 | Introduction to Creative Writing |  |
| ENGLISH 226 | Grammar |  |
| ENGLISH 227 | Copyediting and Workflow |  |
| ENGLISH 290 | Literary Studies |  |
| Arts in Society (choose one): |  |  |
| ARTS MGT 257 | Arts in the Community |  |
| COMM 102 | Introduction to Communication |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| DESIGN 131 | Introduction to Design and Culture |  |
| FNS 210 | American Indians In Film |  |
| FNS 225 | Introduction to First Nations Studies |  |
| HUM STUD 110 | Introduction to Film |  |
| HUM STUD 200 | Introduction to Digital and Public Humanities |  |
| HUM STUD 210 | Film and Society |  |
| THEATRE 200 | Script Analysis |  |
| Upper-Level Courses |  | 36-38 |
| Required Intermediate Writing Course |  |  |
| ENGLISH 301 | Intermediate Creative Writing |  |
| Required Craft Workshop |  |  |
| ENGLISH 309 | Co-Creative Writing Workshop |  |
| Other Craft Workshops (choose 6-8 credits): |  |  |
| ENGLISH 302 | Short Fiction Writing Workshop |  |
| ENGLISH 303 | Advanced Poetry Writing Workshop |  |
| ENGLISH 304 | Creative Nonfiction Writing |  |
| ENGLISH 305 | Novel Writing Workshop |  |
| ENGLISH 306 | Novel Revision Workshop |  |
| ENGLISH 307 | Writing the Environment Workshop |  |
| ENGLISH 310 | Topics in Game Writing |  |
| ENGLISH 312 | Topics in Creative Writing |  |
| ENGLISH 314 | Topics in Professional \& Technical Writing |  |
| Upper-Level Skills Courses (choose two): |  |  |
| ENGLISH 327 | Digital Platforms for Publishing |  |
| ENGLISH 328 | Interfaces |  |
| ENGLISH 329 | Placemaking and Writing |  |
| Historical Context |  |  |
| ENGLISH 326 | Topics in Publishing |  |


| or ENGLISH 340 | History of the English Language |
| :---: | :---: |
| Upper-Level Literature Courses (choose two): ${ }^{1}$ |  |
| ENGLISH 315 | The British Novel |
| ENGLISH 320 | Major Drama |
| ENGLISH 322 | Major Poetry |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 333 | Literary Themes |
| ENGLISH 335 | Literary Eras |
| ENGLISH 336 | American Ethnic Literature |
| ENGLISH 338 | World Literatures |
| ENGLISH 340 | History of the English Language |
| ENGLISH 344 | African American Literature |
| ENGLISH 345 | LGBTQ Literature |
| ENGLISH 364 | Literary Topics |
| ENGLISH 431 | Shakespeare |
| ENGLISH 436 | Major Author(s) |
| ENGLISH 499 | Travel Course |
| Applied Arts: Applied Arts credits should be distributed as follows: 3 cr. Practicum; 3 cr. Internship; remaining 3 cr. either Practicum or Internship |  |
| Practicum courses (3-6 credits; each course is repeatable for credit) |  |
| ENGLISH 224 | Practicum in Literary Publishing |
| ENGLISH 324 | Sheepshead Review Practicum |
| ENGLISH 410 | Live Video Streaming Practicum |
| ENGLISH 424 | Book Editing Practicum |
| ENGLISH 428 | Practicum in Community Engaged Writing |
| Internship in Community Storytelling Area of Emphasis (3-6 credits) |  |

Total Credits $57-59$

1. Historical Literary Context courses not used to fulfil that requirement may be used as a Literature elective.

## Editing and Publishing

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| Required |  |  |
| ENGLISH 201 | Ethics in Writing |  |
| ENGLISH 212 | Introduction to Creative Writing |  |
| ENGLISH 226 | Grammar |  |
| ENGLISH 227 | Copyediting and Workflow |  |
| ENGLISH 290 | Literary Studies |  |
| Choose one: |  |  |
| ENGLISH 200 | Arts Entrepreneurship |  |
| ENGLISH 228 | Introduction to Technical and Professional Writing |  |
| Arts in Society (choose one): |  |  |
| ARTS MGT 257 | Arts in the Community |  |
| COMM 102 | Introduction to Communication |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| DESIGN 131 | Introduction to Design and Culture |  |
| HUM STUD 200 | Introduction to Digital and Public Humanities |  |
| THEATRE 200 | Script Analysis |  |
| Upper-Level Courses |  | 36-38 |
| Required Intermediate Writing Course |  |  |
| ENGLISH 301 | Intermediate Creative Writing |  |
| Craft Workshops (choose 9-11 | redits): |  |


| ENGLISH 302 | Short Fiction Writing Workshop |
| :---: | :---: |
| ENGLISH 303 | Advanced Poetry Writing Workshop |
| ENGLISH 304 | Creative Nonfiction Writing |
| ENGLISH 305 | Novel Writing Workshop |
| ENGLISH 306 | Novel Revision Workshop |
| ENGLISH 307 | Writing the Environment Workshop |
| ENGLISH 309 | Co-Creative Writing Workshop |
| ENGLISH 310 | Topics in Game Writing |
| ENGLISH 312 | Topics in Creative Writing |
| ENGLISH 314 | Topics in Professional \& Technical Writing |
| Upper-Level Skills Courses (choose two): |  |
| ENGLISH 327 | Digital Platforms for Publishing |
| ENGLISH 328 | Interfaces |
| ENGLISH 329 | Placemaking and Writing |
| Historical Context |  |
| ENGLISH 326 | Topics in Publishing |
| or ENGLISH 340 | History of the English Language |
| Upper-Level Literature Courses (choose two): ${ }^{1}$ |  |
| ENGLISH 315 | The British Novel |
| ENGLISH 320 | Major Drama |
| ENGLISH 322 | Major Poetry |
| ENGLISH 331 | Major American Prose Fiction |
| ENGLISH 333 | Literary Themes |
| ENGLISH 335 | Literary Eras |
| ENGLISH 336 | American Ethnic Literature |
| ENGLISH 338 | World Literatures |
| ENGLISH 340 | History of the English Language |
| ENGLISH 344 | African American Literature |
| ENGLISH 345 | LGBTQ Literature |
| ENGLISH 364 | Literary Topics |
| ENGLISH 431 | Shakespeare |
| ENGLISH 436 | Major Author(s) |

Applied Arts: Applied Arts credits should be distributed as follows: $\mathbf{3}$ cr. Practicum; 3 cr. Internship; remaining 3 cr. either Practicum or Internship

| Required Practicum course in Publishing (choose at least one course; all are repeatable twice for credit) |  |
| :--- | :--- |
| ENGLISH 224 | Practicum in Literary Publishing |
| ENGLISH 324 | Sheepshead Review Practicum |
| ENGLISH 424 | Book Editing Practicum |
| Other Practicum Courses |  |
| ENGLISH 410 | Live Video Streaming Practicum |
| ENGLISH 428 | Practicum in Community Engaged Writing |
| Internship in Editing and Publishing Area of Emphasis (3-6 credits) |  |

## Total Credits

1. Historical Literary Context courses not used to fulfil that requirement may be used as a Literature elective.

## Game Writing

| Code | Title |
| :--- | :--- | ---: |
| Supporting Courses |  |
| Required |  |
| ENGLISH 201 | Ethics in Writing |
| ENGLISH 212 | Introduction to Creative Writing |
| ENGLISH 226 | Grammar |



| ENGLISH 224 | Practicum in Literary Publishing |
| :--- | :--- |
| ENGLISH 324 | Sheepshead Review Practicum |
| ENGLISH 424 | Book Editing Practicum |
| ENGLISH 428 | Practicum in Community Engaged Writing |
| Internship in Game Writing Area of Emphasis (3-6 credits) |  |

## Total Credits

## Professional and Technical Writing

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 21 |
| ENGLISH 201 | Ethics in Writing |  |
| ENGLISH 212 | Introduction to Creative Writing |  |
| ENGLISH 226 | Grammar |  |
| ENGLISH 227 | Copyediting and Workflow |  |
| ENGLISH 228 | Introduction to Technical and Professional Writing |  |
| ENGLISH 290 | Literary Studies |  |
| Arts in Society (choose one): |  |  |
| ARTS MGT 257 | Arts in the Community |  |
| COMM 102 | Introduction to Communication |  |
| COMM 166 | Fundamentals of Interpersonal Communication |  |
| DESIGN 131 | Introduction to Design and Culture |  |
| HUM STUD 200 | Introduction to Digital and Public Humanities |  |
| Upper-Level Courses |  | 36-38 |
| Required Intermediate Writing Course |  |  |
| ENGLISH 327 | Digital Platforms for Publishing |  |
| Required Craft Workshop (repeatable twice for credit) |  |  |
| ENGLISH 314 | Topics in Professional \& Technical Writing |  |
| Other Craft Workshops (choose up to two other courses): |  |  |
| ENGLISH 302 | Short Fiction Writing Workshop |  |
| ENGLISH 303 | Advanced Poetry Writing Workshop |  |
| ENGLISH 304 | Creative Nonfiction Writing |  |
| ENGLISH 305 | Novel Writing Workshop |  |
| ENGLISH 306 | Novel Revision Workshop |  |
| ENGLISH 307 | Writing the Environment Workshop |  |
| ENGLISH 309 | Co-Creative Writing Workshop |  |
| ENGLISH 310 | Topics in Game Writing |  |
| ENGLISH 312 | Topics in Creative Writing |  |
| Upper-Level Skills Courses |  |  |
| ENGLISH 328 | Interfaces |  |
| ENGLISH 329 | Placemaking and Writing |  |
| Historical Context |  |  |
| ENGLISH 326 | Topics in Publishing |  |
| or ENGLISH 340 | History of the English Language |  |
| Upper-Level Literature Courses (choose two): |  |  |
| ENGLISH 315 | The British Novel |  |
| ENGLISH 320 | Major Drama |  |
| ENGLISH 322 | Major Poetry |  |
| ENGLISH 326 | Topics in Publishing ${ }^{1}$ |  |
| ENGLISH 331 | Major American Prose Fiction |  |
| ENGLISH 333 | Literary Themes |  |
| ENGLISH 335 | Literary Eras |  |
| ENGLISH 336 | American Ethnic Literature |  |


| ENGLISH 338 | World Literatures |
| :--- | :--- |
| ENGLISH 340 | History of the English Language ${ }^{1}$ |
| ENGLISH 344 | African American Literature |
| ENGLISH 345 | LGBTQ Literature |
| ENGLISH 364 | Literary Topics |
| ENGLISH 431 | Shakespeare |
| ENGLISH 436 | Major Author(s) |
| ENGLISH 499 | Travel Course |
| Applied Arts: Applied Arts credits should be distributed as follows: $\mathbf{3}$ cr. Practicum; 3 cr. Internship; remaining 3 cr. either |  |
| Practicum or Internship |  |
| Required Practicum Course (repeatable twice for credit) |  |
| ENGLISH 428 | Practicum in Community Engaged Writing |
| Other Practicum Courses | Practicum in Literary Publishing |
| ENGLISH 224 | Sheepshead Review Practicum |
| ENGLISH 324 | Live Video Streaming Practicum |
| ENGLISH 410 | Book Editing Practicum |
| ENGLISH 424 | $57-59$ |
| Internship in Professional and Technical Writing Area of Emphasis (3-6 credits) |  |
| Total Credits |  |

1. Historical Literary Context courses not used to fulfill that requirement may be used as a Literature elective.

## Certificates

The Registrar's office transcribes certificates earned on an academic record when a student completes a degree. The Registrar's office does not transcribe a certificate on the academic record for students who do not earn a degree, but who complete a series of classes that are a part of a certificate program. Typically academic departments are responsible for printing and awarding a certificate of completion.

A

- Applied Politics (p. 381)


## C

- Child Welfare (p. 382)
- Civic and Community Engagement (p. 385)

D

- Data Analytics (p. 382)
- Digital Marketing and Sales Management (p. 382)

E

- Electrical Engineering Principles (p. 383)
- Emergency Management (p. 383)
- Entrepreneurship (p. 384)


## F

- Foundations of Education (p. 384)
- French Language (p. 384)


## G

- Geographic Information Systems (p. 386)
- German Engineering (p. 386)


## H

- Health Information Management (p. 386)

L

- Lesbian, Gay, Bisexual, Transgender, and Queer Studies (p. 387)


## M

- Management in Health Systems (p. 388)
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- Mechanical Engineering Principles (p. 389)
- Multicultural U.S. History (p. 390)


## N

- Nonprofit Management (p. 390)

0

- Organizational Development (p. 391)

P

- Physical Education (p. 391)
- Professional Ethics (p. 392)


## R

- Rising Leadership (p. 393)


## S

- Spanish/English Translation and Interpretation (p. 394)
- Supply Chain Management (p. 394)
- Sustainability (p. 395)


## T

- Teaching English as a Second Language (p. 396)

W

- Workforce Solutions (p. 396)


## Applied Politics

## Certificate Program

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting Courses |  | 6-7 |
| POL SCI 101 | American Government and Politics |  |
| Statistics (choose one): |  |  |
| BUSAN 220 | Introduction to Business Statistics |  |
| MATH 260 | Introductory Statistics |  |
| PSYCH 205 | Social Science Statistics |  |
| Upper Level Requirements |  | 15 |
| COMM 305 | Principles of Public Relations/Corporate Communications |  |
| COMM 382 | Public Relations Campaigns |  |
| COMM 477 | Social Media Strategies |  |
| POL SCI 318 | Political Behavior |  |


| Electives (choose one): |  |
| :--- | :--- |
| POL SCI 316 | Congress: Politics and Policy |
| POL SCI 353 | Politics of Developing Areas |
| POL SCI 370 | Foreign and Defense Policies |
| POL SCI 380 | Global Environmental Politics and Policy |
| POL SCI 478 | Honors in the Major |
| POL SCI 497 | Internship |
| POL SCI 498 | Independent Study |
| PUB ADM 408 | Public Policy Analysis |

Total Credits
21-22

## Child Welfare

The Child Welfare Certificate Program, housed administratively in the Social Work Professional Program, is a campus-wide program open to students in any major. The certificate orients and prepares students for a career in child welfare and family services. The course work provides participants with a background in the development, organization and functioning of public, private and tribal child welfare services; examines ethics in practice within human services; increases understanding of basic family lifecycle principles; and emphasizes student development of practice skills across the continuum of child welfare services.

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required Courses: |  | 3 |
| SOC WORK 307 | Ethics in Practice | 3 |
| SOC WORK 351 | Overview of the Child Welfare System |  |
| SOC WORK 375 | Family Principles and Patterns | 3 |
| SOC WORK 451 | Child Welfare Practice | 3 |
| SOC WORK 455 | First Nations Futures and Decolonizing Social Work | 2 |
| Total Credits |  | $\mathbf{1 4}$ |

## Data Analytics

This certificate enables you to develop skills for exploring and analyzing large or complex data sets. The curriculum builds on the basic analytic concepts and techniques required of data science professionals. Students completing this certificate will be well positioned to advise organizations on major decisions that can be informed by massive intertwined data sets.

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required Courses: |  | 3 |
| COMP SCI 451 | Database Systems and Big Data Processing |  |
| INFO SCI 302 | Introduction to Data Science | 3 |
| INFO SCl 410 | Analytics and Information Problems | 3 |
| INFO SCI 412 | Data Mining and Predictive Analytics | 3 |
| Total Credits |  | $\mathbf{1 2}$ |

## Digital Marketing and Sales Management

## Certificate Program

The Digital Marketing and Sales Management Certificate is a 15-credit certificate for professionals working in the marketing functional area who desire to update their skills and knowledge. Our expert faculty use real-world examples, case studies and timely discussions to help marketing professionals become more proficient in digital aspects such as online advertising and managing social media portals while also enabling them to enhance the selling strategy of their organization. The courses in the certificate include sales-focused courses coupled with others that support the digital transformation of the marketing function.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses: |  |  |
| MKTG 327 | Selling and Sales Management | 3 |
| MKTG 345 | Digital Marketing | 3 |
| MKTG 426 | Marketing Strategy | 3 |
| MKTG 428 | Consumer Behavior | 3 |
| MKTG 447 | Social Media Marketing and Analytics | 3 |
| Total Credits |  | 15 |
| Electrical Engineering Principles |  |  |
| Certificate Program |  |  |
| Code | Title | Credits |
| ET 101 | Fundamentals of Engineering Technology | 2 |
| ET 105 | Fundamentals of Drawing | 3 |
| ENGR 120 | Electrical Circuits I | 3 |
| ENGR 121 | Electrical Circuits I Lab | 1 |
| ET 142 | Introduction to Programming | 3 |
| Total Credits |  | 12 |

## Emergency Management

## Certificate Program

Faculty, Public and Environmental Affairs - Marcelo Cruz, David Helpap, Ray Hutchison, Thomas Nesslein, Laurel E. Phoenix, John Stoll, Lora Warner, Aaron Weinschenk, Elizabeth Wheat

Website: www.uwgb.edu/pea/ (http://www.uwgb.edu/pea/)
There is a nationwide effort within the Emergency Management industry today toward requiring bachelor's degrees for professionals working in the field. This translates into more jobs in the future requiring advanced knowledge, critical thinking skills, and academic preparation - in short, a college degree. A degree from the University of Wisconsin-Green Bay with this added certificate will give you the edge you need to compete and succeed.

The risk of hazardous events is increasing dramatically as a consequence of our growing ability to alter our environment.

- Tornados, floods, fires, disease and other natural hazards endanger people and property each year.
- Homeland security is now a major focus for our federal, state and local governments. The events of September 11, 2001 brought home the acute necessity of planning for the social and economic impact of man-made disasters in the form of potential terrorist attacks.
- Technological hazards are on the increase. Complex industrial processes using hazardous materials are becoming more common in the workplace.

Experts project that emergencies causing catastrophic loss of life, property and resources will occur more frequently in the future. Devastation and losses from a disaster can be lessened when businesses, emergency personnel and governments put organized, developed plans in place. Such planning requires skills in budgeting, administration, management and emergency operation procedures.

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | :--- |
| Complete Required Upper Level Courses |  |  |
| PUB ADM 335 | Principles and Practices of Emergency Management | 3 |
| PUB ADM 336 | Strategic Emergency Preparedness, Planning and Implementation | 3 |
| PUB ADM 337 | Disaster Response Operations and Management | 3 |
| PUB ADM 338 | Disaster Recovery | 3 |
| PUB ADM 339 | Political and Policy Dimensions of Emergency Management | 3 |

## Entrepreneurship

## Certificate Program

Faculty - Gaurav Bansal, and Matthew Geimer, Co-chairs of Dept. of Business Administration
A certificate in Entrepreneurship is available to students in all academic programs. It consists of a four-course structure. Entrepreneurship skills keep organizations viable through innovation, and are greatly valued in the workplace. Students learn about problem solving, resourcefulness, and entrepreneurial tools, as well as develop independent, creative and critical thinking skills. The final component of the certificate program is an intensive scalable business startup and pitch experience where students will start a real business. Students may need to declare for an Entrepreneurship Certificate prior to course registration.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses |  |  |
| ENTRP 272 | Introduction to Entrepreneurship |  |
| ENTRP 373 | Entrepreneurial Finance | 3 |
| ENTRP 481 | Small Business Management \& Family Entrepreneurship | 3 |
| ENTRP 491 | Advanced Entrepreneurial Marketing | 3 |
| Total Credits |  | $\mathbf{1 2}$ |

## Foundations of Education

The Accelerated Degree program has been designed with built-in flexibility and personalized advising, specially developed to expedite professional growth, while making it possible to manage a job, family and home. The Accelerated Degree allows for the option of completing an emphasis in Foundations of Education.

Foundations of Education anticipates the demand for teachers and instructors inside and outside the classroom at the elementary, high school, postsecondary and professional levels. An Accelerated Degree with an Education Emphasis will meet the requirements needed for students to apply for a substitute teacher license.

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses: | Culturally Responsive Teaching and Learning |  |
| EDUC 206 |  |  |
| Choose 3 of the Following: | Fundamentals of Public Address |  |
| COMM 133 | Concepts, Issues, and Field Experience in Education |  |
| EDUC 208 | Ethnic Diversity and Human Values |  |
| HUM STUD 213 | Introduction to Lifespan Development |  |

Total Credits

## French Language

## Certificate Program

This certificate will allow a professional credential in the French language by completing three-years of university level French. Students may complete any of the first four semesters via credit for prior learning, but they must complete French 320 and 325 at the college level. At the completion of French 325, they may choose to take the Global Seal of Biliteracy Exam in order ascertain their level according to the Common European Framework of Reference for Languages.

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required: |  | 4 |
| FRENCH 101 | Introduction to the French Language I | 4 |
| FRENCH 102 | Introduction to the French Language II | 3 |
| FRENCH 201 | Intermediate French Language I | 3 |
| FRENCH 202 | Intermediate French Language II | 3 |
| FRENCH 320 | Intermediate Composition and Conversation |  |

## Civic and Community Engagement

## Certificate Program

The Civic and Community Engagement Certificate Program is a campus-wide program open to students in any major that combines Academic Affairs and Student Affairs areas of our campus. Consistent with UWGB's problem-focused, interdisciplinary traditions, traditional course work is available across a broad range of fields, including, but not limited to Public and Environmental Affairs, Psychology, Education, Democracy \& Justice Studies, First Nations Studies, and Women and Gender Studies. The certificate also includes the development of a participant-directed, high impact practices such as an internship, research project or other practicum. It draws on HIPs outside traditional classroom to recognize significant community- and civicsrelated initiatives provided by the Student Engagement Center, Cofrin School of Business, Campus Compact, and Tommy L. Thompson Center for Public Leadership on our campus. The Civic and Community Engagement Certificate is flexible and can be earned by students in any major and does not add any time to degree or tuition costs.

The Civic and Community Engagement Certificate Program consists of courses covering two key categories: engagement and praxis inside and outside traditional classroom. The Certificate is participant-driven, allowing those enrolled to select courses and experiences directed by areas of interest in consultation with a CCE Faculty Advisor. It also treats community engagement holistically and recognizes complex civic lives of our students, who contribute significant time and effort to the life of our campus and community outside traditional coursework.

The certificate is available to current students majoring in any field and members of the community who want to gain "soft skills," and enhance their understanding of the local community, and earn a formal credential.

| Code | Title |
| :--- | :--- |
| Choose $\mathbf{4}$ courses (12 credits) from the list below: |  |
| COMM SCI 200 | Civic Scholars Practicum |
| DJS 200 | Mentoring for Equity and Inclusion |
| EDUC 209 | Phuture Phoenix Service Learning |
| FNS 211 | Mentoring First Nations Youth |
| COMM SCI 493 | Peer Mentor for First Year Seminars |
| COMM SCI 498 | Independent Study |
| COMM SCI 497 | Internship |
| DJS 400 | Mentoring for Equity and Inclusion |
| PSYCH 492 | Applied Research Lab |
| PUB ADM 326 | Philanthropy: Civic Engagement through Giving |
| WOST 350 | Topics in Women's, Gender, and Sexuality Studies |

## Total Credits

In addition to coursework, students must complete at least one of the community engagement experiences listed below.
Students must complete at least twelves credits of coursework (4 courses) and at least one non-credit community engagement experience.
Community Engagement Outside Classroom (non-credit bearing and verified by the Center for Community Engagement or badgr-verified, if available)

Take 1-4 experiences from the list below:
Student Ambassadors or Student Government Association
ELE plus SEC programming, including potential Civics Week and Active Citizen Cohort program (Student Engagement programming)
Civil Dialogues Campus Leader experience
Newman Fellowship experience
Maple Street Project participation
Women Leadership Institute certificate
Mentoring Project at the Cofrin School of Business (soon to be open to all majors)
Phoenix Leadership Program certificate from the Cofrin School of Business (open to all majors)
Non-Campus Community Engagement portfolio (Leadership GB, serving on community org's Board, and similar)
Any internship, independent study, teaching assistantship, research assistantship or honors project dealing with community and civic engagement (any prefix) as well as community or civic engagement courses in the major, subject to CCE approval.

## *Once students declare certificate, CCE staff (couryd@uwgb.edu, heatha@uwgb.edu, and levintoe@uwgb.edu) should be notified for future advising and evaluation of non-credit experiences and non-listed curricular options.

## Geographic Information Systems

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses: |  | 6 |
| GEOG 102 | World Regions and Concepts: A Geographic Analysis |  |
| GEOG 250 | Introduction to Geographic Information Systems (GIS) |  |
| Electives (choose 3): |  | 9 |
| ENV SCI 337 | Environmental GIS |  |
| GEOG 350 | GIS in Public and Environmental Policy |  |
| GEOG 351 | Elements of Cartography |  |
| GEOG 341 | Urban Geography |  |

Total Credits

## German Engineering

## Certificate Program

In a global economy, graduates often work with international companies. In the Green Bay/NEW region, there are several companies; such as EMT International and its German partner company, Rotocontrol International; Fabio-Perini and its German parent company, the Korber group; and Millipore Sigma and its parent company, Merck HGaA. UW-Green Bay has an educational partnership with universities in the Hessian region that allows for study abroad experiences in both directions. This certificate will provide Engineering and German students interested in opportunities with German companies the skills to integrate German and Engineering. UW-Green Bay's German and Engineering programs are collaborating on a project to increase study abroad opportunities for both German and U.S. students and this certificate will strengthen this initiative.

| Code | Title |
| :--- | :--- |
| Supporting Courses |  |
| ENGR 104 | Engineering Graphics |
| ET 207 | Parametric Modeling |
| ENGR 216 | Basic Manufacturing Processes |
| ENGR 236 | Technical Writing |
| GERMAN 201 | Intermediate German Language I |
| GERMAN 202 | Intermediate German Language II |
| Upper-Level Requirements |  |
| GERMAN 320 | Intermediate German Conversation and Composition |
| Elective: (Complete one) | Co-op/Internship in Engineering Technology |
| ET 400 | Deutsche Kultur und Landeskunde |
| GERMAN 355 | Internship |
| GERMAN 497 | Travel Course |
| GERMAN 499 | German Culture |
| HUM STUD 356 |  |

Total Credits

## Health Information Management

## Post-Baccalaureate Health Information Management \& Technology (HIMT) Certificate Program

The Post-Baccalaureate HIMT certificate program is a fully online, asynchronous certificate program comprised of existing BS-HIMT courses that are part of the collaborative online BS-HIMT program. The HIMT curriculum complies with the Commission on Accreditation for Health Information and Informatics Management (CAHIIM) Education standards. Upon successful completion of the certificate requirements, students (with an existing
bachelor's degree) are eligible to sit for professional credentials offered thru The American Health Information Management Association (AHIMA). Credentials earned thru AHIMA are the gold-standard for Health Information Management professionals.

The Post-Baccalaureate HIMT certificate program will serve as an option for both BS-HIMT degree-seeking students with a prior bachelor's degree, as well as a freestanding certificate program for non-degree (i.e. certificate-only) students with an earned bachelor's degree. HIMT Certificate students may elect to pursue the full BS-HIMT degree following completion of the certificate. To assure academic rigor, "Post-Baccalaureate HIMT certificate programs must be in compliance with the 2018 Accreditation Standards for Baccalaureate Degree Programs and therefore must assure the achievement of all competencies as required by the 2018 HIM Curricula Competencies for Baccalaureate Degree programs. A coherent and complete program offers a pathway to the HIM profession for prospective students that hold a previously earned baccalaureate degree or higher from an academic institution." (CAHIIM, 2021)

Following the collaborative model, students select and enroll at a home campus (i.e., UW-Green Bay) from which they will receive full academic supports and the certificate is conferred. Academic advising is provided by the designated BS-HIMT advisor at each institution.

## Program Requirements and Curriculum:

Admission requirements for the Post-Baccalaureate HIMT certificate program include an earned Bachelor's degree. Program prerequisites include coursework in College Algebra, College-level Statistics, Communications, Biology, and Medical Terminology.

Below outlines the 24-credit curriculum for the certificate. Students must successfully complete all eight courses to earn the certificate.

| Code | Title |
| :--- | :--- | ---: |
| Required Courses: |  |
| HIMT 301 | Digital Literacy in Healthcare |
| HIMT 340 | Ethical issues, Security Management and Compliance |
| HIMT 380 | Healthcare Billing, Coding and Reimbursement |
| HIMT 400 | Healthcare Information and Technology - Data |
| HIMT 415 | Human Resource Management in Healthcare |
| HIMT 420 | Healthcare Systems: Project Management |
| HIMT 430 | Quality Assessment and Improvement |
| HIMT 440 | Group Processes, Team Building and Leadership |

Total Credits

## Program Learning Outcomes:

As defined above, the certificate program will consist exclusively of existing HIMT courses.

# Lesbian, Gay, Bisexual, Transgender, and Queer Studies Certificate Program 

The Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Studies Certificate Program, housed administratively in the Women's, Gender, and Sexuality Studies Program (WGSS), is a campus-wide program open to students in any major. Consistent with UWGB's problem-focused, interdisciplinary traditions, course work is available across a broad range of fields, including, but not limited to WGSS, Democracy and Justice Studies, Human Development, History, English, and Humanities. The certificate also includes additional training in diversity and the development of a participantdirected, high-impact practice such as an internship, research project, or other practicum.

The LGBTQ Studies Certificate Program provides participants with a background in the history and lived experiences of Gender, Sexuality, and Romantic Minorities (GSRMs). The Certificate is participant-driven, allowing those enrolled to select courses and experiences directed by areas of interest (e.g., persons interested in the helping professions may seek a relevant internship in Human Development, Social Work, or Psychology; literary fans could study GSRMs through English electives and stage a reading of Oscar Wilde; the possibilities are endless). As such, the Certificate allows participants to work with an Advisor to cater the Certificate to their interests. For some, this could involve completing coursework across a number of different program areas; others will find that clustering coursework within a narrow field is most appropriate.

The certificate is available to current students majoring in any field and members of the community who wish to think informatively and critically about the lives and contributions of LGBTQ people, to respect the dignity of LGBTQ people, and to understand and interact with a culture that contributes to the diversity of our world. A defining feature of this Certificate is completion of a participant-directed, high-impact practice, some examples include activities such as a(n):

- independent study: Queer Theory symposium; contribute to building the LGBTQ archive at the Cofrin Library
- honors project: stage a public reading of a play by Oscar Wilde
- internship: volunteer at a local organization working with at-risk LGBTQ youth; develop and promote LGBTQ-themed programs for the Student Union
- research assistantship: assisting a faculty member on relationship study with same-sex couples; oral history of LGBTQ elders

Participants completing an LGBTQ Studies Certificate should demonstrate knowledge of the following concepts and issues:

1. The socio-cultural and historical construction of gender and sexual identities.
2. Intersectionality of gender and sexuality with race/ethnicity, religion, class, and nationality.
3. How to effectively challenge bigotry, inequality, and systems of oppression, including those based on gender and sexuality.
4. Major issues pertaining to the lives of LGBTQ people, historically and in contemporary societies (e.g. representations of LGBTQ individuals; the impact of queer culture on the dominant culture; violence; relationships between LGBTQ individuals/communities and institutions such as the medical and mental health professions, the law, religion, the media, education, and the military; family; and the LGBTQ Community and work.

Students must complete Ally Training I and II prior to declaring the certificate.

| Code | Title |
| :--- | :--- |
| Required Courses <br> WOST 201 | Introduction to LGBTQ Studies |
| Choose 3 credits from the following options: ${ }^{1}$ |  |
| WOST 350 | Topics in Women's, Gender, and Sexuality Studies (Topics: LGBTQ+ ARCHIVE WORKSHOP and <br> QUEERING MULTICULT NARRATIVES only) |
| WOST 495 Teaching Assistantship <br> WOST 497 Internship <br> WOST 498 Independent Study <br> Elective Options ${ }^{2}$  <br> Choose 9 credits from the following options:  <br> DJS 363 Topics in Democracy and Justice (Topic: GLOBAL POLITICS OF POLICING only) <br> HISTORY 370 History of Sexuality in the U.S. <br> SOCIOL 375 Sociology of Sexual and Intimate Relations <br> WOST 241 Introduction to Women's, Gender, and Sexuality Studies |  |

Total Credits

1 Students may work with their certificate advisor to substitute other relevant student-directed high impact practices such as independent studies, research assistantships, etc.
2 Students may work with their certificate advisor to substitute other courses relevant to their content area and area of interest.

## Management in Health Systems

## Certificate Program

Description of the Certificate: This 15 credit certificate is for professionals working, or desiring to work, in the healthcare field. This is designed to serve professionals without any post-secondary education and/or experience in healthcare management. It will provide an overview of the various aspects of healthcare management including: operational management skills and knowledge, budgeting and finance, healthcare economics and population management. As the needs of professional healthcare managers and administrators continue to increase, a Management in Health Systems Certificate will provide the skills to meet the changing needs of today's healthcare industry.

Format: The Management in Health Systems certificate is offered in an online format, which allows students to balance their work and/or family obligations while advancing their education and career.

Course Credits: Five 3-credit, undergraduate courses are required for the Management in Health Systems certificate. These five courses are also included in UW-Green Bay's Organizational Leadership major with the Management in Health Systems area of emphasis. Courses completed toward the certificate will apply toward the Organizational Leadership major with the Management in Health Systems emphasis for degree-seeking students who choose this major.

Upon successful completion of the Management in Health Systems Certificate, students will receive a digital badge as a form of credentialing.
Rationale for the Certificate: Healthcare is the nation's fastest growing field and is projected to consistently grow statewide and nationally over the next 10 years. The Bureau of Labor Statistics forecasts $1.9 \%$ annual growth in the healthcare sector through 2024, more than twice the projected rate for almost every other industry. As hospitals and healthcare organizations continue to grow, there is an increased demand for managers to possess the necessary skills to take on leadership responsibilities that include business, technology and healthcare concepts. Creating an online healthcare management emphasis/certificate will help meet the workforce shortage and challenge of matching available talent with staffing needs, particularly in the
leadership and management areas. The online format provides flexibility which will allow students to balance their work and/or family obligations while advancing their education and career.

## Pre-requisite:

- High School Diploma or equivalent


## Expectations:

- All candidates must have high school level analytical ability
- Proficient in reading, writing and math
- Proficient in computer skills and technology
- Experience with Microsoft Word, ability to write reports
- Take online exams using a laptop/PC

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required Courses: |  | 3 |
| HLTH MGT 301 | Health Care Systems |  |
| HLTH MGT 302 | Healthcare Management | 3 |
| HLTH MGT 401 | Healthcare Economics \& Policy | 3 |
| HLTH MGT 402 | Population Healthcare Management | 3 |
| ORG LEAD 347 | Budgeting and Financial Management | 3 |
| Total Credits |  | $\mathbf{1 5}$ |

## Marketing Analytics

UW-Green Bay marketing analytics certificate program is designed to provide individuals with the skills and knowledge necessary to analyze marketing data and make informed decisions. The program covers topics such as data science techniques, statistical methods, marketing research, social media and digital marketing analytics.

Upon completion of the program, graduates will be able to apply their skills to a variety of industries, including social media analytics, data driven advising, market research, and digital marketing.

UW-Green Bay's marketing analytics certificate is a valuable investment for learners seeking to advance their careers in marketing or data analysis. It provides them with the skills and knowledges necessary to make data-driven decisions and stay competitive in today's rapidly evolving business landscape.

## Certificate Program

| Code | Title |
| :--- | :--- | ---: |
| Required courses: |  |
| BUSAN 370 | Data Science for Managers |
| MKTG 322 | Principles of Marketing |
| MKTG 345 | Digital Marketing |
| MKTG 424 | Research Methods |
| MKTG 447 | Social Media Marketing and Analytics |

## Total Credits

## Mechanical Engineering Principles

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required courses: |  | 1 |
| ENGR 104 | Engineering Graphics |  |
| ENGR 201 | Engineering Materials | 2 |
| ENGR 204 | Programming for Engineers | 2 |
| ENGR 216 | Basic Manufacturing Processes | 3 |
| ET 101 | Fundamentals of Engineering Technology | 2 |

## Multicultural U.S. History

## Certificate Program

The Multicultural U.S. History Certificate enables students to think informatively and critically about the multiple perspectives and diverse cultures that have comprised the indigenous, colonial, and modern land we now call the United States. The certificate is open to students in any major or minor who wish to learn more about the historical significance of race, ethnicity, class, gender, sexuality and other forms of diversity in shaping the American experience. Students who complete the certificate will have a greater awareness of the rich complexity and multicultural heritage of the United States.

Students who complete the Multicultural U.S. History Certificate will demonstrate the following program learning outcomes:

- Students will demonstrate an understanding of the significance of racial, ethnic, gender, and other forms of diversity in shaping human experiences and history.
- Students will demonstrate their own understanding of the significance of studying history and of the role of historical perspectives in engaged citizenship.
- Students will show an understanding of how power, hierarchies, and social arrangements shape society.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Supporting courses (choose one): |  | 3 |
| DJS 221 | Law and Equality in Historical Perspective |  |
| FNS 225 | Introduction to First Nations Studies |  |
| HISTORY 207 | Introduction to African-American History |  |
| Required courses (choose three): |  | 9 |
| FNS 360 | Women and Gender in First Nations Communities |  |
| FNS 374 | Wisconsin First Nations History |  |
| HISTORY 309 | United States Immigration History |  |
| HISTORY 340 | Topics in African American History |  |
| HISTORY 365 | U.S. Labor and the Working Class: Past and Present |  |
| HISTORY 370 | History of Sexuality in the U.S. |  |
| HISTORY 380 | U.S. Women's History |  |
| HISTORY 425 | Topics in U.S. History (Topic: Asian American History) |  |
| HUM STUD 353 | Latinx Culture |  |

## Total Credits

## Nonprofit Management

## Certificate Program

Faculty, Public and Environmental Affairs - Marcelo Cruz, David Helpap, Ray Hutchison, Kerry Kuenzi, Thomas Nesslein, Laurel Phoenix, John Stoll, Lora Warner, Aaron Weinschenk, Elizabeth Wheat

## Lecturer - Pat Hicks

The faculty of the Public and Environmental Affairs department, along with its Center for Public Affairs, offers a broad-based certificate to demonstrate that students have achieved an understanding of the management principles for nonprofit organizations. Regardless of one's chosen major or degree, many graduates will find themselves working in or directing nonprofit enterprises. Understanding principles of nonprofit management and developing tools for such management is critical to future success.

A certificate in Nonprofit Management is available to students in any academic program. It consists of supporting courses that complement academic plans of students in the Organizational Leadership degree program who have chosen to pursue a Public/Nonprofit emphasis. This certificate program is also attractive to students who have chosen other majors, such as Arts Management, Psychology, Political Science, Democracy \& Justice Studies, Public Administration, Social Work or others but desire to earn a free-standing certificate in nonprofit management. In addition to coursework, a critical element of the certificate program is the internship experience. The department has a wide array of strong internship partnerships with community agencies.

## Requirements for the Certificate

| Code | Title | Credits |
| :---: | :---: | :---: |
| Recommended supporting courses |  |  |
| PUB ADM 215 | Introduction to Public Administration |  |
| PUB ADM 225 | Introduction to the Nonprofit Sector |  |
| Required Courses |  | 18 |
| PUB ADM 315 | Public and Non-Profit Management |  |
| PUB ADM 415 | Public and Nonprofit Budgeting |  |
| PUB ADM 425 | Fundraising and Marketing for Nonprofits |  |
| PUB ADM 428 | Public and Nonprofit Program Evaluation |  |
| PUB ADM 497 | Internship |  |
| Complete one of the following |  |  |
| PUB ADM 344 | Leadership in Organizations |  |
| PUB ADM 345 | Human Resource and Risk Management |  |
| Total Credits |  | 18 |
| Organizational Development |  |  |
| Certificate Program |  |  |
| Code | Title | Credits |
| Required Courses: |  |  |
| COMM 166 | Fundamentals of Interpersonal Communication | 3 |
| ORG LEAD 347 | Budgeting and Financial Management | 3 |
| ORG LEAD 348 | Organizational Behavior Across Sectors | 3 |
| PUB ADM 345 | Human Resource and Risk Management | 3 |

## Total Credits

12
## Physical Education

## Including Coaching Certification

Faculty - Tim Kaufman, Chair

The physical education unit does not offer a major or minor. However, physical education credits are included in a student's grade point average and may be applied toward a degree where approved by a program or as elective credits.

Enrollment in physical education activity presumes a student's health status is appropriate for the course selected. A physical examination and the filing of a health history form with the office of Student Health Services are recommended.

## Coaching Certification

The coaching certification program consists of a minimum of 18 credits to prepare students for coaching responsibilities and is approved by the Wisconsin Department of Public Instruction for athletic coaching preparation for the public schools of Wisconsin. Youth-sport coaches are encouraged to acquire similar training.

Students desiring certification may normally complete requirements within two academic years, but it is wise to begin coaching certification coursework early. Completion of the coaching certification program is noted on your transcript.

Some coaching certification courses are appropriate for interdisciplinary study and many students select individual courses without completing the entire program. Persons already teaching and/or coaching may take courses to expand their personal and professional background.

Since many of the following courses are dual listed at the undergraduate and graduate levels, some students may opt to use select courses to satisfy degree requirements in various graduate programs. Students should consult with their graduate program advisor for approval.

UW-Green Bay's coaching certification program is consistent with the recommendations of the National Council of State High School Coaches, the National Association for Girls and Women in Sport, and the American Alliance of Health, Physical Education, Recreation and Dance.

| Code | Title | Credits |
| :---: | :---: | :---: |
| First Aid/CPR Requirement |  | 0-3 |
| HUM BIOL 116 | First Aid and Emergency Care Procedures |  |
| Or faculty approved external certification |  |  |
| Required Courses |  | 18 |
| HUM BIOL 102 | Introduction to Human Biology |  |
| or BIOLOGY 201 | Principles of Biology: Cellular and Molecular Processes |  |
| HUM BIOL 210 | Prevention and Treatment of Athletic Injuries |  |
| EDUC 416/616 | Principles of Coaching |  |
| EDUC 417/617 | Philosophy of Athletics and Coaching |  |
| EDUC 418/618 | Organization and Administration of Athletics |  |
| EDUC 419/619 | Field Experience in Coaching |  |

Total Credits

## Professional Ethics

## Certificate Program

Certificate in Professional Ethics is available to students in any academic program. It is designed for a broad range of professions, including business, engineering, politics, law, medicine, nursing, social work, counseling, and teaching. Topics covered include ethical theory, professional codes of conduct, moral reflection, and ethical argumentation and debate. The emphasis and ultimate goal of the program is the development of a deeper understanding of oneself as a responsible professional.

Requirements: To attain the certificate, students will need to complete four courses (12 credits), with:

- at least one course from Category A,
- at least two courses from Category B,
- and a fourth course from any category (including Category C)

Courses within Category A involve profession-specific coursework and provide students the opportunity to consider applied ethical issues in the fields of business, medicine, engineering, and environmental policy. The courses within this category introduce students to a variety of concrete problems and case studies, ranging from euthanasia, physician-assisted suicide, and organ transplantation (for those pursuing medical degrees) to corporate social responsibility, environmental sustainability, and the ethical permissibility of whistleblowing (for those pursuing degrees in business, engineering, or environmental policy), to name just a few.

Such issues, however, gesture at deeper and more profound questions, and the courses in Category B provide students with the opportunity to consider these more abstract problems, answers to which are necessary for any informed and rigorous approach to applied ethics. What, for instance, are the ethical merits or demerits of capitalism? Which of the main normative ethical theories should one utilize when approaching applied issues? What is the nature of happiness and the good life? The courses in Category B offer students the opportunity to reach informed and reasoned convictions about such questions.

Finally, the courses in Category C permit students the flexibility to pursue topics unique to their chosen career path or field of interest. Students are not required to choose from Category $C$ to attain the certificate; they may choose from among Categories $A$ and $B$ to satisfy this fourth-course requirement.

Learning Outcomes: By completing a professional ethics certificate, students will be able to

- enhance their careers by attaining a greater knowledge of ethics,
- develop an ability to recognize and address ethical questions,
- learn to make ethical decisions on the basis of sound reasoning and informed thinking, and
- become familiar with various ethical case studies as it pertains to the professions.

Students must attain at least a B in all courses and can pursue these courses in any order.

| Code | Title |
| :--- | :--- | ---: |
| Category A (choose one course): |  |
| PHILOS 208 Biomedical Ethics <br> PHILOS 220 Environmental Ethics <br> PHILOS 227 Business Ethics <br> Category B (choose two courses):  <br> PHILOS 101 Introduction to Philosophy |  |


| PHILOS 102 | Contemporary Ethical Issues |  |
| :---: | :---: | :---: |
| PHILOS 103 | Logic and Reasoning |  |
| PHILOS 105 | Is Morality for Sale? |  |
| PHILOS 208 | Biomedical Ethics |  |
| PHILOS 212 | Philosophy, Religion, and Science |  |
| PHILOS 104 | Freedom and Individuality |  |
| PHILOS 216 | Introduction to Asian Philosophy |  |
| PHILOS 220 | Environmental Ethics |  |
| PHILOS 227 | Business Ethics |  |
| PHILOS 301 | Ethical Theory |  |
| PHILOS 324 | Contemporary Philosophy |  |
| PHILOS 326 | Philosophy, Politics and Law |  |
| PHILOS 351 | Happiness and the Good Life |  |
| Category C (choose one course): ${ }^{1}$ |  | 3 |
| BUS ADM 201 | Principles of Sustainability in Business |  |
| BUS ADM 202 | Introduction to Business |  |
| EDUC 417 | Philosophy of Athletics and Coaching |  |
| ENV SCI 303 | Environmental Sustainability |  |
| ENV SCI 425 | Global Climate Change |  |
| EPP 379 | Natural Resources Policy, Law, and Administration |  |
| FNS 225 | Introduction to First Nations Studies |  |
| FNS 392 | First Nations Justice and Tribal Governments |  |
| HIMT 340 | Ethical issues, Security Management and Compliance |  |
| HISTORY 326 | Global Environmental History |  |
| HUM BIOL 405 | Biotechnology and Ethics |  |
| HUM STUD 213 | Ethnic Diversity and Human Values |  |
| HUM STUD 370 | Sustainability through the Humanities |  |
| MIL SCI 201 | Basic Leadership and Management I |  |
| PSYCH 380 | Conservation Psychology |  |
| PUB ADM 315 | Public and Non-Profit Management |  |
| SOC WORK 305 | The Social Work Profession |  |
| SPANISH 357 | Cultura Latina |  |

## Total Credits

1 Students may instead opt to choose a course not already used from Category A or B to satisfy the overall 12 credit requirement.

## Rising Leadership

## Certificate Program

To complement the Org Lead core classes, the Rising Leadership Certificate offers options for all students (not just women) to expand their understanding of issues of gender in organizations and to equip individuals with leadership aspirations with the ability to develop an inclusive workplace with special focus on gender equity.

Prior to the pandemic, the representation of women in leadership positions was growing at a slow but steady pace. While women represent half of the labor force and have eclipsed men in earning college degrees, women still hold only $25 \%$ of corporate leadership roles (McKinsey \& Company, 2020). Moreover, research is beginning to show the disproportionate impact the COVID-19 pandemic has had on working women. Businesses and organizations of all types face the challenge of retaining and supporting our female team members at all levels, ages and life situations--especially African American women. No one is experiencing business as usual, but women, especially mothers, senior-level women and Black women - have faced distinct challenges as indicated in McKinsey \& Company's 2020 report.

To address these challenges, both ongoing and recent, organizations need to develop women as leaders by providing support and education for women at all career stages. Organizational leaders need to understand the barriers and challenges facing women and how to utilize leadership strategies to create policies and cultures that promote success of employees. Employers are looking for credentialed programs to educate and support women at many levels and in many contexts so that they can advance into top leadership positions.

The purpose of the Rising Leadership Certificate is to prepare early-career/emerging leaders with key knowledge, perspectives and skills relating to gender and equity to promote career development in the workplace. With a focus on women and gender inclusivity, it will address societal, organizational, and personal issues that enable an individual to thrive as a leader and professional. It will be offered for credit-seeking undergraduate students as well as for community members as a non-credit option.
This Certificate will augment the existing Organizational Leadership Emphasis options for students. Currently, the flexible major requires core courses in leadership (Leadership in Organizations, HR, Org Research, Org Behavior, Budgeting) coupled with choice of Emphasis composed of 4-5 courses (9 choices, currently, including Public/NP Mgt, Healthcare Mgt, Business, Communications, and more).

The Certificate has been developed by the Organizational Leadership program in collaboration with the Institute for Women's Leadership (IWL) at UWGreen Bay, a new university-wide initiative that will offer an array of opportunities designed to develop the leadership potential of professional women in Wisconsin (and beyond). The Rising Leadership Certificate aims to serve mostly undergraduate students pursuing a degree. Many students pursuing the Organizational Leadership major can select the emphasis entitled Rising Leadership which also earns them the Certificate. Students with any other major declared can also pursue this Certificate. At the same time, community members can enroll in the five courses to obtain a stand-alone, non-credit Certificate in Rising Leadership.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Supporting Courses |  | 9 |
| SOCIOL 238 | Sociological Perspectives on Gender | Gender in Popular Culture |
| WOST 203 | Introduction to Women's, Gender, and Sexuality Studies | 6 |
| WOST 241 |  | 6 |
| Required Upper Level Courses | Rising Leadership |  |
| ORG LEAD 301 | Gender \& Equity in Organizational Leadership |  |
| ORG LEAD 302 |  |  |

Total Credits

## Spanish/English Translation and Interpretation

This undergraduate Certificate in Spanish/English Translation and Interpretation provides UW-Green Bay students with a broad exposure to the theory and practice of the growing field of translation studies. Students can complement any major or minor with this Certificate. The Certificate does not substitute for or counts as a major or minor. However, Spanish courses completed towards the Certificate can also count towards a major or minor in Spanish.
To be eligible for the Certificate, students must be candidates for a B.A. or a B.S. degree at UW-Green Bay or have already completed such a degree at UW-Green Bay or elsewhere. Students must be declared Spanish majors and possess advanced linguistic proficiency in both English and Spanish.

## Certificate Program

| Code | Title |
| :--- | :--- |
| Required Courses: |  |
| SPANISH 345 | Advanced Spanish Grammar ${ }^{1}$ |
| SPANISH 372 | Spanish Phonetics $^{1}$ |
| SPANISH 383 | Spanish in the Professions ${ }^{1}$ |
| SPANISH 454 | Translation and Interpretation $^{2}$ |
| SPANISH 465 | Special Topics (Translation and Interpretation) ${ }^{1}$ |

Total Credits

1 Course must be completed with a final grade of $B$ or better for use in completing this certificate
2 Practicum must be passed with a final grade of A for use in completing this certificate

## Supply Chain Management

## Certificate Program

Certificate in Supply Chain Management (SCM) is a 15 credit certificate for professionals working or desiring to work in the supply chain management function. This is designed to serve professionals with or without formal education and/or experience in SCM. It will provide an overview of the various aspects of SCM, improve the understanding of various principles and its applications in global supply chain management. This certificate will also provide exposure to logistics, transportation, packaging, operations planning, inventory management, lean and six-sigma and enterprise resource planning (ERP) among others.

| Code | Title | Credits |
| :--- | :--- | ---: |
| SCM 384 | Supply Chain Management | 3 |
| SCM 380 | Project Management | 3 |
| SCM 381 | Operations Management | 3 |
| SCM 383 | Enterprise Resource Planning | 3 |
| SCM 434 | Logistics Management | 3 |
| Total Credits |  | $\mathbf{1 5}$ |

## Sustainability

## Certificate Program

Faculty, Business - Vallari Chandna, Amulya Gurtu, David Radosevich, John Stoll
Faculty, Environmental Science - Michael Holly, Patricia Terry, Michael Zorn
Faculty, Nursing - Christine Vandenhouten
Faculty, Public and Environmental Affairs - David Helpap, Elizabeth Wheat
The Environmental Management and Business Institute (EMBI) in conjunction with faculty from Business Administration, Natural and Applied Sciences, and Public and Environmental Affairs offers a broad-based certificate which documents that students have achieved an understanding of the importance of sustainable practices in business activities and community affairs, regardless of what area of emphasis a student's degree program may be centered upon. Understanding that our global future rests upon creating a citizenry that is aware of the need for economic, environmental, and social responsibility is critical for our world economy.

A certificate in Sustainability is available to students in all academic programs. It consists of a supporting course structure that is complementary to the existing general education requirements and consistent with current credit-load requirements, and thereby will not delay a student's graduation. The main component of the certificate program is an intensive business internship or co-op experience.

## Requirements for the Certificate



## Teaching English as a Second Language

## Certificate Program

The certificate of completion in Teaching English as a Second Language (TESL) is offered under the auspices of the Humanities program as an 18credit program of study. It is designed for students who want to teach in situations that do not require Wisconsin public school teacher licensure, such as teaching English overseas or in adult literacy programs or tutorial programs sponsored by community service organizations or private companies. It can be a useful complement to training in other areas such as community and regional development, science and technology, or international business - wherever English is an important access language or a medium for training or cross-cultural communication.

This certificate is not equivalent to a professional licensure program for teaching in public elementary or secondary schools in Wisconsin. It can, however, be a first step toward obtaining that qualification. UW-Green Bay does offer professional licensure in English as a Second Language that is approved by the Wisconsin Department of Public Instruction. A full description of the ESL teacher licensure program and requirements at UW-Green Bay is available from the professional program in Education.

To be eligible for the TESL certificate of completion program, students must either be candidates for a B.A. or B.S. degree or have already completed such a degree.

## Requirements for the Certificate

| Code | Title |
| :--- | :--- |
| Required Courses |  |
| EDUC 315 | Teaching English as a Second Language |
| HUM STUD 160 | Introduction to Language |
| HUM STUD 319 | Second Language Acquisition \& Assessment |
| HUM STUD 321 | Sociolinguistics |
| HUM STUD 497 | Internship |
| Choose one elective from the following: |  |
| COMM 322 | Modern Linguistics |
| ENGLISH 340 | History of the English Language |
| HUM STUD 318 | Topics in Linguistics/TESL |
| HUM STUD 320 | Language and Identity |

## Workforce Solutions

## Certificate Program

| Code | Title | Credits |
| :--- | :--- | :--- |
| Required Courses: |  | 3 |
| COMM 166 | Fundamentals of Interpersonal Communication | 3 |
| FIN 282 | Personal Financial Planning | 3 |
| HUM STUD 213 | Ethnic Diversity and Human Values | 3 |
| ORG LEAD 348 | Organizational Behavior Across Sectors |  |
| Total Credits |  | $\mathbf{1 2}$ |

## Preprofessional Programs

## 'Programs' Rather Than 'Majors'

UW-Green Bay provides excellent preparation for professional study in a variety of specialized fields.
This being the case, it is worth noting there are no separate listings in the majors-and-minors section of this catalog for pre-professional programs.
That is because UW-Green Bay avoids the designations pre-law, pre-med or "pre-anything" for specific undergraduate majors and minors. Instead, the institution encourages students to tailor their own preprofessional courses of study with the aid of knowledgeable academic advisers.

This puts the University in the higher education mainstream which holds that the best approach to preprofessional study involves flexibility.

For instance, while it is common to hear college students identify themselves as "pre-law," it typically means only that they plan to apply to a law school. Few universities anywhere offer an actual undergraduate major titled "pre-law." At those that do, the prescribed course of study represents only an opinion as to the most favored path; those most knowledgeable of law school admission practices maintain there is no such advantage.

Preparation for medical school admission is another example. A rigid menu of recommended courses might actually interfere with a student's ability to discover a special interest, excel and achieve academic distinction that otherwise would have enhanced their application for admission. In addition, most medical schools accept candidates from a relatively wide range of undergraduate majors. Preferred academic preparation will vary from school to school, and admissions board to admissions board.

In select fields of study, students may — through careful planning with the help of a knowledgeable adviser — develop a one-, two- or three-year course of study in preparation for transfer into a professional program. In many fields, however, the typical path involves choice of an appropriate undergraduate major and supporting courses, completion of a bachelor's degree, and pursuit of graduate-level studies.

It is important to remember that completion of any undergraduate program does not guarantee later admission to a professional school.
Admission to professional schools is competitive and is based upon a combination of requirements that includes grade point average, program-specific admission tests, letters of recommendation and, in many cases, related experience outside the classroom. It is a student's responsibility to contact the professional school for current information regarding requirements and application deadlines.

## D

- Dietetics (p. 397)

E

- Engineering (p. 398)

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- Health Sciences (p. 398)

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- Law (p. 399)

M

- Military Science (p. 400)

P

- Pharmacy (p. 402)

V

- Veterinary Medicine (p. 402)


## Dietetics

UW-Green Bay offers attractive options for those interested in becoming dietetic professionals and practicing the science of nutritional services with a focus on health promotion and disease prevention.

Through its Human Biology academic program, the University offers an accredited didactic program in nutrition and dietetics as well as a dietetic internship.

To become a registered dietitian, a student must complete a minimum of a bachelor's degree including coursework accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The accredited coursework in dietetics is what is known as the didactic program. After a student completes the didactic program, he or she needs to complete an ACEND-accredited supervised practice experience or, in other words, a dietetic internship. A supervised practice program is typically between six to twelve months in length. Completion of the practice program makes a student eligible to take the National Registration Examination for Dietitians administered by the Commission on Dietetic Registration.

Students who wish to participate in a dietetic internship program must apply to that program upon completion of the didactic program. Students who graduate from the didactic program at UW-Green Bay are eligible to apply to the dietetic internship program at UW-Green Bay or accredited, supervised practice programs offered elsewhere. It is the student's responsibility to contact each dietetic internship program for current requirements and application procedures. Most internship applications are due in February each year.

Course requirements for the didactic program in nutrition and dietetics at UW-Green Bay are located in this catalog under the Human Biology major (p. 221).

## Engineering

UW-Green Bay provides degrees in mechanical engineering, electrical engineering, three engineering technology majors, and solid preparation and numerous opportunities for those interested in beginning work toward other engineering degrees.. A student at UW-Green Bay can also pursue preprofessional studies with the intent of transferring into engineering programs at other institutions, with several listed below.

Required engineering courses will vary, depending on the engineering program from which a student expects to earn the degree. Generally, a student spends a minimum of two years in engineering studies at UW-Green Bay before transferring to the professional engineering school. Required coursework is typically drawn from mathematics, physics, chemistry, engineering materials, engineering mechanics and other related courses, as well as liberal arts coursework in the humanities, fine arts and social sciences.

Students should expect rigorous requirements and competitive entry for engineering programs. Students should also seek early advice from the various engineering programs and UW-Green Bay's Academic Advising Office.

UW System institutions grant engineering degrees offer courses leading to the degrees both at their home campuses and several satellite sites. The universities are:

- UW-Madison - degrees in agricultural, biomedical, biological systems, chemical, civil, computer, electrical, geological, industrial, materials science, mechanical and nuclear engineering, and engineering mechanics.
- UW-Milwaukee - degrees in civil/environmental engineering and mechanics, electrical, industrial and manufacturing, materials and mechanical engineering.
- UW-Platteville - degrees in civil, electrical, environmental, mechanical, industrial, software engineering, general engineering and engineering physics.
- UW-Stevens Point - degree in paper science and chemical engineering
- UW-Stout - degrees in computer, mechanical, manufacturing, and plastics engineering

Advisers from engineering schools annually visit UW-Green Bay to answer questions and advise prospective students.

## Suggested courses for students planning to complete engineering degrees at another institution:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Suggested Courses |  |  |
| ET 206 | Chemistry for Engineers | 4 |
| ENGR 201 | Engineering Materials | 2 |
| ENGR 213 | Mechanics I | 3 |
| ENGR 214 | Mechanics II | 3 |
| ENGR 220 | Mechanics of Materials | 3 |
| ENGR 308 | Electrical and Electronic Circuits | 3 |
| MATH 202 | Calculus and Analytic Geometry I | 4 |
| MATH 203 | Calculus and Analytic Geometry II | 4 |
| MATH 209 | Multivariate Calculus | 4 |
| PHYSICS 201 <br> \& PHYSICS 203 | Principles of Physics I and Introductory Physics Lab I | 5 |
| PHYSICS 202 <br> \& PHYSICS 204 | Principles of Physics II and Introductory Physics Lab II | 5 |
| WF 100 | First Year Writing | 3 |
| Total Credits |  | 43 |

## Health Sciences

## Dentistry, Medicine, Optometry, Physical Therapy, Physician Assistant, Chiropractic

With a reputation for strength in the natural sciences dating to the institution's founding, along with experienced faculty members and exceptional classroom and laboratory facilities, UW-Green Bay places a good number of students and alumni into professional schools in the health sciences each year.

Students seeking admission to these schools typically complete a bachelor's degree at UW-Green Bay with a major in Human Biology (health science emphasis) or a major in Biology or Chemistry with a minor in Human Biology. Other combinations are possible, however, as most professional schools in health sciences will consider a range of undergraduate majors.

Competition for admission to schools of medicine and other health fields is often intense; typically, the number of applicants exceeds the number of positions for professional school openings. Given these circumstances, students should plan undergraduate programs that provide maximum flexibility for pursuing post-baccalaureate opportunities.

Those pursuing a career in medicine will typically follow their UW-Green Bay bachelor's degree with four years of medical school and at least three but as many as eight additional years of internship and residency, depending on the specialty. Students are highly encouraged to volunteer at local hospitals or clinics to gain practical experience in the health professions.

Most dental-school applicants have at least a bachelor's degree, although a few are accepted to dental school after two or three years of college and complete their bachelor's while attending dental school. Dental school usually lasts four academic years.

The doctor of optometry degree requires the completion of a four-year program at an accredited optometry school. As with dental school, most students hold a bachelor's degree or higher, but a small number of applicants will be admitted following at least three years of focused pre-optometric study.

Education programs for physician assistants are two-year programs at the master's degree level. Admission requirements vary, but many programs require some volunteer hours or work experience in the healthcare field.

According to the American Physical Therapy Association, there are about 200 accredited physical therapist programs in the United States, split between programs offering master's degrees and those awarding doctoral degrees. Specialized courses in biomechanics, neuroanatomy, human growth and development, and therapeutic procedures are required, and students receive supervised clinical experience.

Most state boards overseeing chiropractic require at least two years of undergraduate education; an increasing number are requiring a four-year bachelor's degree. All boards require the completion of a four-year program at an accredited chiropractic college leading to the doctor of chiropractic degree.

Typically, health-profession schools express a preference for students who have a long record of consistently high-level performance and come highly recommended by the undergraduate school. Personal references are important. UW-Green Bay undergraduates interested in professional schools in the health sciences are encouraged to take advantage of opportunities to assist faculty members with high-level research, and to pursue their own research projects. Historically, such experience has been extremely helpful to UW-Green Bay students who were successful professional-school candidates.

Admission committees - particularly for medical schools - tend to seek applicants who give evidence of having the ability to be critical thinkers, problem solvers and lifelong learners. A well-rounded record of campus and community involvement, and intellectual curiosity across multiple fields, are other positive factors. Also subject to evaluation are perceived personality traits including capacity for compassion, decision-making and coping skills, communication ability and personal determination, among other attributes.

The best advice for UW-Green Bay students is to seek preprofessional faculty advisers in their interest area early in their academic careers for help in selecting courses and, later, in studying for professional school admission tests and applying to professional schools.

A good starting point for new freshmen is to review the University's Human Biology major which encompasses five areas of emphasis:

- Health science emphasis - recommended for preparation for medical, dental or other health-related professional schools, or for graduate programs in biological or health sciences.
- Exercise science emphasis - provides background for careers in exercise physiology/fitness, sports medicine, biomechanics, physical therapy or occupational therapy.
- The cytotechnology emphasis - leads to professional certification as a registered cytotechnologist (specialist in the microscopic study of cells, primarily for the detection of cancer).
- The nutritional sciences/dietetics emphasis - provides a focus on the biological and physical principles of nutrition. See the "Dietetics" listing on the previous page for additional information.
- General emphasis - appropriate for sales, managerial and other positions in the health sciences including entry-level research positions with pharmaceutical or biotechnology companies.

Refer to the Human Biology, Biology and Chemistry majors described elsewhere in this catalog for additional information.

## Law

Students attending UW-Green Bay with the intention of earning a bachelor's degree and continuing on to law school receive excellent preparation.
The University's commitment to broad-based liberal arts education, multiple perspectives and hands-on learning correlates directly with skills seen as valuable for those pursuing careers in law. Those skills include intellectual curiosity, critical thinking and problem-solving ability.

Commonly chosen majors at UW-Green Bay include Democracy and Justice Studies, Public Administration, Urban and Regional Studies, Humanistic Studies, Political Science, History, English, and Business Administration. Unlike some professional schools, law schools do not recommend a specific undergraduate major.

The American Bar Association advises pre-law candidates that the law is "too multi-faceted" to be limited to one particular major or a narrow list of courses in preparation for law school. The ABA maintains an excellent pre-law advising page (https://www.americanbar.org/groups/legal_education/ resources/pre_law/).

Most law schools tell potential students that the best preparation is a solid liberal arts education. Essential core skills and values include analytic and problem-solving skills, critical reading abilities, writing skills, oral communication and listening abilities, general research skills, task organization and management skills, and the values of serving faithfully the interests of others while also promoting justice.

In general, law schools assume their students will have a basic knowledge of American politics and history, as well as extensive experience in writing, reading and interpreting difficult texts. Polished communication skills - in particular the ability to excel in oral discussion - are imperative.

In conclusion, the ABA recommends, "Taking difficult courses from demanding instructors is the best generic preparation for legal education."
Admission to law school is competitive. Law schools consider college record, grade point average, honors or awards, faculty recommendations, and scores on the Law School Admissions Test (LSAT). Students are advised to take the LSAT in the junior year or early in the senior year; most law schools group their entering cohorts for fall-only starts. The Law Society, a UW-Green Bay student organization, organizes an LSAT preparatory course and offers various pre-law events such as guest speakers and field trips to law schools.

## Military Science

## Reserve Officers Training Corp (ROTC) Program

Instructor - SSG Billie Sabel - Military Science Instructor
E-mail: sabelb@uwgb.edu (predern@uwgb.edu); Phone: (920) 224-2354
Military science is concerned primarily with the exploration and development of leadership and management. Students who want to develop such skills pursue studies in military science in addition to their majors and minors. Students register for these courses at UW-Green Bay and the classes are conducted at UW-Green Bay and St. Norbert College.

Military science consists of a core curriculum of military skills and professional knowledge integrated in both basic and advanced courses. The ultimate purpose of the program is to provide college-trained officers for the U.S. Army, Army Reserve and Army National Guard. The program encourages participants to more fully develop personal qualities, including sense of duty, integrity, loyalty, respect, selfless service and honor, necessary for military leadership.

The program is conducted by the Reserve Officers Training Corp (ROTC) located at St. Norbert College. Completion of the advanced ROTC courses and a baccalaureate degree provides opportunities for full- or part-time careers as officers in the U.S. Army, Army National Guard, or Army Reserve.

## Courses

## MIL SCI 101. Leadership and Military Science I. 2 Credits.

This is an introductory course designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. The lab provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally, students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques.
Fall Only.

## MIL SCI 102. Leadership and Military Science II. 2 Credits.

This course is an orientation to leadership theory and the fundamentals of decision-making process by learning how to solve problems and develop critical thinking skills. Students develop followership skills and the ability to learn goal-setting techniques while working in a group interaction setting. The lab continues to provide basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance and squad battle drills. Students are introduced to the operations order format.
Spring.

## MIL SCI 103. Introduction to Military Science I. 1 Credit.

An introductory course designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. The course provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques. Students are eligible to attend Fox Valley Battalion events to include; Ranger Challenge, Commanders Cup competition and the Military Dining In.
Fall Only.

## MIL SCI 104. Introduction to Military Science II. 1 Credit.

Further development of leadership skills and the orientation of the ROTC program designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. the course provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques. Students are eligible to attend Fox Valley Battalion events to include: Ranger Buddy, Northern Warfare Challenge, Norwegian Foot March, German Armed Forces Badge Competition and the Military Ball.
Spring.

## MIL SCI 183. Military Conditioning. 1 Credit.

Students participate in the United States Army's military conditioning and fitness program designed to develop both individual fitness and the leadership skills and knowledge essential to the management of an effective organizational physical fitness program. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall and Spring.

## MIL SCI 201. Basic Leadership and Management I. 3 Credits.

Students learn how to resolve ethical problems by applying leadership theory and principles. Students learn self-development techniques such as the importance of stress management, time management and the ability to solve problems. Lastly, students apply communication theory and skills in a leadership study focusing on problem solving. The lab applies basic leadership theory and decision making during practical exercises in a field environment. Students continue to develop basic map reading, first aid, physical fitness and military formations to include basic march techniques. P: Mil Sci 101 and Mil Sci 102
Fall Only.

## MIL SCI 202. Basic Leadership and Management II. 3 Credits.

Students focus primarily on leadership with an extensive examination of the unique purpose, roles and obligations of commissioned officers. Students also focus, in detail, on the origin of our institutional values and their practical application in the decision-making process and leadership theory. Students use case studies to learn the Army's ethical decision-making process. The lab continues to apply basic leadership theory and decision making during practical exercises in a field environment. Students continue to develop basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101 and Mil Sci 102
Spring.

## MIL SCI 301. Advanced Leadership and Management I. 4 Credits.

Students are introduced to the Leader Development Program that will be used to evaluate their leadership performance and provide developmental feedback for the remainder of their cadet years. Cadets are taught how to plan and conduct individual and small unit training, as well as basic tactical principles. Cadets will also learn reasoning skills and the military specific application of these skills in the form of the Army's troop. The lab reinforces small unit tactical training while employing the troop leading procedure to accomplish planning and decision-making. Students continue to learn basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101, 102, 201, and 202
Fall Only.

## MIL SCI 302. Advanced Leadership and Management II. 4 Credits.

The course focus is doctrinal leadership and tactical operations at the small unit level. Students are provided opportunities to plan and conduct individual and collective training for Army operations. Synthesizing training, leadership and team building is the primary focus. Upon completion, students possess the fundamental confidence and competence of leadership in a small unit setting. The lab continues reinforcing small unit tactical training while employing the troop leading procedures to accomplish planning and decision-making. Students also continue basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101, 102, 201 and 202
Spring.

## MIL SCI 401. Applied Leadership and Management I. 4 Credits.

This course concentrates on leadership, management and ethics to begin the final transition from cadet to lieutenant. Students focus on attaining the knowledge and proficiency in several critical areas they need to operate effectively as Army Officers. These areas include coordinating activities with staff, counseling theory and practice within the "Army Context," training management and ethics. Students develop and possess the fundamental skills, attributes and abilities to operate as competent leaders in a cadet battalion. They must confidently communicate to subordinate cadets their preparedness to shoulder the responsibilities entrusted to them.
P: Mil Sci 301 and Mil Sci 302
Fall Only.

## MIL SCI 402. Applied Leadership and Management II. 4 Credits.

Students learn the legal aspects of decision-making and leadership. Instruction introduces the student to the organization of the Army from the tactical to the strategic level. Students learn administrative and logistical management focusing on the fundamentals of soldier and unit level support. Practical exercises require the student, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers. The lab continues to sharpen the students' leadership skills. Students normally change leadership positions to hone their skills, attributes and abilities as leaders. Again, they must confidently communicate to subordinate cadets their preparedness to shoulder the responsibilities entrusted to them.
P: Mil Sci 301 and Mil Sci 302
Spring.

## MIL SCI 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or =2.50; or jr or sr st with cum gpa $>$ or $=2.00$.

## Pharmacy

UW-Green Bay offers courses satisfying requirements for admission into a professional program in pharmacy. There are three schools in Wisconsin: UW-Madison, Concordia University, and MCW School of Pharmacy.

The practice of pharmacy is regulated by law and requires that a candidate be a graduate of an accredited professional school, complete an internship and pass a licensure examination. Pharmacy programs grant the degree of doctor of pharmacy, which requires a minimum of six years of postsecondary study. National statistics show most students have at least three years of undergraduate experience prior to entering the four-year course of study.

Advisers from UW-Madison usually visit UW-Green Bay each year to help pre-pharmacy students plan their programs. Admission to the School of Pharmacy is based on completion of prerequisite courses, grade point average, letters of recommendation, and Pharmaceutical College Admissions Test (PCAT) scores. Grade point averages in mathematics and science courses are particularly important.

Licensure involves rigorous requirements, including completion of 1,500 hours of internship to qualify for licensure. Following completion of the internship requirement, prospective pharmacists must pass an examination administered by the Wisconsin Pharmacy Examining Board. Graduates of the UW program pursue careers in community pharmacy, hospital pharmacy, and home care, assisted-living, extended care, and long-term care pharmacy. Other career opportunities include research and discovery in the pharmaceutical industry or education. In addition, studies in pharmacology (concerned with the properties, effects, and mechanisms of the action of drugs, and with the interactions between chemical agents and biological systems) and toxicology, the science of poisons, are available.

For more information about pre-pharmacy studies, contact the Human Biology Department. (https://www.uwgb.edu/human-biology/)

## Veterinary Medicine

Each school of veterinary medicine establishes its own requirements; therefore, students pursuing careers as veterinarians need to plan both preprofessional coursework and practical experiences to enhance their chances of acceptance. Veterinary schools value experience in working with animals as well as evidence of academic ability in preprofessional courses.

Wisconsin has a college of Veterinary Medicine at UW-Madison. The School of Veterinary Medicine does not offer a bachelor's degree program. However, the school does offer a number of courses that are available to undergraduates, and it offers residency, master's, Ph.D., and doctor of veterinary medicine (DVM) degrees. Scores from the Graduate Record Exam (GRE) must be submitted at the time of application. In addition to grade point average and GRE scores, evidence of motivation, promise of effective performance, communication skills, and breadth of experience, particularly that relate to veterinary practice, are taken into consideration.

At UW-Green Bay, most students pursuing this career path major in Biology with a Human Biology or Environmental Science minor. For more information about pre-veterinary medicine studies, contact the Biology Department (https://www.uwgb.edu/biology/).

# Undergraduate Course Descriptions Accounting (ACCTG) 

## Courses

## ACCTG 201. Principles of Financial Accounting. 3 Credits.

Principles, concepts and terminology of financial accounting including coverage of the measurement and recording of business income and transactions, current and long-term assets, current and long-term liabilities, corporate equity, and financial statement analysis. Ethical considerations and analysis of company statements are integrated into the course.
P: 15 credit hours with sophomore standing recommended
Fall and Spring.
ACCTG 202. Principles of Managerial Accounting. 3 Credits.
The use and understanding of management accounting information for planning, control, performance evaluation, decision making; product costing using traditional and activity based costing techniques, just-in-time, cost-profit-volume relationships, budgeting, variance analysis, decentralization, relevant costing, and ethics.
P: ACCTG 201 and sophomore standing.
Fall and Spring.

## ACCTG 297. Internship. 1 Credit.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit; may be taken 3 times for a total of 6 credits.

## ACCTG 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
ACCTG 299. 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.
ACCTG 301. Intermediate Accounting I. 3 Credits.
The course is the first of three intermediate accounting courses. Focus is on financial accounting theory, concepts, principles and procedures relating to the measurement and reporting of cash, receivables, inventories, and property, plant, and equipment and intangibles. Review and deep understanding of the full accounting cycle including journal entries, adjusting and closing entries, trial balance, and preparation and understanding of the balance sheet, income statement, statement of comprehensive income, and statement of cash flows.
P: ACCTG 201 with at least a "BC" grade and an overall minimum GPA of 2.5
Fall and Spring.

## ACCTG 303. Seminar in Accounting Professionalism. 2 Credits.

Seminar in Accounting Professionalism is designed to familiarize prospective accounting majors with their profession. Topics will include various career paths in accounting, professional demeanor, and professional ethics.
P: Acctg 201 and Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5
Fall Only.

## ACCTG 313. Intermediate Accounting II. 3 Credits.

The course is the second of three intermediate accounting courses. Emphasis is on developing financial statements that clearly and accurately depict a company's performance. Focus is directed on revenue recognition, investments, current liabilities, bonds, and leases.
P: ACCTG 301 with at least a BC grade and an overall minimum GPA of 2.5
Fall Only.
ACCTG 314. Advanced Accounting. 3 Credits.
Accounting for long-term investments; business combinations; preparation of consolidated financial statements; inter-company profit issues; intercompany debt issues; earnings-per-share calculations; accounting for foreign operations and partnerships.
P: ACCTG 301 with at least a BC grade and an overall minimum GPA of 2.5; REC: ACCTG 313.
Spring.

## ACCTG 316. Governmental and Nonprofit Accounting. 3 Credits.

Recommended for students planning to take the CPA exam. Financial and managerial accounting concepts, theory and terminology related to state and local governmental entities and not for profit organizations including universities, health care organizations, voluntary health and welfare organizations and other not for profit entities. Analysis of actual municipal financial statements. Case studies, group work and/or class presentations emphasize application of theory to actual situations including ethical considerations. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ACCTG 301 with at least a C grade and an overall minimum GPA of 2.5
Fall Only.

## ACCTG 323. Intermediate Accounting III. 3 Credits.

The course is the third of three intermediate accounting courses. Emphasis is on developing financial statements that clearly and accurately depict a company's performance. Focus is directed on accounting for income taxes, pensions and other postretirement benefits, share-based compensation and EPS, accounting changes and error corrections, and an in-depth review of the statement of cash flows.
P: ACCTG 301 with at least a BC grade and an overall minimum GPA of 2.5. REC: ACCTG 313
Spring.

## ACCTG 410. Introduction to Income Tax Theory and Practice. 3 Credits.

Federal income taxation, especially tax rules and the determination of taxable income for individuals. Topics include: exclusions, deductions, passive activity losses, property transactions, nontaxable exchanges, capital gains and losses.
P: ACCTG 201 with at least a C grade and an overall minimum GPA of 2.5
Fall Only.

## ACCTG 411. Accounting Information Systems. 4 Credits.

Principles of systems design, emphasizing organizational structure; internal control; flow charts and the impact of people on systems studies; systems requirements of the procedural areas of accounting systems, such as cash, purchasing, inventory management, sales, and billing.
P: ACCTG 202 with at least a BC grade; ACCTG 301 with a grade of $C$ or higher; and an overall minimum GPA of 2.5
Fall Only.

## ACCTG 412. Auditing Standards and Procedures. 4 Credits.

Audit standards, professional ethics, legal liability of auditors; audit procedures relating to assets, liabilities, equity, revenue and expense accounts; review of computer applications in auditing, statistical sampling and internal auditing. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ACCTG 301 with a grade of BC or higher; ACCTG 411; and an overall minimum GPA of 2.5
Spring.

## ACCTG 413. Income Tax Practicum (VITA). 3 Credits.

Students will work in the community to prepare tax returns for students, low income individuals and families, and the elderly.
P: ACCTG 201 and Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5 ; REC: ACCTG 410 Spring.

## ACCTG 414. Cost Accounting. 4 Credits.

Expands and broadens the cost accounting concepts and methods presented in ACCTG 202. The class includes accounting for Process and ABC product costing systems, standard costing, variance analysis, Balanced Scorecard and strategy measurement, inventory costing and management, cost allocations, quality, target costs and transfer pricing.
P: ACCTG 202 with at least a BC grade and an overall minimum GPA of 2.5. REC: MATH 260 or BUSAN 220
Spring.

## ACCTG 415. Advanced Income Tax Theory and Practice. 3 Credits.

Recommended for students planning to take the CPA exam. Advanced topics in federal taxation, with emphasis on the federal taxation of corporations, partnerships, and exempt organizations. Estate and gift taxation and the income taxation of estates and trusts. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ACCTG 301 and ACCTG 410 with at least a C grade and an overall minimum GPA of 2.5
Spring.

## ACCTG 423. Advanced Income Tax Practicum (VITA). 3 Credits.

This is a service learning course working in the community that provides free tax preparation for students, low income individuals and families, and the elderly, in conjunction with the IRS. Students apply their knowledge of tax law to the preparation and e-filing of advanced income tax returns. Advanced students also review the work of undergraduate preparers, and assist in the supervision and training of undergraduate preparers. This course is graded pass/no pass only.
P: ACCTG 410 and ACCTG 413, and an overall minimum GPA of 2.5
Spring.

## ACCTG 452. Accounting Data Analytics. 3 Credits.

Accounting analytics develops new insights and understanding of financial and non-financial performance by examination of large data sets pertaining to past financial and non-financial information and events. This course is intended to provide students with an understanding of data analytic thinking and terminology as well as hands-on experience with data analytics tools and techniques. Students should leave this course with the skills necessary to translate accounting and business problems into actionable proposals that they can competently present to managers and data scientists.
P: ACCTG 301 with at least a BC grade; BUSAN 220 or MATH 260 or PSYCH 205; and an overall minimum GPA of 2.5
Fall Only.

## ACCTG 460. Accounting Capstone. 3 Credits.

The accounting Capstone course focuses on applying and synthesizing accounting concepts to make sound financial decisions. Accounting concepts from financial accounting, cost accounting, accounting information systems, government and non-profit accounting, auditing, and taxation will be considered. Students will participate in the discussion of current and emerging accounting issues. Students will analyze and research complex accounting issues and conduct financial statement analysis to make recommendations for various business situations. The course is conducted in a seminar format through case studies and dialogues with local accounting professionals. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ACCTG major with an overall minimum GPA of 2.5 , senior standing, including at least 18 credits from accounting courses. REC: ACCTG 202 and ACCTG 301
Spring.

## ACCTG 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## ACCTG 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
ACCTG 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

## ACCTG 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: soph st and major/minor in Acctg; min 2.5 GPA.
ACCTG 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5
Fall and Spring.

## ACCTG 499. 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.

## Anthropology (ANTHRO)

## Courses

## ANTHRO 100. Varieties of World Culture. 3 Credits.

The variety of ways of life that exist in the world and the concepts of culture, cultural relativity, and ethnocentrism. Representative case studies of world cultures are considered.
Fall and Spring.

## ANTHRO 150. Food Culture \& Identity. 3 Credits.

Food is the very core of life and one of the most culturally prescribed areas of human experience. This course will study the role of food in human history, and the biocultural construction of what is classified as food. We will examine the meaning of food across cultures with particular attention to how cultural and ethnic (e.g. Asian American, Native American) identities are associated with particular types of food. Rituals, religions and family celebrations, and secular holidays all include the deliberate preparation, serving and sharing of food (or abstinence from food). We will explore food consumption and health, the gendered dimension of food, and the social hierarchies and power relations associated with the commodification of food. Class projects are designed to connect the student to various community and ethnic groups through the study of farmer's markets, food banks, stores and restaurants. We will think about food in new and provocative ways and in the process practically apply theoretical concepts.

## ANTHRO 250. Women in Cross-Cultural Perspectives. 3 Credits.

Study of women in a variety of cultures around the world, both past and present. Includes consideration of the sexual division of labor, marriage systems, child rearing, relationships between men and women, systems of myth and ideology concerning women's roles, and the effects of socioeconomic development and rapid social change. Not recommended for first-semester students.

ANTHRO 291. Selected Topics in Anthropology. 3 Credits.
A specific topic in an instructor's area of special competence. When offered, the particular topic is indicated in the campus timetable. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: Previous Anthropology course or cons. instr.
ANTHRO 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ANTHRO 304. Family, Kin, and Community. 3 Credits.

A cross-cultural comparison of the form and function of such social institutions as marriage and the family; age, sex and kin groups; task groups; caste and class.
P: Junior standing REC: Anthro 100
Fall Only.

## ANTHRO 306. Environmental Anthropology. 3 Credits.

This course focuses on the complex relations between people and their environment. Environmental anthropology has become more important since the 1990 s due to issues like climate change. The course addresses the ways a population affects the environment and how these relations influence the social, economic, and political life of a culture. The topics covered in this class are particularly relevant in an era bombarded with concerns about environmental degradation. Environmental anthropology, utilizing research methodology of the discipline, uses a multidisciplinary and cross-cultural approach in a search for sustainable solutions to problems.
P: Anthro 100 or consent of instructor
Fall and Spring.
ANTHRO 307. Anthropological Theory. 3 Credits.
Explores the historical contexts of the development of theory in anthropology in the attempt to define and understand human biological, linguistic, social and cultural universals and variations. The major schools of anthropological theory are studied by reading and discussing original 19th and 20th century anthropological texts.
P: ANTHRO 100
Spring.

## ANTHRO 314. Cultures of the World. 3 Credits.

Ethnographic survey of the world's peoples and their cultures. Major regions of the world considered in an attempt to outline the variety, richness, significance and persistence of cultural traditions.
P : Junior standing or consent of instructor.
ANTHRO 320. Myth, Ritual, Symbol and Religion. 3 Credits.
Mythology, ritual, and symbolism in the belief systems of a variety of cultures around the world; a survey of anthropological theory relating to belief systems.
P: jr st and Anthro 100.
Fall Only.

## ANTHRO 348. Economic Anthropology. 3 Credits.

Economic Anthropology explores human engagement in systems of production, distribution, and consumption of goods. This course surveys the ways in which economic activities are enmeshed in local cultural rituals and obligations and form the basis of global economic exchanges. Students will examine a variety of past and contemporary economies at the local (subcultures including minority groups within the United States) as well as global level.

## ANTHRO 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
ANTHRO 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: so st; and Anthro 100, 210 or 215.
Fall and Spring.

## Arabic (ARABIC)

## Courses

ARABIC 101. Introduction to the Arabic Language I. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Arabic.
Fall Only.
ARABIC 102. Introduction to the Arabic Language II. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Arabic.
P: Arabic 101 or 1 year h.s. or 1 semester college Arabic.
Spring.
ARABIC 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.

## Art (ART)

## Courses

ART 101. Tools, Safety, and Materials. 1 Credit.
Acquaints students with a wide range of materials and safe working practices and methods.
Fall and Spring.
ART 102. History of the Visual Arts: Ancient to Medieval. 3 Credits.
Survey of the visual arts: prehistoric to the late Gothic period.
Fall Only.
ART 103. History of the Visual Arts II: Renaissance to Modern. 3 Credits.
Survey of the visual arts: early Renaissance to the modern period.
Spring.

## ART 105. Introductory Drawing. 3 Credits.

Introduction to the fundamental concepts of drawing; emphasis on two-dimensional artwork employing various drawing techniques in black and white media. Students are required to purchase a list of supplies for the class.
Fall and Spring.

## ART 106. Three Dimensional Design. 3 Credits.

Investigates spatial design as a decision-making and problem-solving process bounded by criteria which include human sensory systems, basic structural systems and materials.
P. None

Fall and Spring.

## ART 107. Two-Dimensional Design. 3 Credits.

Design studio art work and fundamental concepts of art structure and composition, color and design, applying the elements and principles of design. Students are required to purchase a list of supplies for the class.
Fall and Spring.
ART 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## ART 202. Modern Art. 3 Credits.

Key concepts of modern art, the visual art which emerged and the corresponding issues they raise; explores the wider cultural matrix in which modern artistic ideas develop.
Spring.

## ART 203. Contemporary Art. 3 Credits.

Investigation of art works and concepts from 1960 to the present.
P: None. REC: ART 202
Fall Only.
ART 210. Introduction to Painting. 3 Credits.
Introduction to acrylic painting techniques, principles of composition, and color mixing. Emphasis on observational painting with an introduction to abstraction.
P: Art 105 or 107; REC: Art 101 and 106.
Fall and Spring.

## ART 220. Introduction to Sculpture. 3 Credits.

Survey of various sculpture media, processes, and stylistic approaches; aesthetics and history of sculpture.
P: ART 101, ART 106, degree-seeking student. REC: ART 105 and ART 107.
Fall and Spring.
ART 230. Introduction to Ceramics. 3 Credits.
Survey of various ceramic forming and firing processes, stylistic approaches; traditional and contemporary aesthetics, and history of ceramics.
P: none: REC: Art 105 and 106 and 107.
Fall and Spring.

## ART 235. Introduction to Woodworking and Furniture Design. 3 Credits.

Students explore a variety of woodworking processes, from use of hand tools to basic use of machines. Focus is placed on the student's ability to build technical skills and on aesthetic approaches to using wooden materials.
P: degree-seeking student. REC: ART 105, 106, and 107
Fall and Spring.

## ART 243. Introduction to Photography. 3 Credits.

The creative process in photography is studied to develop visual perception and photographic design ability through active participation, photographic exercises, and discussions analyzing student work. Camera is required for course. Option 1: Digital SLR camera with viewfinder, interchangeable lenses, ability to manually adjust focus, aperture, shutter speed and white balance. Option $2: 35 \mathrm{~mm}$ ) film camera with the ability to function in all manual mode.
Fall and Spring.

## ART 250. Introduction to Fibers/Textiles. 3 Credits.

An introductory overview of the field of textiles and fiber arts. Students will learn basic processes as well as some of the intellectual, philosophical and historical considerations specific to the study of art cloth, fiber sculpture, textile construction, and embellishment.
P: none; REC: Art 105, 106 and 107.
Fall and Spring.
ART 260. Introduction to Jewelry/Metals. 3 Credits.
Designing and creating jewelry projects using varied metal techniques, processes and metal media; forming, shaping and designing of jewelry. P: none; REC: Art 105, 106 and 107.
Fall and Spring.
ART 270. Introduction to Printmaking. 3 Credits.
Concept development as it integrates with the exploration of various printmaking media such as relief, monoprint, collagraph, and intaglio.
P: Art 105; REC: Art 106 and 107.
Fall and Spring.

## ART 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ART 299. 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.

ART 302. Intermediate Drawing. 3 Credits.
Investigation of drawing processes and structures in two-dimensional media; includes drawing the human figure; drawing techniques in black, white, and color media.
P: Art 105, 106 and 107.
Fall Only.
ART 304. Figure Drawing. 3 Credits.
Exploration of the figure/body as concept, expression, structure, and subject matter in drawing media. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Art 105, 106, 107; REC: Art 210
Spring.
ART 310. Intermediate Painting: Media Exploration. 3 Credits.
Experimentation with a variety of painting media (encaustic, egg tempera, watercolor, handmade acrylic paint, acrylic mediums \& additives) as a way to connect process, material, and concept. Reciprocal influence of studio areas is encouraged.
P: Art 101, 105, 106, 107, and 210 REC: Art 302 \& 375
Fall Odd.
ART 311. Intermediate Painting: Contemporary Approaches. 3 Credits.
Students will study the conceptual framework, compositional structures, and techniques/materials used in contemporary painting as a springboard for developing their own paintings.
P: Art 101, 105, 106, 107 and 210.
Spring.

## ART 320. Art and Ideas. 3 Credits.

Art is created to serve many purposes and may be viewed in many ways. This course will investigate diverse examples of visual culture, their contexts, and strategies for viewing and understanding art.

## ART 321. Intermediate Sculpture. 3 Credits.

Intermediate work in sculpture including fabrication, casting, carving, and/or modeling; development of individual expression.
P: ART 101, 105, 106, 107 and 220, degree-seeking student.
Fall and Spring.
ART 331. Intermediate Ceramics. 3 Credits.
Intermediate work in ceramic media: mold work, wheel work or hand building; aesthetics, history and technology of ceramics.
P: Art 105, 106, 107 and 230, Degree Seeking
Fall and Spring.
ART 335. Intermediate Woodworking \& Furniture Design. 3 Credits.
This course is designed to provide an in-depth concentration on wooden materials and technique through creating functional furniture projects. Historical and contemporary issues in furniture design are discussed through lectures, slide presentations and critiques, and students are introduced to a wide variety of functional forms. Students explore structural system and appropriate joinery in furniture design. Preliminary drawings, both small and full scale, are required.
P: ART 235, degree-seeking student
Spring.
ART 343. Photography II. 3 Credits.
Black-and-white photography, printing practices, and analysis of student work. Cameras available for checkout through the instructor at no cost or students may use their own 35 mm film camera or medium format film camera with the ability to function in all manual mode.
P: Degree-seeking students only. REC: ART 107 and ART 243
Fall and Spring.
ART 344. Photography III. 3 Credits.
Creative applications of digital photography including advanced understanding of digital cameras, photoshop, large format printing and photographic documentation. Cameras available for checkout for at no cost through the instructor or students may use their own digital SLR with the ability to function in full manual mode.
P: Degree-seeking students only; ART 343.
Fall Only.
ART 355. Intermediate Fibers/Textiles. 3 Credits.
Expanded exploration of the cloth matrix and fiber media. Textile construction using felting, papermaking and other off-loom techniques. Processing and manipulation of fibers into three-dimensional sculptural forms.
P: ART 105, ART 106, ART 107 and ART 250.
Fall and Spring.

ART 364. Intermediate Jewelry/Metals. 3 Credits.
Intermediate jewelry and art metals techniques: casting, fabricating and assembling mixed-media objects.
P: Art 260 REC: Art 106.
Fall and Spring.

## ART 370. Professional Practices in Art. 3 Credits.

Study of professional practices in the contemporary art world: opportunities, exhibitions, studio practice, writing, visual documentation and presentation, social media, ethics, and business of art. This course aims to give students the skills to navigate the multi-faceted art world. Recommended for students who plan on participating in the senior exhibition.
$P$ : Sophomore standing and minimum of one lower level studio course.
Spring.

## ART 373. Intermediate Printmaking. 3 Credits.

Expanded idea development as it relates to hand and digital/photo-based print processes, such as relief, intaglio, monoprint, lithography or combined print applications. Course print techniques rotate semester by semester to allow a deeper exploration into particular areas. Student responsibilities include readings, discussions, one presentation, and print creation.
P: ART 105, ART 107 and ART 270. REC: ART 302, ART 304
Fall Only.
ART 375. Screen Printing. 3 Credits.
Studio work in the art of screen printing, including print concept development, basic materials and equipment and processes including: blockout stencil and photo-emulsion.
P: ART 105, ART 107; and either ART 270 or ART 243 or DESIGN 231
Spring.

## ART 376. Modern American Culture. 3 Credits.

Outsider Art, Folk Art, Fads, fashion and popular art: the media, music, advertising and entertainment as they express the intimate unguarded concerns of modern America.
P: Jr st. or Art, Design Arts, Arts Management or Theatre major
Fall Even.
ART 377. Lithography. 3 Credits.
Concept development integrated with lithography process including: Traditional stone lithography, plate lithography, waterless and photo litho plate lithography, and "mokuhanga" (lithography on wood plates) using hand-drawn images and digital/photo-based images.
P: Art 105, 106, 107 and 270.
Fall and Spring.
ART 379. Women, Art and Image. 3 Credits.
Examines the impact women have made on art historically as of artists, muses, models, dealers, benefactors and critics with emphasis on images of women in visual culture, deconstructing notions of identify, others and beauty in contemporary society and in the past.
P: jr st; REC: Art 202 or WOST 241
Spring Odd.

## ART 380. History of Photography. 3 Credits.

This course surveys the major historical, technical, conceptual and theoretical movements within the history of fine art photography. Students will learn photography's role in reflecting and shaping the cultural, social, political, economic, and scientific contexts from 5th century B.C.E. to the present.
$P$ : Junior standing
Fall Odd.
ART 381. Art of the First Nations. 3 Credits.
An upper-level survey of the arts of the First Nations peoples of North America. The historical and cultural contexts in which Native American arts were, and are, produced will be examined. Modern and contemporary arts will be incorporated throughout the semester.
$P$ : junior standing
Fall Odd.

## ART 382. Precolumbian Art of Mesoamerica. 3 Credits.

An upper-level survey of the Precolumbian art of Mexico and Central America. The course will examine the art and culture of the major civilizations in the region including the Olmec, Zapotec, Teotihuacan, Maya, Toltec, Mexica (Aztec), and the West Coast chiefdoms. While form and technique will be covered, the principal emphasis will be upon understanding the differing contexts (both religious and secular) in which art was created in this region.
REC: Art 102
Spring Even.

## ART 383. African Art. 3 Credits.

This class offers a general survey of the traditional \& non-traditional arts of sub-Saharan Africa with an emphasis on the Western and Central regions. The religious, social, historical, and performative contexts in which African arts were, and are, produced will be examined. The course will emphasize the historic development of regional art styles on the continent, the role of gender in performance and artistic production, as well as the legacy of European colonialism.
P: Junior standing
Fall Even.

## ART 384. Asian Art. 3 Credits.

Survey of art and architecture of India, Southeast Asia, China, Korea, and Japan. Each country has a distinctive characteristic in art forms, materials, styles and purposes in creating art. Students will become familiar with major monuments of Asian countries in historical contexts, and develop their skills in analyzing differences in religion, culture, and aesthetics in each country. Students will acquire basic knowledge on artists, key vocabularies, styles of traditional arts, and religious and iconographic concepts of Asian arts.
$P$ : Junior standing
Spring Odd.
ART 402. Advanced Drawing. 3 Credits.
Development of personalized imagery with continuing conceptual, formal, and technical exploration; encourages recriprocal influence of studio areas and learning experiences. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: ART 302 or ART 304 or permission of instructor
Fall Even.

## ART 410. Advanced Painting. 3 Credits.

Development of personalized imagery with continuing conceptual, formal, and technical exploration; encourages reciprocal influence of studio areas and learning experiences. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Art 309 or 310, AND 311, OR permission of instructor
Fall and Spring.

## ART 421. Advanced Sculpture. 3 Credits.

Exploration and refinement of sculptural investigations towards a meaningful and personal body of work. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Art 321, degree-seeking student
Fall and Spring.

## ART 431. Advanced Ceramics. 3 Credits.

Extension and development of ceramic techniques and aesthetics into a significant and personal body of work. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Art 331, Degree Seeking
Fall and Spring.

## ART 435. Advanced Woodworking \& Furniture Design. 3 Credits.

After exploring the boundaries of woodworking at the intermediate levels, students in this course develop a portfolio-quality body of work through intensive technical and aesthetic approaches to ceramics. Students develop skills for writing artist statement and proposals, as well as presenting their own work in a professional fashion. Course is repeatable for credit; may be taken 3 times for a total of 9 earned credits.
P: degree-seeking student, ART 235 and ART 335
Spring.
ART 443. Advanced Problems in Photography. 3 Credits.
Participants identify an area of interest and the problems implied and are directed to appropriate resources. Seminars support production of a major photographic portfolio. Cameras available for checkout for at no cost through the instructor or students may use their own camera of any format appropriate to the direction of their portfolio. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Degree-seeking students only; ART 344
Spring.

## ART 453. Advanced Fibers/Textiles. 3 Credits.

Exploration of one area of textiles or fiber art such as papermaking, weaving, surface design or applied techniques in directed study with emphasis on development of a personal artistic voice in the media. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Art 355.
Fall and Spring.

## ART 463. Advanced Jewelry/Metals. 3 Credits.

Advanced techniques in jewelry; creative research and investigation of metals and jewelry media. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: Art 364.
Fall and Spring.

ART 470. Advanced Printmaking. 3 Credits.
Advanced techniques and individual expression in one area of printmaking: intaglio, relief, lithography or screen printing. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: ART 373 or ART 375. REC: ART 105, ART 107, ART 302, ART 304
Fall and Spring.
ART 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
ART 481. Advanced Topics in Art History. 3 Credits.
An upper-level art history course with changing topics that will offer in-depth investigation of a particular period or subject within the history of art from a global perspective. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: 6 credit hours of art history
Fall Only.

## ART 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
P: Cumulative GPA 2.75 or above; Declared Art Major; Minimum 6 credits upper level coursework in specified studio area; Permission of Supervising Faculty Member; ART 101
Fall and Spring.
ART 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.
ART 497. Internship. 1-12 Credits.
Internship with an outside museum or gallery. Activities are determined by the curator of art and a professional in the sponsoring institution. Course is repeatable for credit.
P: jr st.
Fall and Spring.
ART 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa > or =2.50; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ART 499. 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.

## Arts Management (ARTS MGT)

## Courses

## ARTS MGT 256. Understanding the Arts. 3 Credits.

An introduction to the language of the visual and performing arts, including direct experience of art forms, and incorporating comparative studies of the elements and structural principles employed among the arts. Development of student's aesthetic literacy, and their ability to articulate informed responses to art forms.
Spring.

## ARTS MGT 257. Arts in the Community. 3 Credits.

The role of arts and cultural activities within a community's social, political, and economic structures. Emphasis on cultural delivery systems in urban, rural and suburban settings; evaluation of artistic quality in a community context, and models for intergration of culture into civic life.
Fall Only.

## ARTS MGT 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ARTS MGT 354. Managing Arts and Cultural Organizations. 3 Credits.

An overview of the field of arts management with an emphasis on not-for-profit arts and cultural organizations and the role of the professional manager within the field, including governance, planning, assessment, audience development, fund-raising and advocacy.
P: Arts Mgt major or minor or permission by instructor. REC: Arts Mgt 261 or Arts Mgt 257
Spring.

## ARTS MGT 355. Funding and Financial Issues in the Arts. 3 Credits.

Investigation of a variety of financial issues, including earned and contributed income, sponsorships, foundations and grants; introduction to standard budget and accounting terminology and principles as applied in arts management.
P: Arts Mgt 354.
Fall Only.

## ARTS MGT 356. Promoting the Arts. 3 Credits.

Approaches to promoting the arts, developing audiences through marketing, using various public relations and advertising tools and techniques.
P: Arts Mgt 354.
Spring.

## ARTS MGT 357. Gallery \& Museum Studies. 3 Credits.

Standards, practices and methods of the museum and art gallery profession: planning, promotion, and publicity; development of educational materials and programs; exhibition design and installation; proper handling and treatment of works of art and historical artifacts. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: ARTS MGT major or minor. REC: Arts Mgt 257
Fall and Spring.

## ARTS MGT 455. Practicum in Arts Management. 3 Credits.

Practical work in completion of student-directed arts management projects, working both in teams and individually. Projects may deal with marketing, audience analysis and development, funding, and/or educational aspects of arts management.
P: Cons of instr. Rec: Arts Mgt 355 and 356.
Fall and Spring.

## ARTS MGT 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## ARTS MGT 480. Arts Management Seminar. 1 Credit.

Exploration of issues pertinent to arts management using research, case studies and practical applications. Course is repeatable for credit; may be taken 6 times for a total of 6 credits.
P: Arts Mgt 354; Arts Management Maj/Min
Fall and Spring.

## ARTS MGT 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.

## ARTS MGT 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

## ARTS MGT 497. Internship. 1-12 Credits.

Instruction and experience in a professional environment where students work in any aspect of the field appropriate to their academic preparation and career goals under professional and faculty supervision. Course is repeatable for credit. No more than 3 credits may be used to meet requirements for a major or minor.
P: jr st and 3.0 gpa in major emphasis (dept will monitor gpa req).
Fall and Spring.

## ARTS MGT 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Biology (BIOLOGY)

## Courses

BIOLOGY 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall Even.
BIOLOGY 200. Principles of Biology Discussion: Cellular and Molecular Processes. 1 Credit.
This discussion course is designed to supplement the concepts presented in BIOLOGY 201. Activities will focus on deeper exploration of the biology of organisms at the molecular and cellular level and will emphasize skills necessary for success in the introductory biology sequence.
P: Concurrent enrollment in BIOLOGY 201
Fall and Spring.

## BIOLOGY 201. Principles of Biology: Cellular and Molecular Processes. 3 Credits.

Study of biological principles, focusing on macromolecules and biological chemistry, cellular structure and function, energy metabolism, gene expression, genetics, and cell division. This course is intended for science majors and is taught with the expectation that students have a solid background in biology and chemistry gained through prior classes taken at the high school or college level and/or an ACT Science Score of 24 or greater. For students without this background, it is strongly suggested that HUM BIO 102 or BIOLOGY 203 are taken before BIOLOGY 201, or that BIOLOGY 200 is taken concurrently.
P: CHEM 207 (or conc enrl) AND BIOLOGY 202 (or conc enrl). REC: ACT science score 24 or greater OR completion of AP Bio course OR completion of 4 science courses in HS (including a minimum of 2 Bio courses and 1 Chem course) OR conc enrl in BIOLOGY 200
Fall and Spring.
BIOLOGY 202. Principles of Biology Lab: Cellular and Molecular Processes. 1 Credit.
This lab course offers an introduction to the biology of organisms at the molecular and cellular level. Labs will focus on the chemical, genetic, and microscopic properties shared by cells. This is a beginning biology course for students who wish to major in Biology, Human Biology or Environmental Science.
P: CHEM 207 (or concurrent enrollment) AND grade of C or better in BIOLOGY 201 (or concurrent enrollment).
Fall and Spring.

## BIOLOGY 203. Principles of Biology: Organisms and Evolution. 3 Credits.

Survey of the evolution and diversity of life, with focus on general biological principles, anatomy and physiology, and consideration of interactions from the cellular to organismal level.
P: CHEM 207 or concurrent enrollment AND BIOLOGY 204 or concurrent enrollment
Fall and Spring.

## BIOLOGY 204. Principles of Biology Lab: Organisms and Evolution. 1 Credit.

Hands-on laboratory reinforcing material covered in Biology 203. Laboratory activities explore the structure of seed plants, comparative morphology of animal phyla, dichotomous taxonomic keys, phylogeny, and experimental approaches to plant and animal physiology. This writing emphasis course covers the process and techniques of scientific writing.
P: CHEM 207 or concurrent enrollment AND BIOLOGY 203 or concurrent enrollment.
Fall and Spring.
BIOLOGY 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## BIOLOGY 299. 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.

## BIOLOGY 303. Genetics. 3 Credits.

Mechanisms of heredity and variation, their cytological and molecular basis and their implications in biological technology.
P: Biology 201/202 with at least a C grade; Chem 108 or 212 with at least a C grade; Math 260 with at least a C grade;
Fall and Spring.

## BIOLOGY 304. Genetics Laboratory. 1 Credit.

Basic techniques of genetic research; laboratory investigation and analysis of animal, plant, and human patterns of inheritance.
P: Biology 303 with at least a C grade AND Chem 207 or concurrent enrollment
Fall Only.
BIOLOGY 306. Principles of Ecology. 4 Credits.
Ecological principles governing interactions of plants and animals in their physical and biotic environments. Focuses on organisms and their environment, populations, communities, ecosystems, and global dimensions.
P: MATH 104 or Math Placement of MATH 202 or greater; MATH 260 or enrolled concurrently in MATH 260; BIOLOGY 203 all with a C or better Fall and Spring.

## BIOLOGY 307. Cell Biology. 3 Credits.

A study of the fundamental biological processes that occur within a cell and its normal environment. Topics include cellular molecules and metabolic processes; membranes and organelles; synthesis and regulation of macromolecules; protein sorting and transport, cytoskeleton; signal transduction, cellular interactions, cell cycle and growth of normal and neoplastic cells.
P: Biology 201 with at least a C grade; AND Chem 108 or 212 with at least a C grade; AND Biology 303 or Hum Biol 310
Fall and Spring.

## BIOLOGY 308. Cell Biology Laboratory. 1 Credit.

A laboratory course examining the microscopic, biochemical and molecular approaches used to investigate cellular structure and function.
P: Biology 202 with at least a C grade; AND Chem 108 or 212 with at least a C grade; AND MATH 260 with at least a C grade; AND Biology 307 with at least a C grade or conc enr; AND Chem 207 or conc enr
Fall and Spring.

## BIOLOGY 309. Evolutionary Biology. 3 Credits.

Patterns and processes of biological evolution and their significance for modern biology. Topics include the history of life, population genetics, speciation, and evolution in populations today.
P: Biology 201/202 with at least a C grade and either Biology 203 or Human Biology 240/241 with at least a C grade
Fall and Spring.

## BIOLOGY 310. 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: Biology 201/202 with at least a C grade and Biology 203/204 with at least a C grade, or transfer cse Biology 003.
Spring Even.

## BIOLOGY 311. 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: Biology 201/202 with at least a C grade and Biology 203 with at least a C grade, or transfer cse Biology 003; and Chem 212.
Fall Only.

## BIOLOGY 312. 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: Biology 201/202 with at least a C grade or transfer cse Biology 003.
Fall Odd.
BIOLOGY 320. Field Botany. 4 Credits.
Identification and natural history of plants indigenous to the Great Lakes region. Students will become proficient at using keys to identify unknown plants to the species level, be able to identify at sight the woody plants of northeastern Wisconsin, be able to recognize major plant communities of Wisconsin, and gain an understanding of basic organismal botany. An all-day field trip during one weekend day in mid-September is required.
P: Biology 201/202 with at least a C grade and Biology 203/204 with at least a C grade, or transfer course Biology 003.
Fall Even.
BIOLOGY 322. 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: BIOLOGY 201/202 with at least a C AND CHEM 207 or conc enr
Spring.

BIOLOGY 323. Principles of Microbiology. 3 Credits.
Microorganisms and their activities; their form, structure, reproduction, physiology, metabolism, and identification; their distribution in nature and their relationship to each other and other living things.
P: BIOLOGY 201 \& BIOLOGY 202 with at least a C grade
Fall and Spring.
BIOLOGY 324. Principles of Microbiology Laboratory. 1 Credit.
Laboratory Course that accompanies BIOLOGY 323.
P: BIOLOGY 323 or concurrent enrollment AND CHEM 207 or concurrent enrollment
Fall and Spring.

## BIOLOGY 340. Comparative Anatomy of Vertebrates. 4 Credits.

A lecture and laboratory course examining the anatomy of organs and organ systems of the vertebrates with emphasis on adaptations. Specimens primarily studied in the lab are the shark and cat.
P: Biology 201/202 with at least a C grade and Biology 203/204 with at least a C grade; OR transfer cse Biology 002; AND CHEM 207 or conc enr. Fall Only.

## BIOLOGY 341. 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.
P: BIOLOGY 306
Spring Even.
BIOLOGY 342. Ornithology. 4 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: Biology 201/202 with at least a C grade and Biology 203/204 with at least a C grade, or transfer cse Biology 002.
Spring Even.

## BIOLOGY 343. Mammalogy. 4 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: BIOLOGY 201, BIOLOGY 202, BIOLOGY 203, and BIOLOGY 204 with at least a C grade
Spring Odd.
BIOLOGY 345. Animal Behavior. 3 Credits.
Biology of animal behavior patterns; behavioral interactions of animals with their environment.
P: Biology 201/202 with at least a C grade.
Spring Even.

## BIOLOGY 346. Comparative Physiology. 3 Credits.

Ways in which dissimilar organisms perform similar functions. Behavioral, physiological, and biochemical solutions to problems imposed on invertebrate and vertebrate animals by their environment.
P: (BIOLOGY 201 \& BIOLOGY 202 wth at least a C grade) AND (BIOLOGY 203 \& BIOLOGY 204 with at least a $C$ grade or HUM BIOL 240 \& HUM BIOL 241 with at least a C grade or HUM BIOL 222 with at least a C grade); AND CHEM 212
Spring.

## BIOLOGY 355. 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: Biology 201/202 with at least a C grade and Biology 203/204 with at least a C grade, or transfer cse Biology 002; REC: Biology 353.
Fall Odd.

## BIOLOGY 357. 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.
P: Biology 201/202 with at least a C grade, and Biology 203/204 with at least a C grade. REC: Env Sci 302
Spring Odd.

## BIOLOGY 360. Early Life History of Fish. 4 Credits.

This course covers the early life history of freshwater, estuarine, and marine fishes from reproduction through metamorphosis. It will also help students develop an understanding of the history and principles of aquaculture, including common culture systems, biotic and abiotic factors regulating success, and choice of species. Students will extensively cover topics such as: egg and larval development, metamorphosis, larval feeding, behavior, growth, predation and starvation, and factors affecting these processes. Fish larval ecology, factors determining recruitment and sampling methods will also be covered. The course will include a laboratory section where we will study both living and fixed gonads, eggs, larvae and juveniles from selected species. P: None. REC: BIOLOGY 341 with at least a C grade
Spring Even.

## BIOLOGY 365. Aquatic Invertebrates. 4 Credits.

An exploration of the biology, ecology and importance of freshwater invertebrates, with an emphasis on aquatic insects.
P: BIOLOGY 201 \& BIOLOGY 202 with at least a C grade and BIOLOGY 203 \& BIOLOGY 204 with at least a C grade Spring Odd.

## BIOLOGY 370. Fisheries Research and Management. 3 Credits.

Field and laboratory techniques for fishery research and management. Principles of designing research projects, assessing and managing aquatic ecosystems. Students will learn the fundamentals of testing hypotheses, sampling fish, analyzing fishery data, reporting results in both written and oral forms, and defending their research and management decisions.
P: ENV SCI 102/103
Fall Odd.

## BIOLOGY 375. Conservation Genetics. 3 Credits.

This course focuses on the application of genetic analyses tools and bioinformatics to management and recovery of species of interest. This course will include extensive use of public-domain genetic analysis programs to address general questions in wildlife and fisheries management. Throughout this course, students will gain an understanding of molecular markers and their application in a conservation context as well as methods of analysis.
P: BIOLOGY 303 or HUM BIOL 310
Spring Even.

## BIOLOGY 401. Fish and Wildlife Population Dynamics. 4 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 402. Advanced Microbiology. 4 Credits.

Study of viruses, bacteria, and viruses in relationship to their environment.
P: BIOLOGY 323 \& BIOLOGY 324 or HUM BIOL 323 \& HUM BIOL 326 with at least a C grade; MATH 260 with at least a C grade; AND CHEM 207 or conc enr
Fall Only.

## BIOLOGY 407. 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: Biology 303 with at least a C grade or Chem 330 with at least a C grade; REC: Chem 300 or 303.
Spring Odd.

## BIOLOGY 408. 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: Biology 407 or conc enr; and Chem 207 or conc enr
Spring Odd.

## BIOLOGY 410. Developmental Biology. 3 Credits.

This course covers both the classical experiments that contributed to our understanding of developmental biology and the recent explosion of information about development made possible by a combination of genetic, cellular, and molecular approaches. Examples from vertebrate and invertebrate systems will be used to illustrate underlying principles and concepts. Topics include axis formation, induction, morphogenesis, embryonic pattern formation, cell differentiation, and organogenesis.
P: Biology 303 or 307 or Hum Biol 310 with at least a C grade.
Spring.

## BIOLOGY 411. Developmental Biology Laboratory. 1 Credit.

Laboratory will introduce descriptive and experimental embryological techniques using a variety of model organisms.
P: Biology 410 with at least a C grade or concurrent enrollment; AND Chem 207 or conc enr
Spring.

## BIOLOGY 449. 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: BIOLOGY 306 or consent of instructor
Spring Even.

## BIOLOGY 450. Ecological Restoration. 3 Credits.

Overview of how ecological and biological processes can inform and guide restoration of degraded systems. What can the science of ecology bring to the practice of restoration? Exploration of case studies and on-the-ground field experiences.
P: BIOLOGY 306
Spring Even.

## BIOLOGY 469. 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: BIOLOGY 306 with at least a C grade or consent of instructor
Fall Only.

## BIOLOGY 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## BIOLOGY 490. Biology Seminar. 1 Credit.

This course provides an interdisciplinary capstone experience for upper-level students majoring in biology. Class activities introduce students to academic and professional infrastructures, career opportunities, and major conceptual issues in the biological sciences, including the socioeconomic impacts of new advances in biology. During a significant part of the course, students will read and discuss current articles from the primary scientific literature. Teams of students will lead class discussions about cutting-edge discoveries and new concepts conveyed in the selected articles.
Presentations will fulfill the communication objective for a capstone experience in the UW-Green Bay General Education curriculum. The class discussions will address the interdisciplinary implications of new biology discoveries and their relevance to current socioeconomic problems. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
P: Biology major with jr st
Fall and Spring.

## BIOLOGY 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
BIOLOGY 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: Chem 207 and approval by faculty mentor
Fall and Spring.

## BIOLOGY 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
BIOLOGY 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## BIOLOGY 499. 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.

## Business Administration (BUS ADM)

## Courses

BUS ADM 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
BUS ADM 201. Principles of Sustainability in Business. 3 Credits.
This is an introductory course in sustainability in business. This course is intended to provide high-level concepts business managers are expected to know about sustainability. These concepts will include the triple bottom line of sustainability, carbon footprint, dangers of not paying attention to the environment and society while making business decisions.
P: Sophomore standing
Fall and Spring.
BUS ADM 202. Introduction to Business. 3 Credits.
The major components of the business enterprise and its resources, competitive and regulatory environment; pricing, profit, finance planning, controls, ethics, environmental impact, social responsibility and other important concepts; environmental issues that challenge the business leader.
Fall and Spring.

## BUS ADM 206. Law and the Individual. 3 Credits.

The American legal system; its principles, processes, language, ethics and laws from the viewpoint of the individual, including family, personal injury, property, consumer, privacy, probate and administrative laws.
Fall and Spring.

## BUS ADM 210. Professional Skills for Your Career. 1 Credit.

Students learn how to search for careers that are personally satisfying and how to develop important professional skills, including: creating a successful resume; effective professional correspondence; appropriate business phone and email etiquette; developing interview and presentation skills; and networking.
P: Sophomore status
Fall and Spring.

## BUS ADM 297. Internship. 1-6 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. The course is repeatable for credit; may be taken 6 times for a total of 6 credits.
P: Min 2.0 GPA
Fall and Spring.

## BUS ADM 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## BUS ADM 299. 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.
BUS ADM 305. Legal Environment of Business. 3 Credits.
Laws affecting business, emphasizing the Uniform Commercial Code. Introduction to law and the legal process, contracts, agency, property, landlordtenant and real estate laws, sales and consumer protection laws, secured transactions, negotiable instruments, corporation and partnership law, and estate and bankruptcy law.
P: Sophomore status
Fall and Spring.

## BUS ADM 306. Business Law. 3 Credits.

Recommended for students planning to take the CPA exam. Builds upon basic concepts covered in Bus Adm 305 to further explore the legal implications of business transactions. Deals with federal and widely adopted uniform law. Topics include state law regulation of the corporation and other business associations, sales, agency, debtor and creditor relations, negotiable instruments and property law.
P: BUS ADM 305 and Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5
Spring.

## BUS ADM 378. Leadership Transformation. 3 Credits.

This course focuses on leadership transformation for increased effectiveness by engaging in specific skills and critical thinking necessary for authentic leadership in today's business climate.
P: None.

## BUS ADM 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs. P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
BUS ADM 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## BUS ADM 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
Fall and Spring.

## BUS ADM 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit; may be taken 12 times for a total of 12 credits.
P: Junior standing, 54 credits, 2.50 GPA
Fall and Spring.
BUS ADM 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
BUS ADM 499. 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.

## Business Analytics (BUSAN)

## Courses

BUSAN 220. Introduction to Business Statistics. 3 Credits.
The course prepares students to examine descriptive statistics, sampling and sampling distributions. Students will become proficient in analyzing statistical data and interpreting descriptive statistics results.
P: Freshman standing. REC: Freshman standing
Fall and Spring.
BUSAN 230. Spreadsheet and Information Systems. 3 Credits.
This course presents an overview of information concepts through a variety of quantitative problem-solving experiences using Microsoft Excel. Introductory business and statistical models are examined, as students identify appropriate ways to find, evaluate, and use the information for decisionmaking. The course also discusses the management of information and technology within organizational environments. Content explores the role of information and technology solutions in the management of operations and innovations.
Fall and Spring.

## BUSAN 320. Advanced Business Statistics. 3 Credits.

This is an advanced course built on BUSAN 220. It revises the contents of BUSAN 220 and prepares students to do advanced statistical analyses such as hypothesis testing, independent and paired t-tests, analysis of variance, regression, chi-square, and variance comparisons. The course will also expose students to statistical applications such as SPSS.
P: BUSAN 220
Fall Only.

## BUSAN 370. Data Science for Managers. 3 Credits.

The course helps students understand the fundamentals of using data to support their decision-making and to visually represent data. Students will develop visualization and decision models designed to effectively communicate the meaning of complex data sets in a business context. Students will also learn how Business Intelligence (BI) is used by organizations to make better business decisions, use fewer resources, and improve the bottom line. Students will learn numerous in-demand technical skills
P: Sophomore standing
Fall and Spring.

## BUSAN 435. Foundations of Strategic Information Management. 3 Credits.

Information Technology (IT) is an integral part of all organizations and plays a vital role in all functional areas such as marketing, accounting, finance, human resources, operations, and supply chain. It also serves in enabling key applications such as business intelligence, data analytics, security, internal controls, and new-product planning among others. Owing to the dynamic nature of IT, it is imperative that organizations continuously reevaluate their strategic alliance with IT. Thus a well-designed, and strategically managed IT has the potential to dramatically improve a business's competitive advantage. The course discusses the significant managerial aspects of IT's increasing impact on today's organizations, along with IT trends and their business implications, security, privacy and ethical issues.
P: BUSAN 230 or Business Analytics Emphasis
Fall and Spring.
BUSAN 436. Analysis \& Design of Business Information Systems. 3 Credits.
The competence in business information systems analysis and design (SA\&D) is critical to not only information technology professionals but also to business managers since the fit between information technology and organizational business needs is argued to be a key determinant of firm performance. Students will learn system analysis and design concepts and technologies required to develop business information systems. The emphasis is on system life cycle concepts ranging from a system's planning to its discontinuance. The course will also attempt to evaluate the ethical issues involved as well as the business reasons why some IT projects succeed while others fail.
P: BUS ADM major or minor or ACCTG major or minor and an overall minimum GPA of 2.5.
Fall Only.

## BUSAN 450. Database for Business Analytics. 3 Credits.

Data is the new oil and is a key component of powering the AI and analytics revolution. Any analytical solution and decision model system is only as good as the data it is built upon. This course provides a comprehensive introduction to managing data using database management systems (DBMS). It consists of four main parts - database design, implementation, and use - focusing on the relational database model and introducing big data technologies such as NoSQL databases, data warehousing, and data lakes. The course will also discuss how better data integration using data lakes and other big data technologies can help break data silos and create a vibrant learning organization. Course is repeatable for credit; may be taken 2 times to earn a total of 6 credits. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
Fall Only.

## BUSAN 452. Business Analytics. 3 Credits.

This course focuses on concepts pertaining to business analytics and its application in the business environment using various techniques. Upon completing this course, the student will gain knowledge of data summarization and visualization, as well as descriptive and predictive data analytics in decision-making. The course covers various topics such as data description, data visualization, regression, classification, and other analytical models. Students will also be expected to learn how to apply analytical methods to business problems through performing hands-on examples and projects over the course of the semester using statistical packages such as R. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: BUSAN 220 or MATH 260; and BUSAN 230 and Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5 Fall and Spring.

## BUSAN 453. Machine Learning for Business Analytics. 3 Credits.

Machine Learning is increasingly used in applications ranging from product recommendations and business forecasting to health care diagnosis and autonomous driving. This course is aimed at developing practical machine learning and data science skills. The course will cover different principal models used in machine learning and the types of problems to which they are typically applied. Students will learn to apply the principal models in machine learning to solve business problems. We will cover the main models from both supervised learning and unsupervised learning. Finally, we will also discuss the important question of model evaluation and selection, highlighting the biases and ethical issues inherent in machine learning. Spring.

## BUSAN 464. Data Visualization and Storytelling. 3 Credits.

This course discusses the art and science of turning data into readable graphics. Students will learn to evaluate the effectiveness of visualization based on principles from graphic design, visual art, perceptual psychology, and cognitive science. Students will also learn to think critically about each design decision, such as choice of color and choice of visual encoding. Students will create their own data visualizations, and learn to use Tableau. Finally, students will learn to tell engaging data stories that clearly depict the points that they want to make through data visualization.
P: BUSAN 220 or MATH 260; BUSAN 230 and an overall minimum GPA of 2.5
Spring.

## Community Health Education (CHE)

## Courses

CHE 310. Foundations of Community Health Education. 3 Credits.
This course introduces students to information, perspectives, and competencies necessary to promote health in community, school, workplace, and health care settings. Key concepts related to health and health education will be covered including determinants of health, health equity and various physical, mental, and environmental health conditions. The course will cover the history of the profession, role of a community health educator, and Certified Health Education Specialist competencies.
P : sophomore standing
Fall Only.
CHE 320. Methods and Strategies for Community Health Education. 3 Credits.
This course covers health education and health behavior theories, methods and strategies to plan and implement health education and health promotion programs. Students will develop an understanding of learning styles, health literacy and communication to positively impact the norms and behaviors of individuals and communities. Certified Health Education Specialist competencies will be emphasized throughout. Students will work on projects involving social marketing and development of culturally relevant health education materials.
P: CHE 310
Fall Only.
CHE 330. Program Planning and Evaluation in Community Health Education. 3 Credits.
This course actively engages students in the process of program planning and evaluation. Student teams will work to assess community needs and resources of a population of interest and plan a health education or health promotion program. Professional literature and data collection will be used in the assessment process. Development of a program evaluation will be part of the process. Responsibilities and competencies of a health education specialist will be emphasized in all phases of this project.
P: CHE 310. REC: CHE 320
Spring.
CHE 440. Capstone Seminar. 3 Credits.
This course is designed as a culminating course that will engage students in synthesizing the skills and concepts they developed throughout the program curriculum. Students will apply the profession's areas of responsibility as well as ethical standards in a Capstone Portfolio. In addition, students will 1) review selected community health topics; 2) be introduced to current issues in community health education, public health, and population health; 3) be introduced to the employment, educational, and political environments in selected occupational settings; and 4) synthesize the concepts of the community health educator (assessment, planning, implementation, evaluation and research, advocacy, communication, leadership and management, ethics and professionalism).
P: CHE 310, CHE 320, CHE 330; concurrent enrollment in CHE 450
Spring.
CHE 450. Community Health Education Field Practicum. 9 Credits.
Students engage in practical fieldwork experience as a community health educator intern to utilize skills and knowledge acquired in previous courses.
This fieldwork experience is designed to further develop skills in some, but not necessarily all, of the following areas: program planning, implementation, promotion and evaluation, oral and written communication, collaboration, and networking.
P: CHE 310, CHE 320, CHE 330; concurrent enrollment in CHE 440
Spring.

## Chemistry (CHEM)

## Courses

CHEM 108. Survey of General, Organic and Biochemistry. 3 Credits.
Chemistry and measurements; states of matter and changes of state; atoms and elements; ionic and molecular compounds; chemical reactions; solutions; acids, bases and pH ; organic nomenclature; introduction to organic functional groups, physical properties and reactions; carbohydrate structure and function; amino acids and protein structure and function; lipid structure and function; nucleic acid structure and function.
P: MATH 101 with at least a C, or WPT-MFND score $>465$ and WPT-AALG score $>525$, or ACT Math score $>24$, or SAT Math score $>590$ : and CHEM 109 or conc enrl
Spring.
CHEM 109. Survey of General, Organic, and Biochemistry Laboratory. 1 Credit.
Laboratory Course that accompanies CHEM 108.
P: CHEM 108 or concurrent enrollment; CHEM 207 or concurrent enrollment
Fall and Spring.

CHEM 168. Sustainability Chemistry. 3 Credits.
Studying how chemistry and sustainability can relate to and improve our lives and our environment is a focus of this course. Specific topics that will be covered include scientific literacy, green chemistry, climate change, pollution, recycling, chemical usage in industry, best practices in sustainability, and more.
Spring.

## CHEM 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
CHEM 207. Laboratory Safety. 1 Credit.
This course examines safety within the science laboratory with emphasis on practical application. Topics include current safety regulations, identification of hazards, chemical labeling and storage, waste management, personal protective equipment, ventilation, spill response, and biosafety.
P: BIOLOGY 201 or BIOLOGY 203 or CHEM 108, CHEM 211 or CHEM 212 or HUM BIOL 241 or conc enr
Fall and Spring.
CHEM 211. Principles of Chemistry I. 4 Credits.
Chemistry and measurement; atoms, molecules, and ions; chemical formulas, equations, and reactions; gaseous state; thermochemistry; quantum theory of the atom; electron configurations and periodicity; ionic and covalent bonding; molecular geometry and chemical bonding; and states of matter; liquids and solids.
P: MATH 104 or greater or eq or conc enr in MATH 104 or WPT-MFND score >465 and WPT-AALG score >525 and WPT-TAG score >525 \& CHEM 213 or concurrent enrollment; can't repeat until open enrollment begins.
Fall and Spring.
CHEM 212. Principles of Chemistry II. 4 Credits.
Solutions; kinetics; chemical equilibrium; acids and bases; acid-base equilibrium, solubility and complex ion formation; thermodynamics and equilibrium; electrochemistry; and nuclear chemistry.
P: MATH 104 or greater with at least a C grade or WPT-MFND score $>465$ and WPT-AALG score $>525$ and WPT-TAG score $>525$; and CHEM 211 and CHEM 213 with at least a C grade; and conc enr in CHEM 214
Fall and Spring.
CHEM 213. Principles of Chemistry I Laboratory. 1 Credit.
Laboratory Course that accompanies Chem 211.
P: CHEM 211 or concurrent enrollment; and CHEM 207 or concurrent enrollment
Fall and Spring.

## CHEM 214. Principles of Chemistry II Laboratory. 1 Credit.

Laboratory Course that accompanies Chem 212
P: CHEM 212 or concurrent enrollment; and CHEM 207 or concurrent enrollment
Fall and Spring.
CHEM 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or =2.50; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
CHEM 299. 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.
CHEM 300. Bio-Organic Chemistry. 3 Credits.
Those aspects of the field pertinent to students entering the biologically related disciplines: Basic organic chemistry, natural products and molecules important to biological systems.
P: Chem 212 \& 214 with at least a C grade or Chem 108 \& 109 with at least a C grade.
Spring.
CHEM 301. Bio-Organic Chemistry Laboratory. 1 Credit.
Laboratory course to accompany Chem 300.
P: Chem 300 or conc enr; and Chem 207 or conc enr
Spring.

CHEM 302. Organic Chemistry I. 3 Credits.
The chemistry of carbon compounds: structure, reactions, synthesis, stereochemistry, reaction mechanisms, spectroscopy, nomenclature and physical properties of both aliphatic and aromatic compounds; covers all common functional groups and natural products.
$P$ : Chem 212 and 214 with at least a C grade.
Fall and Spring.

## CHEM 303. Organic Chemistry II. 3 Credits.

The chemistry of carbon compounds: structure, reactions, synthesis, stereochemistry, reaction mechanisms, spectroscopy, nomenclature and physical properties of both aliphatic and aromatic compounds; covers all common functional groups and natural products.
P: Chem 302 with at least a C grade.
Fall and Spring.
CHEM 304. Organic Chemistry Laboratory I. 1 Credit.
Basic and intermediate synthesis, basic and intermediate instrumental techniques in organic chemistry.
P: CHEM 212 and CHEM 214 with at least a C grade; and CHEM 302 with at least a C grade or conc enrl; and CHEM 207 or conc enrl
Fall and Spring.

## CHEM 305. Organic Chemistry Laboratory II. 1 Credit.

Basic and intermediate synthesis, basic and intermediate instrumental techniques in organic chemistry.
P: Chem 303 or conc enr; and Chem 304 with at least a C grade; and Chem 207 or conc enr
Fall and Spring.
CHEM 306. Organic Chemistry Lab I \& II. 2 Credits.
Basic laboratory techniques for organic chemistry including commonly used synthetic methods, purification and characterization of reaction products.
CHEM 311. Analytical Chemistry. 4 Credits.
Theory and practice of chemical analysis. Statistics; gravemetric analysis; acid-base chemistry; precipitation, complexometric and redox tetrations; electrochemistry; spectrophotometry; atomic absorption; emission methods; separation methods (gas/liquid chromatography).
P: Chem 212 and 214 with at least a C grade; and Chem 207 or conc enr
Spring.
CHEM 320. 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: Chem 212 and 214 with at least a C grade and Physics 202 with at least a C grade and Math 203 with at least a C grade.
Fall Only.
CHEM 321. Structure of Matter. 3 Credits.
Integrated approach to the concepts of physical chemistry and modern physics: introduction to quantum theory, symmetry, atomic and molecular structure, spectroscopy, X-rays, properties of gases, liquids and solids.
P: Chem 212 and 214 with at least a C grade and Physics 202 with at least a C grade and Math 203 with at least a C grade.
Spring.
CHEM 322. Thermodynamics and Kinetics Laboratory. 1 Credit.
Laboratory course to accompany Chem 320.
P: Chem 320 or conc enr; and Chem 207 or conc enr
Fall Only.
CHEM 323. Structure of Matter Laboratory. 1 Credit.
Laboratory course to accompany Chem 321.
P: Chem 321 or conc enr or Physics 321 or conc enr.; and Env Sci 207 or conc enr or Hum Biol 207 or conc enr.
Spring.

## CHEM 324. Biophysical Chemistry. 3 Credits.

Biophysical Chemistry is a one-semester introductory to important physical chemistry principles and their relation to structure and energetics to biochemical structures. The course will also introduce techniques, equations related to certain phenomena, and data analysis and interpretation. The course is intended for chemistry majors declaring an emphasis in biochemistry.
P: CHEM 212 and 214 with at least a C grade and PHYSICS 202 with at least a C grade and MATH 203 with at least a C grade
Fall Only.
CHEM 325. Biophysical Chemistry Laboratory. 1 Credit.
Laboratory course to accompany CHEM 324.
P: CHEM 324 or conc enr and CHEM 207 or conc enr
Fall Only.

## CHEM 330. Biochemistry. 3 Credits.

The purpose of this class is to provide students an introduction to the chemistry of living organisms, focusing on three main topics: (1) a foundation of the material required for all study of biochemistry, including an understanding of the basic chemical principles affecting life; (2) knowledge of the structure and function of biological macromolecules; and (3) the metabolic processes of energy utilization in cells. Topics covered include the nature and function of the important constituents of living matter, their biosynthesis and degradation; energy transformation, and metabolic control.
P: Chem 303 with at least a C grade (or concurrent enrollment) and Biology 201/202 with at least a C grade.
Fall and Spring.
CHEM 331. Biochemistry Laboratory. 1 Credit.
Laboratory course to accompany Chem 330.
P: CHEM 207 or conc enr; CHEM 330 or conc enr; and CHEM 305
Fall and Spring.

## CHEM 355. Chemistry in the World. 3 Credits.

Focuses on chemistry of modern issues: air pollution, atmospheric ozone, global warming, energy utilization, water as a natural resource, acid rain, and nuclear energy.
P: MATH 101.
CHEM 402. Advanced Organic Chemistry. 3 Credits.
Advanced study of the structures of organic compounds, synthetic strategies, and the mechanisms of reactions will be emphasized. Topics will include molecular orbital theory, stereochemistry, linear free energy relationships, isotope effects, and natural and pharmaceutical products, among others.
P: Chem 303 with at least a $C$ grade
Fall Odd.

## CHEM 403. Advanced Organic Chemistry Laboratory. 1 Credit.

Synthesis of a natural pharmaceutical product. Learn the modern strategies and techniques involved in multi-step organic synthesis; run reactions, purify products, and use instruments to characterize products.
P: CHEM 305 with a C or better; Chem 207 with a C or better
Fall Odd.

## CHEM 410. Inorganic Chemistry. 3 Credits.

Survey of the elements including coordination and organometallic compounds. Modern bonding theories, group theory and periodic properties extended and applied to chemical systems and reactions. General acid-base theory and non-aqueous solvent systems.
P: Chem 212 and Chem 302 with at least a C grade; REC: Chem 303.
Spring Odd.

## CHEM 411. Inorganic Chemistry Laboratory. 1 Credit.

Laboratory course to accompany Chem 410.
P: Chem 410 or conc enr.; Chem 304 with at least a C grade; Env Sci 207 or conc enr of Hum Biol 207 or conc enr.; REC: Chem 305
Spring Odd.

## CHEM 413. 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 surface analysis methods.
P: Chem 311 with at least a C grade; and Chem 207 or conc enr. REC: Chem 303.
Fall Only.
CHEM 417. 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: Chem 212 and 214 with at least a C grade and Physics 202 with at least a C grade: REC: Chem 321.
Fall Odd.
CHEM 420. Polymer Chemistry. 3 Credits.
An introduction to the synthesis, characterizations, and properties of industrial polymers.
P: Chem 300 or 303 or 321 or Physics 321.
Fall Even.
CHEM 423. Polymer Chemistry Laboratory. 1 Credit.
Laboratory course to accompany CHEM 420
P: CHEM 420 or conc. enr.
Fall Even.

## CHEM 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## CHEM 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
CHEM 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.

CHEM 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## CHEM 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa > or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
CHEM 499. 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.

## Chinese (CHINESE)

## Courses

CHINESE 101. Introduction to the Chinese Language I. 4 Credits.
Elementary modern Mandarin, for students with no previous training in the language.
CHINESE 102. Introduction to the Chinese Language II. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing Chinese.
P: none;. REC: 1 yr of high school Chinese or 1 semester of college Chinese.
Spring.

## Communication (COMM)

## Courses

## COMM 102. Introduction to Communication. 3 Credits.

Communication is the means by which individuals learn about themselves and the world around them. This course is an introduction to Communication, which emphasizes the understanding of messages in various settings, including interpersonal, small group, organizational, and mass communication. Such topics as the interplay between American society and mass media are discussed.

## Fall and Spring.

## COMM 133. Fundamentals of Public Address. 3 Credits.

Examination of the principles of oral message preparation and presentation. Students will prepare and present actual public communications.
Fall and Spring.

## COMM 166. Fundamentals of Interpersonal Communication. 3 Credits.

Principles of personal interaction as a basis of communication: role of communication in interpersonal relationships; role of identity and self-concept in communication behavior; significance of information reception and evaluation in the effectiveness of communication.
Fall and Spring.

## COMM 185. Business and Media Writing. 3 Credits.

Business and Media Writing teaches students basic business and media writing skills; resumes, business proposals, memos, reports, press releases, fact sheets, and electronic communications.
Fall and Spring.

## COMM 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## COMM 205. Elements of Media. 3 Credits.

Exploring contemporary commercial media; analyzing the business and creative forces behind motion pictures, television, radio and new media; examining regulatory and ethical issues; identifying visual components of persuasive media and the communication strategies involved.
Fall and Spring.

## COMM 237. Small Group Communication. 3 Credits.

The role communication plays in small group processes; focuses on development of the special communication skills needed in the small group setting. Fall and Spring.

## COMM 290. Communication Problems and Research Methods. 3 Credits.

This course provides students with the necessary critical thinking and research skills to excel in the upper level communication curriculum. The course focuses on creating an understanding of the scientific method and learning how to properly investigate communication problems. Issues covered include how to conduct background research, interview sources, create surveys, conduct focus groups and interpret research results.
Fall and Spring.

## COMM 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## COMM 299. 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.
COMM 302. News Reporting and Writing. 3 Credits.
Researching, interviewing and writing various news stories for print and electronic media, with an emphasis on accuracy, fairness, objectivity, and ethics.
P: at least 15 credits of core supporting courses in Communication
Fall and Spring.

## COMM 304. Sports, Media, and Society. 3 Credits.

Sports are a massive part of our personal, social, and professional lives. This course navigates the often complex web of connections, issues, and relationships that characterize our relationship with sports, with a particular focus on communication and media-based issues. We will discuss the nature of fandom, the mythology of sports and how media professionals cover these issues. The course will also take a deeper look at special topics in sports, including the performance of race and gender in sports, the connection between sports and nationalism, and how we use sports as communication shorthand. This course is intended to develop your media literacy and critical thinking skills, as well as a keen appreciation of the aspects of sports that, while not often discussed in the mainstream, are vital to any professional involvement in sports education.
P: At least 15 credits in COMP SCI, INFO SCI or COMM
Fall Only.

## COMM 305. Principles of Public Relations/Corporate Communications. 3 Credits.

An overview of topics, issues, concepts, and practices of public relations/corporate communications; individual and group case work.
P : at least 15 credits of core supporting courses in Communication
Fall and Spring.

## COMM 306. Radio Broadcasting. 3 Credits.

Commercial and non-commercial radio as a communications medium and as a business enterprise: radio audiences, audience ratings, programming and program formats, news, advertising, promotion and sales. Students taking this course will participate in Radio GBX - UWGB's student radio station. $P$ : at least 15 credits of core supporting courses in Communication or instructor permission
Fall and Spring.

## COMM 307. Video Production. 3 Credits.

Exploration of various uses of television as an informative, persuasive, and entertainment medium. Combines analysis of current uses of the medium in a professional context with practical experience in planning and producing a finished product for television.
$P$ : at least 15 credits of supporting core courses in Communication
Fall and Spring.

## COMM 308. Information and Communication Technologies. 3 Credits.

This course focuses on communication and information systems and technology. This is a survey of information and communication technologies, their operations and limitations, and how the major electronic technologies are changing and affecting both the workplace and the household.
P: 15 credits of Comp Sci, Info Sci or Comm
Fall and Spring.

## COMM 309. Mass Media Advertising. 3 Credits.

TV/media/Internet advertising as a unique form of communication. Through the use of both individual and team/group projects, the demands and rigors of the strategic creative process are revealed. Legal, ethical and Internet considerations are also discussed.
$P$ : at least 15 credits of core supporting courses in Communication
Spring.

## COMM 317. How to Create Great Social Media Content. 3 Credits.

This course provides an overview of how to create great social media content. It will focus on: 1) understanding the basics of social media strategy, 2) learning how to craft great content, 3) analyzing content prior to launch, 4) successfully launching your content, and 5) evaluating social media results. P: None. REC: Junior Standing
Fall and Spring.
COMM 333. Persuasion and Argumentation. 3 Credits.
Awareness, appreciation, understanding, and skill in contemporary forms and methods of oral persuasion and argumentation.
P : at least 15 credits of supporting core courses in Communication
Spring.
COMM 335. Organizational Communication. 3 Credits.
Communication in the modern organization: communication variables in the context of organizational theory; development of a systems perspective regarding functions, structures and levels of communication in the organization; use of evaluation tools and training strategies.
P : at least 15 credits of core supporting courses in Communication
Fall Only.

## COMM 336. Theories of the Interview. 3 Credits.

Basic theory behind conducting effective interviews. Specific types of interviews are discussed, such as selection, counseling, exit, discipline, appraisal, mass media and research interviews, from both the interviewer's and the interviewee's perspective.
P : at least 15 credits of core supporting courses in Communication
Fall Only.
COMM 366. Media Planning and Selling. 3 Credits.
This course examines the processes used in connecting advertisers' messages with their target audiences. Through lecture, readings, and two case studies, students prepare and present a comprehensive media plan and a media sales package. Traditional media channels (e.g., newspapers, TV) and new media (e.g. the Internet) are included.
$P$ : at least 15 credits of core supporting courses in Communication
Spring.

## COMM 370. Health Communication Campaigns and Strategies. 3 Credits.

We will focus on communication research and theory as it relates to health communication campaigns. This is a useful class for students who are interested in understanding how communication campaigns are planned, implemented, and evaluated. This course is targeted at students that want to study a growing area in applied communication studies, or who are considering a career in the health care field. This course focuses on the important role communication plays in the delivery of effective health campaign messages.
P : at least 15 credits of core supporting courses in Communication
Fall Only.
COMM 378. Documentary Video Production. 3 Credits.
This course focuses on video production and editing techniques, with a specific focus on documentary storytelling and hands-on video experience outside of a studio setting.
P: at least 15 credits of supporting core courses in Communication
Spring.

## COMM 380. Communication Law. 3 Credits.

Freedom of the press and broadcast media, problems of gag orders, contempt, privacy, censorship, libel and slander. Overview of copyright law, the Federal Communications Act and other laws affecting communication.
P : at least 15 credits of core supporting courses in Communication
Fall and Spring.
COMM 382. Public Relations Campaigns. 3 Credits.
This course provides students with professional preparation for the writing required for a public relations career. Students will learn strategies for creating, delivering, and evaluating the many different types of P.R. writing, including social media, news releases, media kits, PSAs, magazine queries, newsletters, pitches and backgrounders.
P: at least 15 credits of core supporting courses in Communication, COMM 305
Fall and Spring.

## COMM 390. Sports Writing, Promotion, and Public Relations. 3 Credits.

This course is one of the practical components of the Sports Communication emphasis in the UWGB Communication department and is aimed at helping you develop hands-on skills in the promotion, media, and public relations branches of sports communication. In this class you will learn about the unique challenges of strategic communication in sport, from the organizational requirements of different sports communication outlets to the demands of marketing and public relations in the field as well as how to write interviews and other stories for sports media. You will also develop examples of different forms of strategic sports communication to add to your portfolio or demo reel.
P: 15 credits of Comp Sci, Info Sci or Comm
Spring.

## COMM 396. Advanced Reporting. 3 Credits.

Development of advanced-level reporting, interviewing, writing, and editing of investigative stories, in-depth articles, and copy for the new world of online journalism.
$P$ : at least 15 credits of core supporting courses in Communication, COMM 302
Fall Only.

## COMM 425. Digital Journalism. 3 Credits.

This course forms part of the Digital Fourth Estate (4e), UWGB's student news media. Digital 4e writers will learn to publish multimedia stories sourced from the UW campus and Brown County. Students will compose straight and feature news stories, learn to enhance publications with audio and video, and learn to navigate a newsroom environment. Student writers may work as a group and/or individually to serve as watchdogs on campus. Student writers will develop skills related to advanced-level reporting, conceptualizing, writing, and editing news stories suited for the digital journalism world. P: none. REC: Sophomore standing
Fall and Spring.
COMM 430. Information, Media and Society. 3 Credits.
The role of information in society, including interpersonal, mass, and institutional sources, in producing a range of effects on individuals, groups, and society as a whole; critical examination of the changing information environment in legal, economic, political, and social contexts.
P: at least 15 credits of core supporting courses in Communication or declared student in Information Sciences.
Fall and Spring.

## COMM 445. Human Communication Theory. 3 Credits.

Integration of a variety of theories to promote sensitivity to and understanding of the complexity of human communications; examines the construction of various communication theories, contexts and processes in communication.
$P$ : at least 15 credits of core supporting courses in Communication
Spring.
COMM 470. Health Communication and Technology. 3 Credits.
This course examines how technology has impacted the healthcare system and personal health management. We will focus on how people are using (and misusing) the Internet for their health needs and the resulting impact this is having on communication. More specifically, we will examine online health information sources, online health information-seeking practices, provider-patient communication, personal health management, health care consumerism, computer-mediated social support, telemedicine, privacy management, online personal health records, and the impact of social media on health information and communication.
Spring.

## COMM 474. Media Workshop. 3 Credits.

Students become part of a hybrid newsroom in order to experience the worlds of online, social media and print journalism and PR. Students will apply the skills learned in previous Journalism and PR courses: newswriting, feature writing, photojournalism, videojournalism, layout, management, editing, designing and implementing PR campaigns. Involves one-on-one work with professor and editors.
P: at least 15 credits of core supporting courses in Communication, COMM 302
Fall and Spring.

## COMM 477. Social Media Strategies. 3 Credits.

This course provides an overview of social media strategies. It will focus on the interconnections between a) historical ideas about strategy, b) networking principles, and c) contemporary research on social media. Particular emphasis is placed on evaluating and creating social strategies for various objectives.
$P$ : at least 15 credits of core supporting courses in Communication
Fall and Spring.

## COMM 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
COMM 480. Cases in Communications and Media Management. 3 Credits.
This course examines the strategies and practices of communications and media management in organizations. Students integrate their knowledge of oral, written, and visual communication to solve real-world cases.
P: at least 15 credits of core supporting courses in Communication, COMM 305
Fall and Spring.

## COMM 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
P: Jr. st.
Fall and Spring.
COMM 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: Jr. st. REC: Comm 200.

## COMM 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
COMM 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## COMM 499. 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.

## Community Sciences (COMM SCI)

## Courses

## COMM SCI 145. 21st Century Citizen. 3 Credits.

In this course students will develop their capacities to become true stakeholders in their education and in their communities. We will explore the diverse contexts impacting learning and engaged citizenship, examine relevant social problems from an interdisciplinary perspective, and identify a problem to address via a large-scale service project in our spring GPS class. Along the way, students will build leadership and communication skills, selfawareness, and the habits of mind required to get the most from your college experience.
P: Participation in the GPS (Gateways to Phoenix Success) Program
Fall Only.
COMM SCI 146. GPS Spring Seminar. 3 Credits.
This course will serve as a capstone to the GPS program first year experience, and will challenge students to apply the knowledge and skills they've gained thus far in GPS to address a real-world problem. Students will develop and implement a service learning project with their class over the course of the semester, and will continue the work to build knowledge and skills critical to personal and career success.
P: Participation in the GPS program
Spring.

## COMM SCI 148. GNSS Support Protocol. 1 Credit.

One-credit course that will give incoming veterans an introduction to what to expect in the college environment, information about how to connect with university resources and local VA services, and to develop skills to be successful in their academic work at the university.
Fall Only.

## COMM SCI 150. GPS Tools for Success. 1 Credit.

The Tools for Success course is designed to tie into the First Year Seminar Experience in impactful ways by executing the college on-ramp topics covered in your First Year Seminar. This work will support you to successfully navigate your first semester at UW-Green Bay. This one-credit course will enhance students' academic skills and personal organization.
Fall and Spring.
COMM SCI 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## COMM SCI 200. Civic Scholars Practicum. 3 Credits.

The Civic Scholars program prepares sophomore and transfer students to become civic professionals and citizen leaders through sustained interdisciplinary civic engagement and scholarship with a focus on the City of Green Bay. Through workshops in the fall semester, students will visit community organizations with specific sector focuses such as education, environment, arts, history, and more. The actual visits are preceded by learning about community partners and followed by guided reflections about the role and function of the particular organization in the greater Green Bay community and the need for its existence. The practicum prepares them for a Spring semester service internship and for completing the yearlong program with a certificate.
P: Reserved for sophomores or transfer students
Fall Only.

## COMM SCI 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.

## COMM SCI 299. 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.

## COMM SCI 301. Foundations for Social Research. 3 Credits.

An integrated examination of the nature of science, theory and statistics. Emphasizes identifying and interpreting relationships between social phenomena by applying the conceptual tools provided in the course to specific problems.
P: PSYCH 205 or MATH 260 or BUSAN 220
Fall and Spring.

## COMM SCI 493. Peer Mentor for First Year Seminars. 3 Credits.

In this course, students will work in First Year Seminar classes as peer mentors for first year students. Peer mentors will help promote the development of skills relevant to student success, will encourage student engagement with the university, and will act as a role model for first year students. Through this work, peer mentors will learn about college student development and effective practices in teaching and learning, will develop professional and interpersonal skills such as communication and leadership, and will have the opportunity to apply this knowledge in their work with first year students. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Approval of instructor
Fall Only.

## COMM SCI 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.

COMM SCI 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.

COMM SCI 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
COMM SCI 499. 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.

## Computer Science (COMP SCI)

## Courses

## COMP SCI 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## COMP SCI 201. Introduction to Computing \& Internet Technologies. 3 Credits.

Introduction to the history of computing, overview of computers, how they work, and relevant applications, especially to web site creation. Introduction to procedural programming and an emphasis on ASP.NET using Microsoft Web Development tools part of the Microsoft Visual Studio.NET programming environment, the basics of HTML, CSS, and JavaScript. This course includes both lecture and lab.
Fall and Spring.

## COMP SCI 203. Introduction to Python Programming. 3 Credits.

This course introduces the students to how to design, write and debug computer programs using python along with programming best practices and the fundamental techniques used in the development of software applications using python. Topics include data representation and storage using python data types and variables, control flow via conditionals and loops, complex data structures (e.g., lists, sets, dictionaries, and tuples) and error handling. Students will learn procedural programming using custom functions, standard libraries, modules and packages, and object-oriented programming paradigms using class, objects, methods, and attributes. This course includes both lecture and laboratory.
Fall and Spring.

## COMP SCI 207. Programming in C. 3 Credits.

A technical course in computing, algorithms, data representations, and problem solving in the C programming language. This course provides a brief introduction to the syntax of computer programming, data types and structures, fundamental control structures, algorithms, standard libraries, pointers, and the construction of function/procedure. Opportunity for extensive experience in designing, developing, and testing structured programs in C language. This course includes both lecture and laboratory
Fall and Spring.

## COMP SCI 221. Database Design \& Management. 3 Credits.

This introductory course focuses on how databases and database systems work and how they are used in various data-driven applications. The course covers relational databases, SQL, different ways of designing databases, and management of databases. The course provides hands-on experience with exercises using modern database management systems such as SQL Server and/or MySQL and includes group discussions. The course also introduces some advanced topics, including database security, data privacy, data analytics, and big data. Working knowledge of Microsoft Office suite and Windows is required for this course.
P: COMP SCI 201 with at least a C grade
Fall Only.

## COMP SCI 231. Introduction to IT Operations. 3 Credits.

This course covers the basic knowledge and skills needed to plan, design, control and monitor Information Technology services and infrastructure. Topics include the fundamentals of asset management, service provisioning, and functional operations. This course serves as an introduction to careers in the IT field.
P: COMP SCI 201 with a grade C or higher
Fall and Spring.

## COMP SCI 240. Discrete Mathematics. 3 Credits.

Study of topics in mathematics that do not depend upon the limit process, including: number systems, set theory, logic, counting techniques, matrix manipulation, recursion, mathematical induction, graph theory, recurrence relations, and finite state machines. Techniques, computations, and data representations to facilitate problem-solving by hand and by computer.
P: MATH 202 with at least a C grade
Fall and Spring.

## COMP SCI 253. Digital Logic Fundamentals. 3 Credits.

The course introduces digital electronics, the operation of logic gates, the theory of combinational logic circuits, Karnaugh mapping, encoders, decoders, multiplexers, the theory of sequential circuits, flip flops, registers, and counters.
Fall and Spring.

## COMP SCI 256. Introduction to Software Design. 3 Credits.

Students will learn a language common to software design and be introduced to software design techniques. This includes the problem statement, solution design, program testing, implementation, debugging, and final documentation.
P: COMP SCI 207 with a C or higher OR be a declared IS/ITADS major
Fall and Spring.
COMP SCI 292. Introduction to Mobile Platforms and Apps. 3 Credits.
An introduction and survey to the world of mobile computing. Each student will design, develop and produce their own app. Topics covered will include areas such as models of mobile information, GPS services, social networking, casual gaming, networked games, business apps, and information gathering -- all from the perspective of mobile platforms.
P: COMP SCI 201 and COMP SCI 256 with at least a C grade in both.
Fall Only.

## COMP SCI 293. Cloud Computing. 3 Credits.

This course introduces students to the core concepts and practical methods in designing, deploying, and using cloud computing services. Technical topics of cloud computing systems will be emphasized includes cloud infrastructures, platform architectures, cloud security strategies, cloud storage and management, virtualization, and cloud programming frameworks. The course provides students with example cloud service providers and use cases along with deployment strategies and evaluation criteria for various types of application domains.
P: COMP SCI 203 with C or higher; COMP SCI 221 with C or higher
Spring.
COMP SCI 295. Special Topics. 1-3 Credits.
Computer Science Special Topics is designed to provide access to additional learning in the area of software engineering. Topics include Algorithmic complexity, No-SQL, professional software development frameworks/libraries and additional Computer Science principles. Course is repeatable if topics differ; may be taken 3 times for a total of 9 earned credits.

## COMP SCI 297. Internship. 1-6 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit; may be taken 3 times for a total of 6 credits.
P: Cumulative GPA of 2.0 or higher
Fall and Spring.
COMP SCI 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## COMP SCI 299. 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.

## COMP SCI 316. Advanced Software Design. 3 Credits.

A continuation of COMP SCI 256, this course deals with larger projects, more complex problems, and group work. It introduces linear data structures and their implementations. It also develops the object-oriented design paradigm to include inheritance and polymorphism. This course includes both lecture and lab.
P: COMP SCI 256 with at least a C grade
Fall and Spring.
COMP SCI 339. Web Programming. 3 Credits.
This is a continuation of COMP SCI 201 and COMP SCI 293. Students will learn advanced web application development. Various languages and frameworks for client-side and server-side programming will be used. Full stack web development by browser, server, and database programming. Spring.

## COMP SCI 340. Numerical Methods for Computer Science. 3 Credits.

This course will introduce different numerical methods that can be used in practical applications. Topics will include: Introduction to a numerical analysis software, solution of linear equations, nonlinear equations, approximation of differentiation and integration, solution of differential equations, data fitting, and optimization.
Fall Only.
COMP SCI 351. Data Structures. 3 Credits.
Concepts involved in storage, retrieval, and processing data. Emphasis is on the design of software with complex data retrieval needs and on non-linear structures such as generalized lists, trees, and graphs. This course includes both lecture and lab.
P: COMP SCI 240 with a C or higher, and COMP SCI 316 with a C or higher
Fall and Spring.

## COMP SCI 352. Computer Graphics and Animation. 3 Credits.

Basic techniques of computer graphics, such as point and line plotting, clipping and windowing using the OpenGL platform. Use of graphics hardware; construction of graphics packages. Basic animation techniques.
P: COMP SCI 240 with at least a C grade. REC: COMP SCI 371
Fall Odd.
COMP SCI 353. Computer Architecture and Organization. 3 Credits.
Historical development, instruction set architecture, assembly language, procedure call protocols, memory, cache, and bus organizations, comparison of processor architectures, I/O systems.
P: COMP SCI 253 with a C or higher.
Fall and Spring.

## COMP SCI 357. Theory of Programming Languages. 3 Credits.

Comparison of several common languages and discussion of advantages and disadvantages of compiling and interpreting. Discussion of language design and syntax, data types, variables, constants, binding and scope of a variable and data handling procedure.
P: COMP SCI 316 with at least a C grade.
Fall Only.

## COMP SCI 358. Data Communication and Computer Networks. 3 Credits.

Transmission media, analog and digital signals, modulation, compression, error detection methods, security and encryption protocols, Ethernet standards, TCP/IP protocols, routing algorithms, Internet and steraming applications.
P: COMP SCI 231 with at least a C grade, and COMP SCI 256 with at least a C grade
Spring.

## COMP SCI 361. Information Assurance and Security. 3 Credits.

An exploration of the fundamentals of information assurance and security (IAS). The course will introduce the underlying concepts of IAS in context of today's society. It will explore the security \& ethical issues in information and computing from the perspective of today's computing world. It will discuss the appropriate remedies and defense strategies in the wake of today's security threats and attacks. Class topics will focus on physical security, cyber security, network security and software security through lectures and hands on experiments. This course will be of interest to students, who wish to obtain an understanding of the basic principles and practices in IAS. It will cover the fundamental concepts in IAS necessary for understanding the threats to security as well as various defenses against those threats.
P: COMP SCI 358 with at least a C grade.
Fall Only.

## COMP SCI 368. Compilers. 3 Credits.

The course introduces the theory and practice of compiler design. It covers the theoretical concepts of regular expressions and context-free grammar, scanning and parsing, semantic analysis, intermediate representations, and code generation, code transformation and optimization, and runtime systems.
Spring.

## COMP SCI 371. Advanced Object-Oriented Design. 3 Credits.

Advanced object oriented design techniques in $\mathrm{C}_{++}$, including basic language elements (functions, controls, decision making etc), collection classes, class design and class relationships, class derivation, abstract classes, interfaces, static class members, object construction and destruction, inheritance and polymorphism. Additional topics also cover advanced C/C++ concepts such as pointers and pointer arithmetic, vectors, dynamic memory management, memory leaks, exception handling and operator overloading, templates and standard template library (STL). This course includes both lecture and lab.
P: COMP SCI 316 with at least a C grade.
Fall and Spring.

## COMP SCI 372. Software Engineering. 3 Credits.

Design and programming techniques for large and complex data-driven projects, using C++. Design based on Design Patterns. Use of Software
Engineering metrics and formal methodologies. Fundamentals of component-based software development and software deployment techniques.
P: COMP SCI 221 and COMP SCI 371 with at least a C grade for both
Spring.

## COMP SCI 450. Theory of Algorithms. 3 Credits.

Design, analysis and comparison of algorithms; divide and conquer techniques, greedy method, dynamic programming and smart searching. Applications to optimization with constraints and decision problems. Theory of computability including examples of NP-complete problems such as the "traveling salesman" problem.
P: COMP SCI 351 with at least a C grade, and MATH 202 with at least a C grade
Spring.

## COMP SCI 451. Database Systems and Big Data Processing. 3 Credits.

This course covers advanced relational database concepts, data warehousing, and distributed database management systems. It introduces students to unstructured data and NoSQL databases and discusses the basics of real-time storage and processing of massive datasets using Hadoop ecosystems. The course includes hands-on exercises with Hadoop ecosystem and SQL Server.
P: COMP SCI 221 with at least a C grade
Spring.

## COMP SCI 452. Operating Systems Using Linux. 3 Credits.

Methods and philosophies behind management of computing resources, including: memory management, process management, scheduling, process signaling, process synchronization, mutual exclusion; interprocess communication, introduction to the Linux Operating System and environment, shell scripting, C programming, process management, and message passing.
P: COMP SCI 207 with at least a C grade, and COMP SCI 351 with at least a C grade
Spring.

## COMP SCI 464. Artificial Intelligence. 3 Credits.

Introductions to the fundamental types of Artificial Intelligence (AI) and their practical applications, Problem Solving by Searching, Adversarial Search, Constraint Satisfaction Problem, Neural Networks, Machine Learning, Decision Trees, Computer Vision, Reinforcement Learning, Implications of the use of AI.
P: COMP SCI 203 with at least a C grade, COMP SCI 351 with at least a $C$ grade, and MATH 320 with at least a C grade
Fall Only.

## COMP SCI 465. Machine Learning. 3 Credits.

This course introduces students to the theoretical concepts of machine learning and its applications. Students will learn about how to apply the unsupervised and supervised algorithms as major models in machine learning for various types of application domains. The course provides students with hands-on experience with machine learning software and tools.
Spring.

## COMP SCI 471. Software Security. 3 Credits.

While different types of software play a major role in providing security, they are also a major source of security problems. Thus, the demand for secure and dependable software systems is acute due to the increasing use of cyber-physical systems. This course will introduce the students with the foundations of software security, important software vulnerabilities and attack vectors that exploit them. The list of topics will includes software bugs, flaws, and vulnerabilities, attack patterns, attack vectors, threat modelling, software design security, operating system security, privilege escalation problem, common software vulnerabilities (e.g., buffer overflow, shellshock, format string), OWASP top 10, SQL injection attack, cross site scripting (XSS), code-review and secure coding practices.
Spring.

## COMP SCI 472. Network Security. 3 Credits.

The goal of this course is to provide a technical introduction to data networks and network security. The Key concepts and technologies in data networks will be introduced, including layered architectures and topologies. The main elements in information technology networks will be detailed, including routers, switches, gateways, servers, workstations and storage devices. It will be followed by an introduction to network level attacks and various defense mechanisms. Students will learn to mount attacks and defend against them using a variety of software tools, monitoring tools and protocols. Finally, different network security topics will be covered, including encryption, authentication, firewalls and intrusion detection, security management tools and threat scenarios, security policies, legal and ethical issues in cyber and computer crimes.
Fall Only.
COMP SCI 474. Game Engines. 3 Credits.
This course provides students with an introduction to the theory and practice of video game programming. Students will participate in individual hands-on lab exercises, and also work together like a real game development team to design and build their own functional game using an existing game engine (e.g. Unity, Ogre).

P: COMP SCI 256 with at least a C grade.
Spring Odd.

## COMP SCI 475. Introduction to Cryptography. 3 Credits.

This course introduces students to the underlying principles and mathematical foundations of cryptography. The course provides a brief introduction to classical and modern cryptography approaches includes symmetric and a symmetric cryptography, encryption, message authentication, hashing and public-key cryptography. Students will learn about cryptographic protocols and their applications to computer security.
Spring.

## COMP SCI 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## COMP SCI 490. Capstone Essay in Computer Science. 3 Credits.

A project course in which a student does reading in computer science journals and produces a major research paper.
P: COMP SCI 361 with at least a C grade, and COMP SCI 464 or COMP SCI 465 with at least a $C$ grade
Fall Only.

## COMP SCI 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.

## COMP SCI 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

COMP SCI 497. Internship. 3 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings.
P: jr st.
Fall Only.

## COMP SCI 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
COMP SCI 499. 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.

## Design Arts (DESIGN)

## Courses

## DESIGN 131. Introduction to Design and Culture. 3 Credits.

The history of the relationship between the consumer, manufacturing and the role design plays in the development of products and other forms of design that impact the economic, environmental and social spheres of contemporary life.
Spring.

## DESIGN 231. Graphic Design Studio I. 3 Credits.

Problem-solving techniques in graphic communication; development of visual, verbal and project management skills applied in graphic design.
Development of design and technological skills using digital tools.
P: Art 107 and Design 131 with at least a C grade; REC: Art 105 or Art 243
Fall and Spring.
DESIGN 236. Environmental Design Studio I. 3 Credits.
Introduces use of creative problem solving techniques in defining, analyzing, and solving problems in the built environment at the scale of the individual.
Emphasizes basic graphic and verbal presentation techniques and relationships between form, the natural environment, people, and function.
P: ART 105, UR RE ST 100
Fall Only.

## DESIGN 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or =2.50; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## DESIGN 332. Graphic Design Studio II. 3 Credits.

Project based problem-solving techniques in graphic communication: expansion of design and technological skills. Intermediate and advanced design techniques using digital design tools.
P: Design 231 with at least a C grade
Fall and Spring.

## DESIGN 350. Typography. 3 Credits.

Typography is an introduction to the art of visual communication: the visual realization of a most basic element of communication - the word. The history of typographic forms, principles of composition, and the expressive potential of type will be explored through reading, research, exercises, and design production. Sequential studies will follow the design process: problem-solving through exploration, experimentation, selection, critique, and refinement. Effectiveness of typographic design will be evaluated in terms of legibility, readability, and expression.
P: ART 107 and DESIGN 231
Fall and Spring.

## DESIGN 431. Graphic Design Studio III. 3 Credits.

Advanced methods in design research, problem-solving, design theory and technology use applied in graphic design and visual communications. Perspectives on portfolio development and presentation. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: DESIGN 332 with at least a C grade.
Fall Only.

## DESIGN 433. Advanced Studio. 3 Credits.

Applying concepts and skills in advanced communications projects such as web design and epublication, filmmaking and storytelling. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
$P$ : Design 332 with at least a $C$ grade or with consent of instructor.
Fall and Spring.
DESIGN 435. Design Arts Publication Workshop. 3 Credits.
A comprehensive experience in the design and production of a magazine format publication from the early stages of design through to the finished printed product. Combines conventional design skills developed in the graphic communications studios and use of desktop publishing technology. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: jr st and DESIGN 332 with at least a B grade
Fall and Spring.
DESIGN 437. Environmental Design Studio II. 3 Credits.
Analysis and design of group spaces, such as houses, classrooms, waiting rooms and other spaces intended for occupancy by groups of people.
P: DESIGN 236
Spring.

## DESIGN 438. Environmental Design Studio III. 3 Credits.

Projects at the urban scale: design teams analyze physical, social, economic, historical, and administrative aspects of specific problems. Students formulate urban design programs and produce policies, plans, and designs.
P: DESIGN 437
Fall Only.

## DESIGN 439. Environmental Design Studio IV. 3 Credits.

Each student proposes, designs and executes a design/research project of an elected topic. Individual projects are acceptable in some instances; projects by design teams are encouraged.
P: DESIGN 438
Spring.

## DESIGN 475. Professional Practice Capstone. 3 Credits.

The design professional practice capstone is a lecture/studio and critique class that provides an opportunity for design majors in their last year to develop a capstone project and professional portfolio. The capstone project can consist of independent research or a client work design practicum, and includes a public presentation of the work. In addition, students will develop and refine a body of design work that constitutes a professional graphic design portfolio. The course assignments will give students guidance in improving their current student portfolio pieces, developing new portfolio pieces, and presenting their work, and themselves, to prospective employers in a compelling way. There will be design school graduate guest speakrs who are working as professional designers. They will share their portfolio and job search strategies, and interviewing experiences. The learning environment will consist of guidance with client or independent design work, one-on-one tutorials, small group sessions, class presentations and critiques.
P: DESIGN 350, DESIGN 431; one upper level design studio (choose from DESIGN 433, DESIGN 437, DESIGN 438, or DESIGN 439)
Spring.
DESIGN 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
DESIGN 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.

DESIGN 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

## DESIGN 497. Internship. 1-12 Credits.

Instruction and experience in a professional environment where students work in any aspect of the field appropriate to their academic preparation and career goals under professional and faculty supervision. Course is repeatable for credit. No more than 3 credits may be used to meet requirements for a major or minor.
P: jr st and 3.0 gpa in major emphasis (dept will monitor gpa req).
Fall and Spring.

## Democracy and Justice Studies (DJS)

## Courses

DJS 101. Introduction to Democracy and Justice Studies. 3 Credits.
This team-taught course will introduce students to a variety of theories about democracy and justice and offer examples of those who have attempted to put democracy and justice into practice, as well as the opportunity to apply these theories and examples in a high-impact experience.
Fall and Spring.

## DJS 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall and Spring.

## DJS 200. Mentoring for Equity and Inclusion. 3 Credits.

Students will serve as mentors for Green Bay high school students participating in the Federal TRIO Upward Bound program. Mentors will help promote the development of skills critical to academic success, will encourage students to aspire to college, will help overcome barriers to college attainment, and will act as a role model and resource for the underrepresented students served by TRIO programs. A critical component of mentoring will involve learning about the barriers that have historically limited access to college, including low income, racism, and sexism. Mentors will work with local TRIO students at least four hours per week for twelve weeks and will provide mentoring as well as tutoring support.
Fall and Spring.

## DJS 204. Freedom and Social Control. 3 Credits.

Explores definitions, concepts and theories used to explain and understand central features of social power. Themes include the struggle for social justice, the history of punishment in Western society, and the legal and extralegal management and disciplining of individuals and groups.
Fall and Spring.
DJS 221. Law and Equality in Historical Perspective. 3 Credits.
Americans hold equality to be one of the central principles of our democracy. Our Declaration of Independence articulates the ideal that "all men are created equal." And our courts are intended to embody the principle that justice is blind - all are to be equal before the law. At the same time, our nation has embraced profound legal inequalities from the moment of its inception - most conspicuously in the law of slavery, but also in the legal regimes that governed the status of women, immigrants, wage earners, Native Americans, and others. This course examines the ideal of legal equality in historical perspective, beginning with the colonial era and ending in the present day. In units on the law of personal status, the impact of the Fourteenth Amendment, ideals of citizenship and belonging, and modern civil rights, we will investigate how Americans from the colonial era to the modern era have understood their legal rights and obligations to one another. We will investigate transformations in the legal meaning of citizenship and civil rights over time and consider the terms in which we uphold "equality" in our own historical moment.
Spring.

## DJS 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## DJS 299. 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.
DJS 303. Criminal Justice Process. 3 Credits.
A study of the components, relations, and processes of U.S. criminal justice. The criminal justice system is theoretically linked to larger social arrangements, including class and race-ethnic stratification. Ethical problems, such as group disparities in arrest and sentencing, are given special attention.
P: Pol Sci 101 and Sociol 101
Fall Only.

DJS 320. Constitutional Law. 3 Credits.
This course examines the development of constitutional law across a variety of issue areas in the United States Supreme Court, focusing on civil liberties and civil rights. It is taught using the case law method, which consists of reading judicial opinions. In addition to learning about our individual freedoms and rights, we will identify, analyze, and evaluate the legal questions and legal arguments raised in Supreme Court cases.
P: POL SCI 101
Fall Only.

## DJS 325. Law and Society. 3 Credits.

Explores how the courts can either promote or inhibit progressive social, political, and economic changes in contemporary American society. There is a great deal of emphasis placed on how to use theory to better understand the relationship between law and society.
P: History 206 or Pol Sci 100 or 101 or Sociol 101
Spring.

## DJS 330. Prison and Society. 3 Credits.

Prison and Society is an historical-comparative and critical social scientific look at the institutions, relations, and dynamics of correctional systems past, present, and future. Correctional systems (domestic and foreign) are theoretically linked to other societal arrangements, such as social class and race relations. Ethics and theories of justice are also considered.
Spring.

## DJS 348. Gender and the Law. 3 Credits.

The changing legal status of women and LGBTQ+ people in relationship to other social forces; major historical landmarks in the development of their legal rights and current status in such areas as property rights, family law and employment opportunity; legal tools in the struggle for equality.
P : sophomore standing
Fall Even.
DJS 361. Historical Perspectives on American Democracy. 3 Credits.
Examination of historical thinking in scholarly work and public life and study of the making of modern American freedom, equality and democracy, past and present.
Fall Only.

## DJS 362. Power and Change in America. 3 Credits.

Study of the dynamic relations between political economy and social structure and the formation and impact of social movements, politics and ideologies in modern America.
P: Pol Sci 101 or Sociol 202.
Spring Odd.

## DJS 363. Topics in Democracy and Justice. 3 Credits.

Explores a single theme pertaining to democracy and justice from an interdisciplinary perspective. Variable content. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
REC: DJS 101
Fall and Spring.

## DJS 400. Mentoring for Equity and Inclusion. 3 Credits.

Students will serve as mentors for Green Bay high school students participating in the Federal TRIO Upward Bound program. Mentors will help promote the development of skills critical to academic success, will encourage students to aspire to college, will help overcome barriers to college attainment, and will act as a role model and resource for the underrepresented students served by TRIO programs. A critical component of mentoring will involve learning about the barriers that have historically limited access to college, including low income, racism, and sexism. Mentors will work with local TRIO students at least four hours per week for twelve weeks and will provide mentoring as well as tutoring support. 400 Level students will complete an additional substantiv project.
P: DJS 101
Fall and Spring.

## DJS 461. Social and Political Criticism. 3 Credits.

Operating as a seminar, we examine the role of the American social critic and the practice of social criticism on the political left, right and center. Then, operating as a writing workshop, we compose pieces of political, social and cultural criticism for possible publication.
P: DJS 360 or 361 or Sociol 302 or 307.
Spring.
DJS 470. Senior Seminar in Democracy and Justice Studies. 3 Credits.
Rigorous analysis of an important social change issue or of the work of an important social change theorist. This capstone includes high impact experiences such as community-based learning, collaborative assignments, or undergraduate research. Course is not repeatable for credit.
P: Junior Status
Fall and Spring.
DJS 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## DJS 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.

DJS 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

## DJS 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## DJS 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## DJS 499. 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.

## Economics (ECON)

## Courses

ECON 102. Economics of the Modern World. 3 Credits.
An introduction to the study of economics that examines economic systems, global interdependence, and provides an orientation to economic concepts. Among the topics included are competitiveness of markets, measures of economic output, structure of the U.S. financial system, and global trade, as well as types of failure within economic systems, social equity and economic justice. Emphasis is placed upon problems, current issues, and the rationale for economic policy.
Fall and Spring.
ECON 202. Macro Economic Analysis. 3 Credits.
Introduction to the behavior of our economy in the aggregate, focusing upon the process by which the economy achieves a certain level of output and employment.
P: None. REC: ECON 102
Fall and Spring.

## ECON 203. Micro Economic Analysis. 3 Credits.

The decision-making processes of individuals and business firms associated with the determination of what products will be produced, how they will be produced, and what prices specific goods and services will command.
P: None. REC: ECON 102
Fall and Spring.
ECON 208. Economics WTCS Bridge. 3 Credits.
An examination of the decision-making processes of individuals and business firms associated with the determination of what products will be produced, how they will be produced, and what prices specific goods and services will command. This examination leads into the behavior of our economy in aggregate, focusing upon processes by which the economy measures, attains, and influences overall output, employment, and prices.
P: ECON 209
Fall and Spring.
ECON 209. WTCS Transfer Credit. 3 Credits.
This course is a transfer destination course for WTCS 10-809-195 and is a requirement to enroll into the ECON 208 Economics WTCS Bridge course. Fall and Spring.

ECON 210. Quantitative Methods for Economics and Business. 3 Credits.
Economists and businesses utilize quantitative techniques to both express abstract concepts and to bring such concepts to real life through application. Logically consistent models are constructed using mathematical tools. This course is introductory. Its purpose is to introduce students to the application of quantitative methods and develop their skills in the usage of such methods. Topics will range from basic mathematical principles to specific subcomponents of more advanced mathematics courses, topics having application to economic optimization problems, calculation of total values, marginal analysis, and present/future values for economic decision making.
P : University Math competency
Fall Only.

## ECON 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.

## ECON 299. 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.

## ECON 302. Intermediate Macro Economic Theory. 3 Credits.

Theories of national income distribution as a basis for an examination of policy proposals to deal with inflation, unemployment, economic fluctuations and economic growth at national and international levels. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ECON 202.
Fall Only.

## ECON 303. Intermediate Micro Economic Theory. 3 Credits.

Theories used in explaining the behavior of consumers and producers in choices relating to the production, exchange and distribution of output. P: ECON 203.
Spring.

## ECON 305. Environmental Economics. 3 Credits.

Examines 1) the economic rationale for policy, 2) the various types of policy approaches used, and 3) alternative policy options for managing the development and sustainable use of natural resources (broadly defined to include environmental resources). Particular attention is paid to the longer time horizon required for sustainability and maintenance of quality ecosystems, a necessary condition, or precursor, to having a dynamic and vibrant economic system over time.
P: ECON 102 or ECON 202 or ECON 203
Fall Only.

## ECON 310. Introduction to Econometrics. 3 Credits.

An introduction to econometric techniques in the analysis of economic phenomena that incorporates the use of mathematical and statistical tools.
P: ECON 202 or ECON 203; ECON 210 or MATH 202; and BUSAN 220 or COMM SCI 205 or MATH 260
Spring.

## ECON 330. Money, Banking and Financial Markets. 3 Credits.

Analysis of money as an economic institution, the organizational structure of the commercial and central banking system, and its functioning in the U.S.; monetary theory and policy in the national and international setting. The course will also examine key financial markets such as the bond, stock, and foreign exchange markets. In addition, the course will provide an introduction to the role of other key financial institutions such as insurance companies, securities firms, and government-sponsored financial enterprises. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ECON 102 or ECON 202 (strongly preferred) or ECON 203, and overall GPA of 2.5 or higher
Fall and Spring.

## ECON 340. Economics of Land Use. 3 Credits.

Economic relationships between humans and land. Principles governing land use and conservation and the institutional arrangements of this basic resource. Application of principles in policy-making in land valuation, taxation and zoning in the context of regional economic development.
Spring.
ECON 403. International Economics and Finance. 3 Credits.
Theory and concepts of international trade and finance; contemporary conditions and problems in international economic relations.
P: ECON 202 and ECON 203 and jr st.
Spring.

ECON 409. Public Finance and Fiscal Policy. 3 Credits.
Effects of government spending and taxation on resource allocation, incomes, prices and employment. Includes consideration of the uses and effects of fiscal policy.
P: ECON 203
Fall Only.
ECON 453. Cost Benefit Analysis. 3 Credits.
Application of tools and concepts in current economic decision making, with special emphasis upon Natural Resource management, environmental problems, market failure, and public policy approaches.
P: Completion of 53 credits (Junior status) or permission of instructor. REC: ECON 102, ECON 202, or ECON 203
Spring.

## ECON 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## ECON 485. Managerial Economics. 3 Credits.

Applications of the basic theoretical tools of micro- and macro-economic analysis to the problems of business management, including such topics as demand, production, costs, pricing and forecasting as well as current economic issues such as environmental policies and regulations.
P: ECON 202 and ECON 203
Fall Only.
ECON 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
ECON 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
Fall and Spring.
ECON 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
ECON 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
ECON 499. 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.

## Education (EDUC)

## Courses

## EDUC 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## EDUC 203. Environmental Education in K-12 Schools. 2 Credits.

Philosophies, teaching/learning processes, and resources for environmental education. Focus on hands-on/minds-on activities and multidisciplinary environmental education theory and practice; examination of ways to apply learning to future teaching roles in and out of the classroom.
P: Adm to teacher educ and Educ 361
Fall and Spring.

## EDUC 206. Culturally Responsive Teaching and Learning. 3 Credits.

Overview of causes, effects of racism, sexism, and other systems of oppression and advantage in U.S. society and its institutions; study of Wisconsin First Nations' histories, cultures, sovereignty, and contemporary issues; examination of multiple racial, cultural communities through lens of education; and application of culturally responsive perspectives in future educational practice.
Fall and Spring.
EDUC 208. Concepts, Issues, and Field Experience in Education. 3 Credits.
This course teaches the practical skills and dispositions needed to effectively work with children, teachers, staff and administrators in a K-12 setting. Through extensive field work, students learn the necessary behaviors needed to develop successful relationships with 6th through 12th graders, and experience early classroom involvement and individual interactions. This course is designed to introduce new and informed ways of thinking about teaching and learning. The class requires 35 hours of service in area public schools, reliable transportation needed.
P: Caregiver background check and TB test required
Fall and Spring.

## EDUC 209. Phuture Phoenix Service Learning. 1-3 Credits.

This course teaches the practical skills and dispositions needed to effectively work with children, teachers, staff and administration in a K-12 setting. Through extensive field work, students learn the necessary behaviors needed to develop successful relationships with 6th through 12th graders, and experience early classroom involvement and individual interactions. This course is designed as a continuation of EDUC 208; Phuture Phoenix Field Experience and will expand the student's way of thinking about teaching and learning. Students will participate in 1,2 or 3 components of the overall experience which will define the credit hours earned. Course is repeatable for credit; may be taken 6 times for a total of 6 credits.
P: EDUC 208, Phuture Phoenix Field Experience and instructor approval; Caregiver background check and TB test required
Fall and Spring.

## EDUC 210. Foundations of Literacy. 3 Credits.

This course is to familiarize students with the foundational components of language and literacy development. Students will learn about language development in children from birth through becoming proficient readers. The course content is aligned with the objectives of the Foundations of Reading Test, and are supported by historical and current research in the area of reading development. Strong focus is given to the areas of phonological and phonemic awareness, phonics development and instruction, developing fluency, vocabulary development, and comprehension of literary and expository texts.
Fall and Spring.

## EDUC 281. Conceptual Foundations of Elementary Mathematics I. 3 Credits.

Foundations of mathematics, particularly those concepts common to the mathematics curriculum of elementary schools. Explores the processes of abstraction, symbolic representation, notational manipulation and modeling in all arithmetic contexts; examines non-arithmetic topics such as geometry, probability, statistics, algebra, and programming concepts.
Fall and Spring.

## EDUC 282. Conceptual Foundations of Elementary Mathematics II. 3 Credits.

Foundations of mathematics, particularly those concepts common to the mathematics curriculum of elementary schools. Explores the processes of abstraction, symbolic representation, notational manipulation and modeling in all arithmetic contexts; examines non-arithmetic topics such as geometry, probability, statistics, algebra, and programming concepts. May not be taken on a pass/no credit basis.
P: Full admission to the Education program, EDUC 281 (or concurrent) and concurrent enrollment with EDUC 324
Fall and Spring.

## EDUC 284. Fundamentals of Algebra, Geometry and Measurement for Teaching. 3 Credits.

This course is designed for prospective teachers seeking K-9 licensure. Content strands include expressions and equations, algebra and functions. Algebra and functions topics include the concepts of variable and function, algebraic thinking, linear, polynomial, rational, and exponential functions, mathematical models, rates of change, and multiple representations of relations. We will also explore strands in geometry and measurement, data analysis and statistics. Topics from these strands include: properties of geometric figures, geometric measurement (length, area, volume), congruence and similarity, transformations; and descriptive statistics. Aligned with state and national standards, this course will emphasize problem solving,
communication, reasoning, and representation in mathematics.
Fall and Spring.
EDUC 290. Introduction to Educational Inquiry. 3 Credits.
An intensive exploration of educational theories, teaching methodologies, and other critical practices required to be an effective educator. This course is accompanied by a field practicum course, EDUC 291.
P: Departmental Approval required; concurrent enrollment with EDUC 291; and caregiver background check and TB test required
Fall and Spring.
EDUC 291. Educational Inquiry Field Practicum. 3 Credits.
This course provides an opportunity to extend theoretical learning by examining and implementing it in the field practicum. This course is accompanied by a lecture course, EDUC 290.
P: Departmental Approval required; concurrent enrollment with EDUC 290; caregiver background check and TB test required.
Fall and Spring.
EDUC 295. Special Topics. 1-3 Credits.
Course is repeatable for credit if topics differ.

EDUC 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## EDUC 299. 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 302. Teaching Social Studies in Elementary and Middle Schools. 3 Credits.
Addresses social studies standards, assessments, curriculum content, and instructional strategies including concepts, classroom environment, scope and sequence and other forces influencing the social studies program.
P: adm to teacher educ and Educ 361.
Fall and Spring.
EDUC 304. Teaching Music in the Elementary and Middle Schools. 3 Credits.
Identification of children's musical needs; materials and methods to assist classroom teachers in meeting these needs; includes practical experience with basic elements of music for the classroom teacher's competency and self-confidence.
P: adm to teacher educ and Educ 361.
Fall and Spring.
EDUC 307. Teaching Reading in the Elementary and Middle Schools. 3 Credits.
Teaching methods in developmental reading: nature of the reading process, reading readiness, vocabulary, comprehension and study-skills development. Techniques for diagnosis and instruction of diverse learners.
P: Admission to teacher education and EDUC 361 and EDUC 340 (or concurrent enrollment); Concurrent enrollment with EDUC 309 and 351
Fall and Spring.
EDUC 309. Teaching Language Arts in the Elementary and Middle Schools. 3 Credits.
Develops a language arts model, rationale, basic processes and skills and assessment procedures for the language arts classroom. Field experience required.
P: Admission to teacher education and EDUC 361 and EDUC 340 (or concurrent enrollment); Concurrent enrollment with EDUC 307 and EDUC 351
Fall and Spring.
EDUC 310. Teaching Communication Arts in the Middle and Secondary Schools. 3 Credits.
Theoretical and practical considerations in teaching communication arts. Development of a communication arts model, rationale, basic processes and skills, and assessment procedures for the communications arts classroom.
P: adm to teacher educ and Educ 361 REC: concurrent enrollment in EDUC 351
Fall Only.
EDUC 311. Teaching World Languages. 3 Credits.
Principles and methods of teaching foreign languages to students of all ages; evaluation of texts and other materials; simulation of planning for one semester's teaching.
P: adm to teacher educ and EDUC 361 REC: concurrent enrollment with EDUC 351
Spring Even.
EDUC 312. Teaching Social Studies in the Middle and Secondary Schools. 3 Credits.
Addresses social studies standards, assessments, curriculum content, and instructional strategies including concepts, classroom environment, scope and sequence and other forces influencing the social studies program.
P: adm to teacher educ and Educ 361 REC: concurrent enrollment with EDUC 351
Spring.

## EDUC 313. Teaching Mathematics in Middle and Secondary Schools. 3 Credits.

Principles, methods and materials for teaching mathematics and computer science; development of mathematical concepts and skills, selection and use of materials, motivation, lesson and unit planning and evaluation.
P: adm to teacher educ and Educ 361 REC: concurrent enrollment with EDUC 351
Fall Only.
EDUC 314. Teaching Science in Middle and Secondary Schools. 3 Credits.
The nature of middle and high school science curricula, recent innovations in science teaching, classroom teaching techniques, and evaluation.
P: adm to teacher educ and Educ 361 REC: concurrent enrollment with EDUC 351
Fall Only.

EDUC 315. 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: none. REC: HUM STUD 160
Fall Only.
EDUC 316. Teaching Art in the Middle and Secondary Schools. 3 Credits.
Methodology, procedures and strategies for teaching art; motivation techniques, preparation of art lessons and lesson plans, evaluation of art learning experiences; creativity, visual awareness and perception techniques; curriculum development in art.
P: adm to teacher educ; REC: Educ 361.
EDUC 317. Teaching Music in the Middle and Secondary Schools. 3 Credits.
Philosophical and curricular issues in secondary school music; review of secondary school materials and methodologies; developing rehearsal
objectives for a performance-oriented music curriculum.
P: adm to teacher educ; REC: Educ 361.
Fall Odd.

## EDUC 319. 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: Admission to Education minor or Candidacy Status
Spring.
EDUC 324. Teaching Mathematics in the Elementary and Middle Schools. 3 Credits.
Educational research and practices related to methods, materials, evaluation techniques; mathematics curriculum development, implementation and evaluation, teaching mathematical concepts, facts, skills, problem-solving, use of calculators and computers; error patterns and remediation.
P: adm to teacher educ; EDUC 361 or EDUC 363; concurrent enrollment with EDUC 282
Fall and Spring.
EDUC 325. Teaching Science in the Elementary and Middle Schools. 3 Credits.
Teaching methods, materials, evaluation techniques, curriculum development, implementation and evaluation in elementary and middle school science concepts, processes and problem-solving; the nature of science, the role of science standard in instruction.
P: adm to teacher educ and Educ 361.
Fall and Spring.
EDUC 326. Music, Movement and Core Arts Pedagogy. 3 Credits.
Principles and methods of integrating music, movement and arts instruction with other core subjects in the Elementary and Middle Schools; includes practical experience with basic elements for the classroom teacher's competency and self-confidence.
P: Admission to teacher education and EDUC 361
Fall and Spring.
EDUC 327. Supporting Multilingual Learners in the PK-12 Classroom. 3 Credits.
This course examines issues that affect multilingual learners in schools. Students will develop knowledge of language and strategies necessary for effective teaching of multilingual learners in mainstream K-12 classes. Students will also explore factors that contribute to the educational experiences of multilingual learners by examining policy, programming, and instruction.
P: EDUC 206
Fall and Spring.

## EDUC 328. Disciplinary Language and Literacy. 3 Credits.

This course uses a systemic functional linguistics perspective to prepare teachers to attend to disciplinary language and literacy within content instruction. Students also study English Language Development standards, gain familiarity with formative and summative English language proficiency assessments in K-12 settings, and learn strategies for language-focused instruction within content-based context.
REC: EDUC 327
Spring.

## EDUC 333. Curriculum \& Assessment. 3 Credits.

Overview of all developmental and instructional assessment methods, curriculum and instructional planning based on assessments.
P: Admission to Education or candidacy status required; TB test and criminal background check OR admission to the Organizational Leadership major Fall and Spring.

EDUC 334. Teaching General Music in the Elementary and Middle Schools. 3 Credits.
Philosophical and learning theories of music education. Children's developmental and music needs; curriculum development; traditional and contemporary methods and selection of appropriate literature is emphasized.
P: adm to teacher educ and Educ 361 and Music 254
Fall Even.

EDUC 340. Supporting Learning and Behavior in the Classroom. 3 Credits.
Course provides pre-service teachers with an understanding of how students learn in educational contexts. Learning theories reviewed, \& learning strategies to enhance learning and prevent/manage behaviors are introduced and applied in direct interaction with a learner. Course may be repeated 2 times for a total of 6 credits.
Fall and Spring.
EDUC 342. Teaching Methods for Diverse Learners. 2 Credits.
A study of instructional methods and materials for teaching diverse learners.
P: adm to teacher educ and Educ 361.
Fall Odd.
EDUC 343. 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: adm to teacher educ and Educ 361.
Fall Odd.
EDUC 345. The Exceptional Child in Regular Education. 3 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 : adm to teacher educ
Fall and Spring.
EDUC 347. 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: adm to teacher educ and Educ 361.
EDUC 350. Field Experience in Teaching Methods. 1 Credit.
Contact hours for direct experience with school age children/youth in an educational setting, focusing on content areas identified by education faculty, school faculty and other educators.
P: admission to teacher educ. REC: concurrent enrollment in EDUC 310, 311, 312, 313, 314, 315, 316, or 317
Fall and Spring.
EDUC 351. Field Project in School Settings. 1-3 Credits.
Contact hours of direct experience with school children/youth in educational settings, focusing on specific educational projects or content areas identified by education faculty, school faculty, and other educators. The number of hours assigned will be aligned with the number of enrolled credits. Course is repeatable for credit; may be taken 3 times for a total of 9 earned credits.
P: adm to teacher educ. REC: concurrent enrollment in Educ 307, 309, 324
Fall and Spring.

## EDUC 352. Social and Family Influences on Development and Learning. 3 Credits.

This course is designed for future and currently practicing teachers and other professional members of community organizations. The goal is to develop a better understanding of the many social influences in young children's development that lead to success or failure in school. Factors in the lives of children which lead to positive or negative outcomes in childhood and beyond will be identified; their influence will be explained within such frameworks and approaches as Erikson's theory of psychosocial development and family systems theory. Strategies for helping children and their families as well as knowledge of community resources will be stressed.
P: Admission to Education or candidacy status required; OR admission to the Organizational Leadership major
Fall and Spring.
EDUC 361. Introduction to the Art and Science of Teaching. 3 Credits.
This course provides pre-service teachers with a foundation for understanding the teaching profession and the nature of learners. The course combines both theory and practice in the art and science of teaching.
P: Adm to teacher educ; grade of B or better in EDUC 290, 291 and 340; OR admission to the Organizational Leadership major
Fall and Spring.

## EDUC 405. Student Teaching. 6-12 Credits.

Supervised student teaching or internships in a PK-12 classroom at a level corresponding to the license. Offered on a pass/no credit basis only. Additional special course fee required for students exercising options for extra administrative and travel costs. Course is repeatable for credit.
$P$ : Adm to teacher educ.
Fall and Spring.
EDUC 406. 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: jr st.
Spring Odd.

## EDUC 414. Seminar in Student Teaching/Internship. 2 Credits.

This two-credit seminar is intended to provide student teachers and interns with the opportunity to complete Department of Public Instruction certification requirements as well as to provide student teachers and interns with the experience of interacting with and learning from each other.
P: Concurrent enrollment in EDUC 405
Fall and Spring.
EDUC 415. 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. $P$ : adm to teacher educ.

EDUC 416. Principles of Coaching. 3 Credits.
The materials, drills, offenses, and defenses of specific sports gained through the literature of the field, personal interviews and observations, staff lectures and/or conferences.
Fall Only.
EDUC 417. Philosophy of Athletics and Coaching. 3 Credits.
This course is designed to enable students to develop their philosophies of coaching. A thorough examination of the role of athletics in education and/or society is integral. An attempt is made to assure that the prospective coach has objectives that are consistent with our educational systems.
Fall Only.

## EDUC 418. Organization and Administration of Athletics. 3 Credits.

This course is designed to encompass the various phases of organizing and administering of an athletics program with application to interscholastic, collegiate and nonacademic environments such as sports clubs and public athletics. This course will focus on real-world leadership issues such as hiring coaches; budget development; retaining officials; recruiting workers for athletics contests; booster club coordination; and supervision of coaches and athletics.
Spring.

## EDUC 419. Field Experience in Coaching. 3 Credits.

Culminates study and preparation for practical coaching experience. Participation in practice, competitive and other coaching experiences under the supervision of an experienced cooperation coach. Student coach maintains daily log and consults with and is observed by CCP adviser.
P: EDUC 416
Spring.

## EDUC 420. 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 instructional materials and curriculum guides; and develop learning activities appropriate to their instructional responsibilities. Different topics are selected each year. Required for secondary social studies licensure. Topic will be identified by subtitle with each offering. May be repeated for credit.
EDUC 421. 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: Admission to teacher education and EDUC 361 (or concurrent enrollment); Concurrent enrollment with EDUC 307 and EDUC 309
Fall and Spring.

## EDUC 422. 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: adm to teacher educ
Fall and Spring.
EDUC 425. The Early Years of Literacy and Language Development. 3 Credits.
This course will provide a critical examination of how to help children read and write, particularly in ELL contexts. During this course, students will have opportunities to examine a variety of issues related to teaching literacy to young children, including oral/written language development, emergent literacy/biliteracy, reading fluency, reading comprehension, phonics and vocabulary development, early writing acquisition, differentiation of instruction, children's literature, assessment in early literacy, effective reading/writing strategies, parental involvement, and reading-writing connections. Also, different theories and philosophies regarding children's language/literacy development will be addressed. Developmentally appropriate practices will be also integrated throughout the course.
P: Admitted to the BAS-ILS with ECE emphasis program
Fall Only.
EDUC 441. Infants \& Toddlers: History, Philosophy \& Current Programs. 3 Credits.
Students implement guided observations and learning experiences with infants and toddlers while learning about the historical and current approaches, models and issues.
P: Education Candidacy Status or admission to Education
Fall Only.

EDUC 443. Teaching Kindergarten: Curriculum and Assessment. 3 Credits.
Development of variety of teaching strategies, assessment strategies and resources for appropriate, standards-based learning in full day kindergarten programs. Field Hours are required for this course.
P: Admission to teacher Education or candidacy status required; TB test and criminal background check req Spring.

## EDUC 444. Current Trends in Education. 3 Credits.

This course provides an opportunity to explore the critical trends and issues being debated within the field of Education. Further, this course will examines current trends, historical origins, recurring issues, research findings, and resulting program developments in Education. The topics will be examined through historical and contemporary theory and practices with emphases on themes linked to policy and advocacy. This course examines trends, issues from multiple perspectives, and serves as an impetus to students understanding of the current tensions in the field. Finally, this course will provide students with a deeper understanding of current trends and will also develop the skills needed to critique ideas and issues surrounding education.
P: ORG LEAD major with Early Childhood Education emphasis OR ELEM EDUC major with Early Childhood to Middle Childhood emphasis OR
Candidacy status
Fall and Spring.

## EDUC 445. Working and Communicating With Families of Young Children. 3 Credits.

Students will learn to work with families from diverse backgrounds in non-intrusive partnership, to communicate successfully using basic Hmong, Spanish and sign, and develop knowledge of resources and referral networks for families.
$P$ : early chldhd tchng minor.
EDUC 446. 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.
Fall Only.

## EDUC 452. Principles of Middle Level Education. 3 Credits.

Provides students with an overview of middle level students, teachers, schools, and curriculum. Suggests instructional strategies to meet student needs. Addresses issues related to middle level education.
$P$ : adm to teacher educ.
Fall and Spring.

## EDUC 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## EDUC 495. Special Topics. 1-6 Credits.

Course is repeatable for credit if topics differ.

## EDUC 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit
P: jr st.
Fall and Spring.

## EDUC 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## EDUC 499. 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.

## English (ENGLISH)

## Courses

ENGLISH 104. Introduction to Literature. 3 Credits.
The distinctive characteristics of poetry, plays, short stories and the novel, intended to help students understand, appreciate and enjoy literature ranging from the classic to the contemporary.
Fall and Spring.
ENGLISH 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
ENGLISH 200. Arts Entrepreneurship. 3 Credits.
Foundational course in securing arts and humanities grant support from federal, regional, and local agencies. Projects include grant writing for students' own individual arts and humanities projects, and seeking grants on behalf of clients in diverse fields (ie education, social services, arts and culture).
P: Declared major or minor in English, Writing, or Humanities
Fall Odd.
ENGLISH 201. Ethics in Writing. 3 Credits.
A study of the personal, public, collective, literary, and participatory stakes of storytelling for writers and their audiences. Topics may include editorial aesthetics, diversity and inclusion, cultural appropriation, translation, content warnings, copyright, permissions, plagiarism, intellectual property, and censorship, as well as the unique ethical dilemmas writers face in specific genres of writing (video games, RPGs, professional writing, community storytelling, fantasy, sci fi, realism, poetry, romance, horror).
Fall Only.
ENGLISH 206. Women in Literature. 3 Credits.
An introductory study of diverse women and non-binary writers with a focus on gender studies. Course is not repeatable for credit.
Fall and Spring.
ENGLISH 212. Introduction to Creative Writing. 3 Credits.
A first course focused on the analysis, understanding, appreciation, and techniques of writing poetry and fiction, as well as other genres at the discretion of the instructor.
Fall and Spring.
ENGLISH 214. Introduction to English Literature I. 3 Credits.
A survey of literature from the British Isles, c. 800-1800.
Fall Only.
ENGLISH 215. Introduction to English Literature II. 3 Credits.
A Survey of British Literature from the British Isles and Colonies, 1800-present.
Spring.
ENGLISH 216. Introduction to American Literature I. 3 Credits.
An American literary survey that begins before the colonial era through the Civil War.
Fall Only.
ENGLISH 217. Introduction to American Literature II. 3 Credits.
A survey of American literature written since the Civil War.
Spring.

## ENGLISH 218. World Literatures. 3 Credits.

A survey of literature from one or more countries and/or languages. Topics vary. May be taken twice for a total of 6 credits with a different topic. Fall and Spring.

## ENGLISH 219. World Literatures II. 3 Credits.

Chronological survey of world literatures other than those of England and the U.S. from roughly 1600 to the present. Texts studied will include Nonwestern as well as Western works.
Spring.
ENGLISH 224. Practicum in Literary Publishing. 3 Credits.
Hands-on experience in the production of a literary publication, from selecting submissions to editing the finished product. Course is repeatable for credit up to 6 credits.
P: none. REC: ENGLISH 212 or any Design Arts LL course.
ENGLISH 226. Grammar. 3 Credits.
In-depth study of modern English grammar emphasizing distinctions between grammatical form and function, recognition of basic patterns underlying sentence structure, and usage of grammatical/mechanical knowledge to effectively copy-edit texts of various genres.
Fall Only.

## ENGLISH 227. Copyediting and Workflow. 3 Credits.

A hands-on course dedicated to the editorial process and applying modern language conventions found in commonly-used style manuals, developing line editing skills, utilizing editorial marks and style guides, as well as providing feedback to authors. Participants will also be introduced to analyzing and managing editorial workflows.
P: ENGLISH 226 or concurrent enrollment
Spring.
ENGLISH 228. Introduction to Technical and Professional Writing. 3 Credits.
Introductory course focused on the effective delivery of information pertinent to the professions and technical fields. Participants will analyze a variety of texts, gain hands-on experience with professional and technical writing conventions, and consider ethical dilemmas that impact the field.
Fall Only.
ENGLISH 236. Multicultural American Literature. 3 Credits.
An introductory study of American authors of racially and ethnically-diverse backgrounds.
Fall Only.
ENGLISH 264. Topics in Literature. 3 Credits.
This course explores one topic, which may be a literary subject or genre. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: None. REC: ENGLISH 105.
ENGLISH 290. Literary Studies. 3 Credits.
In this course students will learn how to conduct a literary analysis: how to read literature for complexity, how to make an original, organized argument about a literary text, and how to employ academic prose while developing their own writing voice.
P: English maj/min.
Fall and Spring.
ENGLISH 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ENGLISH 299. 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.

ENGLISH 301. Intermediate Creative Writing. 3 Credits.
Study and analysis of writing techniques and elements, including individual and group criticism of original student materials in workshop context. Variable topics; may be repeated up to total of six credits.
P: ENGLISH 212
Fall Only.
ENGLISH 302. Short Fiction Writing Workshop. 3 Credits.
Advanced practice in the writing of short fiction, including group criticism of student work. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: English 301.
Spring Even.
ENGLISH 303. Advanced Poetry Writing Workshop. 3 Credits.
Advanced practice in the writing of poetry, including group criticism of student work. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: ENGLISH 301.
Spring Odd.
ENGLISH 304. Creative Nonfiction Writing. 3 Credits.
Advanced study and workshop of creative nonfiction genres such as memoir, essay, book review, and interview.
P: Jr standing; English 290 or concurrent enrollment; Eng Comp 105 or ACT English score of 32 or higher; REC: English 212 or 301
Fall Odd.
ENGLISH 305. Novel Writing Workshop. 4 Credits.
Advanced study in the development and writing of the novel, including group critique of student work.
P: ENGLISH 212 with a grade of at least a B; WF 105 (or ACT of 32). REC: ENGLISH 301
Fall Even.

ENGLISH 306. Novel Revision Workshop. 4 Credits.
Revision, structuring, development, and marketing of a $50,000+$ word novel draft, including group critique of student work.
P: ENGLISH 305 or permission of instructor; Note: All students must enter this class with a completed novel draft of at least 50,000 words. REC:
ENGLISH 212
Spring Odd.

## ENGLISH 307. Writing the Environment Workshop. 3 Credits.

Study, writing, and workshop of original creative and professional works about environmental topics and concerns, such as climate change, deforestation, urban sprawl, resource scarcity, pollution, and more. Individual and group criticism of original student writing in workshop context. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: ENGLISH 212 or ENGLISH 228
Fall Even.

## ENGLISH 309. Co-Creative Writing Workshop. 3 Credits.

For an entire semester, students in this course will be partnered with creators at another organization, non-profit, community agency, university, K-12 school, or academic discipline at UW-Green Bay to engage in collaborative arts and writing projects. All parties - UWGB students as well as the organizational partners - will work together as co-creators. Repeatable for up to 6 credits when topics differ.
P: ENGLISH 212, or ENGLISH 228, or ENGLISH 201
Spring Even.
ENGLISH 310. Topics in Game Writing. 3 Credits.
Advanced study and workshop of digital and analog genres incorporating the structural and formal elements of game design, including individual and group criticism of student work. Topics may include digital writing, interactive literature, transmedia work, collaborative worldbuilding, and more. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: ENGLISH 212 or INFO SCI major or DPH major.
ENGLISH 312. Topics in Creative Writing. 3 Credits.
Study and writing of a single topic in creative writing (for example: humor writing, flash fiction, graphic narrative, or writing for entertainment), including individual and group criticism of original student materials in workshop context. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: ENGLISH 212 or ENGLISH 228 or ENGLISH 201.
ENGLISH 314. Topics in Professional \& Technical Writing. 3 Credits.
Advanced study, composition, and workshop of original works found in the fields of professional and technical writing, including individual and group criticism of student work. Topics may include magazine writing, civic and public service writing, travel writing, technical manuals, and more. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: ENGLISH 212 or ENGLISH 228.
ENGLISH 315. The British Novel. 3 Credits.
An upper-level seminar on English-language novels produced in the United Kingdom and/or the Colonies. Topics vary. This course is not repeatable for credit.
P: English 290 or concurrent enrollment, Jr st.
Fall Only.

## ENGLISH 319. Children's and Adolescent Literature. 3 Credits.

A survey of literature for children ( $0-17$ ) focused on techniques of literary study, social contexts of literature, new developments in the field of study, and criteria for evaluating the quality and meaning of fiction and novels, picture books, fairy tales, nonfiction texts, poetry, and plays.
P: ENGLISH 100, ENGLISH 105 (or concurrent enrollment). REC: ENGLISH 290
Fall Only.

## ENGLISH 320. Major Drama. 3 Credits.

An upper-level seminar on stage drama of any culture(s). Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: English 290 or concurrent enrollment, Jr st.
Fall Odd.
ENGLISH 322. Major Poetry. 3 Credits.
This upper-level course focuses on poetry. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: English 290 or concurrent enrollment, Jr st.
Fall Only.
ENGLISH 323. Topics in Literary Criticism. 3 Credits.
In-depth examination of one or more topics, issues, or approaches in literary criticism or theory. May be repeated for credit when a different topic is studied.
P: jr st and English 290, or concurrent enrollment
Fall Odd.

ENGLISH 324. Sheepshead Review Practicum. 3 Credits.
Hands-on experience in the production of the Sheepshead Review, UW-GB's journal of the arts, from selecting submissions to editing the finished product. Projects include soliciting manuscripts and researching the literary market. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: None. REC: English 212
Fall and Spring.
ENGLISH 326. Topics in Publishing. 3 Credits.
Specialized study of a single topic publishing and publications history, such as Meddling Editors, The Book Arts, Russian Print Culture, or \#WeNeedDiverseBooks. Repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: English 290 or Hum Stud 200
Spring Even.

## ENGLISH 327. Digital Platforms for Publishing. 3 Credits.

Project-based exploration and hands-on experience with a variety of publishing systems, markup languages, content management systems, and webpublishing services. Includes study of copyright and creative commons licensing, version control, and asset management.
P: ENGLISH 201 or Declared major in Writing and Applied Arts, English, Humanities, or declared minor in Writing
Spring Even.
ENGLISH 328. Interfaces. 3 Credits.
An exploration of how we interact with texts and technology. This course equips participants with the fundamental skills in interface design, prompt engineering, and writing for user experience human-computer interactivity.
P: None. REC: ENGLISH 212 or ENGLISH 228
Fall Even.
ENGLISH 329. Placemaking and Writing. 3 Credits.
Project-based course focused on the analysis of place for the purposes of developing placemaking grant proposals, conducting community outreach, and giving "voice" to the relationships between people and the spaces they occupy.
P: ENGLISH 201 or Declared major in Writing and Applied Arts, English, Humanities, or declared minor in Writing, or permission of instructor. REC:
ENGLISH 228 or ENGLISH 212
Spring Odd.
ENGLISH 331. Major American Prose Fiction. 3 Credits.
An exploration of American prose fiction through a specific topic or genre. Course is repeatable for credit as topics differ.
P: English 290 or concurrent enrollment, Jr st.
Spring.
ENGLISH 333. Literary Themes. 3 Credits.
Explores a single theme through the literature of one or several nations. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: Junior standing and English 290 or concurrent enrollment
Spring.
ENGLISH 335. Literary Eras. 3 Credits.
An upper-level course that focuses on texts in relation to their time period or literary movement. Course is repeatable for credit as topics differ.
P: English 290 or concurrent enrollment, Jr st.
Fall Only.

## ENGLISH 336. American Ethnic Literature. 3 Credits.

An advanced study of American authors of racially and ethnically-diverse backgrounds. May focus on one or more communities.
P: ENGLISH 290 or concurrent enrollment, Jr st.
Spring.
ENGLISH 338. World Literatures. 3 Credits.
Students will learn to examine the human experience from different global literary perspectives. Topics vary and may include subjects and genres. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: English 290 or concurrent enrollment, Jr st.
Spring.

## ENGLISH 340. History of the English Language. 3 Credits.

The origins, development, and cultural background of pronunciation and spelling, grammar, vocabulary, meaning and usage in Old, Middle, and Modern English, including contemporary English dialects.
P: none; REC: Hum Stud 160.
Spring Odd.

ENGLISH 344. African American Literature. 3 Credits.
An advanced study of African American Literature. Course is not repeatable for credit.
P: ENGLISH 290 or concurrent enrollment, Jr st.
Fall Even.

## ENGLISH 345. LGBTQ Literature. 3 Credits.

This course examines LGBTQ2SIA+ literature. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits. Fall Odd.

## ENGLISH 364. Literary Topics. 3 Credits.

The study of topics through literature. Topics may include subjects, genres, and/or adaptations. May be repeated for credit when content is different. P: jr st.
ENGLISH 400. English Capstone. 3 Credits.
This course provides a transformative culminating experience that results in a public-facing product.
P: English 290; Senior standing
Fall Only.

## ENGLISH 410. Live Video Streaming Practicum. 3 Credits.

Practical experience in the creation of live video content for online streaming platforms. The course will produce and market a wide variety of digital streaming content for the UWGB Center for Games and Interactive Media streaming channel. Skills may include video editing, audience engagement, event preparation, extemporaneous creation, and market research. Course is repeatable for credit, and may be taken 2 times for a total of 6 credits. P: Junior Standing or COMM Major or Writ-AA Major. REC: ENGLISH 310
Spring.

## ENGLISH 424. Book Editing Practicum. 3 Credits.

Practical, hands-on experience editing and producing book-length texts. Depending on course topic, texts may be digital editions or print; skills may include copyediting, developmental editing, digital encoding, annotation, book design, layout, binding, trimming, budgeting, and/or marketing. Course (including individual topics) is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Sophomore standing or instructor permission. REC: ENGLISH 212, DESIGN 131, HUMANITIES 201, ARTS MGT 256
Fall Only.

## ENGLISH 428. Practicum in Community Engaged Writing. 3 Credits.

This service-learning course will provide students with the opportunity to apply skills acquired throughout the program in a professional environment. Participants will work with a single non-profit, civil, or campus-based organization (the client) to help produce an extensive campaign or collection of materials. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 earned credits.
P: ENGLISH 212 or ENGLISH 228 or concurrent enrollment. REC: WF 105
Fall Only.
ENGLISH 431. Shakespeare. 3 Credits.
Study of a representative selection of Shakespeare's plays, including comedies, histories, tragedies, and romances.
P: English 290 or concurrent enrollment, Jr st.
Fall Only.
ENGLISH 436. Major Author(s). 3 Credits.
An upper-level literature course that involves an in-depth exploration of works by one or a few significant writers. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: English 290 or concurrent enrollment, Jr st.
Spring Even.
ENGLISH 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## ENGLISH 495. Teaching Assistantship. 1-6 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
Fall and Spring.
ENGLISH 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings.
P: jr st.
Fall and Spring.

ENGLISH 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
ENGLISH 499. 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.

## Engineering (ENGR)

## Courses

ENGR 104. Engineering Graphics. 1 Credit.
This course introduces students to the creation of 2D engineering drawings using AutoCAD software. Topics covered include line types, drawing sheet layouts, sketching, orthographic projections, section views, isometric drawing, dimensioning, tolerances, and threads and fasteners. P: MATH 101 with a C or higher OR WPT-MFND score $>465$ and WPT-AALG score $>525$, and declared major in Mechanical Engineering. Fall and Spring.
ENGR 120. Electrical Circuits I. 3 Credits.
This course uses theory, laboratory investigation, and circuit simulation software to introduce basic electrical and circuit analysis principles. Emphasis is placed on direct current (DC) circuits containing voltage and current sources and resistor networks in series, parallel, and series-parallel configurations. This course also introduces the concepts of electric and magnetic fields in the context of capacitors and inductors and their transient responses in DC circuits. A section on basic alternating current (AC) resistive circuits with sinusoidal sources is included.
P: MATH 104 with a C or higher, AND declared Electrical Engineering Technology major or Electrical Engineering major or Mechanical Engineering major or Electrical Engineering Principles Certificate
Spring.

## ENGR 121. Electrical Circuits I Lab. 1 Credit.

This course is a laboratory course based on ENGR 120 Electrical Circuits I. In this course, both simulation and implementation of DC circuits will be conducted.
P: ENGR 120 with a C or higher or concurrent enrollment, AND declared Electrical Engineering Technology major, or Electrical Engineering major, or Mechanical Engineering major, or Electrical Engineering Principles Certificate
Spring.
ENGR 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall Only.
ENGR 201. Engineering Materials. 2 Credits.
This course covers the basic behavior and processing of engineering materials, including metals, ceramics, plastics, and alloys. Phase behavior of alloys, response to applied loads, crystalline and noncrystalline behavior are included.
P: ET 206 with a C or higher, OR CHEM 211 and CHEM 212 and CHEM 213 and CHEM 214 all with a C or higher.
Fall and Spring.
ENGR 202. An Introduction to Smart Cities. 3 Credits.
It is anticipated that in the near future a significant portion of world population will live in cities. Cities of the future need to be smart, sustainable, and efficient. This course introduces students to the concept of Smart Cities and explains the technologies, infrastructure, transportation, healthcare systems, and security that must be considered in economic and sustainable development policies. Case studies of a diverse selection of present day smart cities are included to demonstrate the aspects of smart cities in the present and future.
Spring.

## ENGR 204. Programming for Engineers. 2 Credits.

This course introduces students to the fundamental principles of programming for solving engineering problems and familiarizes students with the process of computational thinking and translation of real life engineering to computational problems. Programming languages covered include MATLAB and Python.
P: MATH 202 with a C or higher, and declared Mechanical Engineering major or Mechanical Engineering Technology major.
Fall and Spring.

## ENGR 210. Electrical Circuits II. 3 Credits.

This course deals with the fundamentals of alternating current (AC) circuits including theories, analyses, and design of AC circuits and their applications. This course should be useful in building the knowledge foundation for several future courses on electrical and electronic engineering.
P: ENGR 120 with a C or higher, ENGR 121 with a C or higher, and declared major in Electrical Engineering Technology or Electrical Engineering. Fall Only.

ENGR 211. Electrical Circuits II Lab. 1 Credit.
This course is a laboratory course based on ENGR 210 Electrical Circuits 2. In this course, both simulation and implementation of alternating current (AC) circuits will be conducted.
P: ENGR 121 with a C or higher, ENGR 210 with a C or higher or concurrent enrollment, and declared major in Electrical Engineering Technology or Electrical Engineering.
Fall Only.

## ENGR 213. Mechanics I. 3 Credits.

Elementary vector operations, resultant of two- and three-dimensional force systems, centroid, hydrostatic forces, equilibrium of trusses and frames, laws of friction and impending motion, moments of inertia, virtual work, stability.
P: MATH 202 with a C or higher and declared major in either Mechanical Engineering or Mechanical Engineering Technology
Fall and Spring.
ENGR 214. Mechanics II. 3 Credits.
Displacement, velocity and acceleration components, kinematics of particles using rectilinear and curvilinear coordinates, relative motion, solution and plane motion of rigid bodies, work and potential energy of particles and rigid bodies, linear and angular impulse and momentum, central force motion. P: ENGR 213 with a C or higher
Fall and Spring.
ENGR 216. Basic Manufacturing Processes. 3 Credits.
This course introduces machining, stamping, casting, forming, and joining of materials. It covers basic machine processes use to form materials to desired specifications and includes manufacturing of materials, heat treatment, foundry work, and shaping processes.
P: ENGR 201 with a C or higher, and declared Mechanical Engineering Technology major or Mechanical Engineering major
Fall and Spring.
ENGR 220. Mechanics of Materials. 3 Credits.
This course teaches how to design and analyze simple structures for predetermined strength and deformation requirements. Topics include theory of stress-strain; Hooke's law; analysis of stresses and deformations in bodies loaded by axial, torsional, bending, and combined loads; and analysis of statically indeterminate systems.
P: ENGR 213 with a C or higher; Major in Mechanical Engineering Technology or Mechanical Engineering
Spring.
ENGR 221. Mechanics of Materials Lab. 1 Credit.
This lab teaches students an applied analysis of the distribution of forces in static structures; analysis of axial, torsional, and bending stresses; and loading analysis of systems.
P: ENGR 220 or concurrent enrollment
Spring.

## ENGR 222. Electronic Devices. 3 Credits.

This course introduces semiconductor materials and manipulation to create several types of basic electronic devices such as diodes, bipolar junction transistors, field effect transistors, operational amplifiers and their circuit models for the design and analysis of electronic circuits.
P: ENGR 210 with a C or higher, and ENGR 211 with a C or higher
Spring.

## ENGR 223. Electronic Devices Lab. 1 Credit.

In this course students will perform experiments to verify practically the theories and concepts learned in the Electronic Devices course.
P: ENGR 222 with a C or higher OR concurrent enrollment
Spring.

## ENGR 224. Electrical Codes, Safety, and Standards. 2 Credits.

This course provides an interpretive survey of various codes, safety procedures, and standards as applied to the electrical construction industry. These include discussions on the National Electrical Code (NEC) and related safety organizations and standards guidelines, for instance, OSHA, IEEE, IEC, ISA, ANSI, and UL. Topics also include an overview of electrical wiring, switches and receptacles, metallic and non-metallic sheathed cables, light fixtures, equipment wiring, and conduits. This course also emphasizes electrical safety procedures and up-to-date electrical codes. The National Electrical Safety Code (NESC) would also be introduced.
P: ENGR 120 with a C or higher, ENGR 121 with a C or higher, AND declared Electrical Engineering Technology major or Electrical Engineering major Spring.

## ENGR 236. Technical Writing. 3 Credits.

This course will prepare students to be competent technical writers, both for the scientific community and the general public. Students will learn how to construct well researched and organized papers and lab reports that meet proper grammar guidelines. This will include appropriate use of figures and tables in technical communications. Students will also learn how to write technical directions for assembly and use of equipment. This course meets the graduation requirement for WF 105 for Engineering, Engineering Technology, and Computer Science majors.
P: Declared major in Engineering or Engineering Technology or Computer Science AND WF 100 or WF 164 with a C or better or ACT English score of 25 or above, or SAT Reading Test score of 32 or above
Fall and Spring.
ENGR 260. Introduction to Engineering Ethics. 3 Credits.
This course presents a philosophical examination of the nature of engineering practice and applied technology. The fundamental philosophy of ethics will be covered with application specific to engineering practice. The course will consider how the societal functions of engineers and applications of technology relate to basic ethical and intellectual values, what ethical obligations are implied by the uses and creation of technology, and what ethical duties engineers have in the practice of their careers. Case studies will be used to illustrate concepts.

ENGR 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
ENGR 308. Electrical and Electronic Circuits. 3 Credits.
This course provides an introduction to DC and AC electrical circuit analysis, electronic devices and circuits, transducers, electric machines, and power transmission. This course includes both lecture and lab.
P: PHYSICS 202 with a C or higher OR Concurrent enrollment, AND declared Mechanical Engineering Technology major OR declared Mechanical Engineering major.
Fall Only.

## ENGR 310. Digital Logic Design. 3 Credits.

This course introduces digital electronics, the operation of logic gates, and the theory of combination logic circuits, programmable logic devices, Karnaugh mapping, encoders, decoders, multiplexers, register and counter, A/D and D/A converters and timer circuits. Introduction to transistor level design of digital circuits.
P: ENGR 222 with a C or higher, and ENGR 223 with a C or higher
Fall Only.
ENGR 311. Digital Logic Design Lab. 1 Credit.
In this course students will perform experiments to verify practically the theories and concepts learned in the Digital Logic Design course.
P: ENGR 310 with a C or higher OR concurrent enrollment
Fall Only.
ENGR 312. Engineering Measurements. 2 Credits.
This course teaches students instrumentation and techniques for measurement of mechanical phenomena. It includes generalized measurement systems, characteristics of dynamic signals, calibration, recording systems, error and statistical analysis.
P: ENGR 308 with a C or higher OR concurrent enrollment, and ENGR 326 with a C or higher
Spring.

## ENGR 320. Energy Conversion. 3 Credits.

Electromechanical energy conversion and operating principles of electric machines such as induction machines, synchronous machines, direct current machines, and special machines.
P: ENGR 210 with a C or higher, and ENGR 211 with a C or higher
Spring.
ENGR 321. Energy Conversion Lab. 1 Credit.
In this course students will perform experiments to verify practically the theories and concepts learned in the Energy Conversion course.
P: ENGR 320 with a C or higher OR concurrent enrollment
Spring.

## ENGR 322. Engineering Measurements Lab. 1 Credit.

This course introduces students to the laboratory analysis of Engineering Measurements including instrumentation and measurement systems, calibration, error and statistical methods applied to engineering processes.
P: ENGR 312 with at least a $C$ or concurrent enrollment
Spring.

ENGR 324. Engineering Thermodynamics. 3 Credits.
This course teaches student engineering applications of thermodynamics including the first and second laws, behavior of condensable and noncondensable substances, analysis of open and closed systems, equations of state, and power and refrigeration cycles.
P: PHYSICS 202 with a C or higher, ET 206 or CHEM 211, CHEM 212, CHEM 213, and CHEM 214 with a C or higher; declared major in Mechanical Engineering or Mechanical Engineering Technology
Spring.
ENGR 326. Numerical Methods. 3 Credits.
This courses teaches students applied numerical analysis for linear and non-linear engineering problems; systems of linear equations, non-linear equations, eigen value problems, and optimization techniques; approximate numerical integration and differentiation; developing numerical methods; and solving for initial and boundary value problems. The course includes both a lecture and a lab.
P: MATH 305 with a C or higher OR concurrent enrollment, MATH 209 with a C or higher, and ENGR 204 with a C or higher Fall Only.
ENGR 328. Microcontrollers and Programmable Logic Controllers. 3 Credits.
This course introduces embedded computer systems and mid-range micro-controller peripherals, including electric motor control components, using assembly and C programming. PLC topics such as troubleshooting, timers, counters, sequencers, data move, math, and analog input and output are covered. Ladder logic programming is also introduced.
P: ET 142 with a C or higher, and ENGR 310 with a C or higher
Spring.

## ENGR 329. Microcontrollers and Programmable Logic Controllers Lab. 1 Credit.

In this course students will perform experiments to verify practically the theories and concepts learned in the Microcontrollers and PLCs course. P: ENGR 328 with a C or higher OR concurrent enrollment
Spring.

## ENGR 334. Industrial Decision Processes. 3 Credits.

Industrial decision processes, or operations research, is an applied science that deals with quantitative decision making, usually involving the allocation and control of limited resources. Its focus is using advanced analytical methods for industrial decision making via mathematical optimization and statistical analysis. This course will provide students with the tools and concepts to analyze real world problems in terms of economics and risk. P: MATH 104 with a $C$ or better or higher level math placement and junior standing. REC: MATH 260 or other introductory statistics course.

## ENGR 336. Fluids. 3 Credits.

This course provides an introduction to fluid properties, fluid statics, and fluid dynamics; potential flow; dimensional analysis; closed conduits and external flow; boundary-layer theory; compressible flows; and turbomachinery.
P:ENGR 214 with a C or higher, MATH 209 with a C or higher, and MATH 305 with a C or higher OR concurrent enrollment Fall Only.

ENGR 337. Fluids Lab. 1 Credit.
This laboratory course introduces students to the experimental analysis of Fluid Dynamics concepts including measurement of fluid properties, applications of Bernoulli's equation, and fluid power systems.
P: ENGR 336 with a C or higher or concurrent enrollment
Fall Only.

## ENGR 340. Analysis of Dynamic Systems. 3 Credits.

This course introduces students to mathematical modeling and analysis of dynamic systems with mechanical, thermal, and fluid elements. Topics include time and frequency domain solutions, linearization techniques, state space modeling and solutions.
P: ENGR 204 with a C or higher, ENGR 214 with a C or higher, MATH 209 with a C or higher, and MATH 305 with a C or higher
Spring.
ENGR 342. Signals and Systems. 3 Credits.
This course provides an introduction to analysis techniques for continuous-time and discrete-time signals and typical model systems. Topics include signals and systems definitions and properties as well as signal processing techniques and applications. Signals and systems representations and applications to circuit analysis will also be performed using MATLAB software package.
P: MATH 203 with a C or higher, ENGR 210 with a C or higher, and declared major in Electrical Engineering
Fall Only.
ENGR 343. Signals and Systems Lab. 1 Credit.
This course provides a laboratory session for the analysis techniques for continuous-time and discrete-time signals and typical model systems. P: ENGR 342 with a $C$ or higher OR concurrent enrollment
Fall Only.

## ENGR 344. Mechanical Vibration. 3 Credits.

Mechanical structures and systems are susceptible to vibrations, i.e. periodic changes in the physical state. Vibrations can both be a hindrance and a benefit to machines. This course studies about modeling and analyzing single and multiple degrees of freedom systems. Vibrations of machine elements. Design vibration isolation systems. Balance rotating machinery. Random excitation and response of mechanical structures. Students will utilize basic MATLAB skills to solve problems related to vibrations. Students who completes this course should have a clear understanding of vibrations and modeling of mechanical systems. They will analyze free and forced vibrations and will develop mathematical techniques to model and design mechanical systems.
P: MATH 305 with a C or higher or concurrent enrollment, MATH 209 with a C or higher, and ENGR 214 with a C or higher.
ENGR 346. Electrical Power Systems. 3 Credits.
This course covers characteristics of three phase power configurations and utility systems' interconnections from power generation through distribution systems, including renewable energy sources, transmission lines, utility grid, device coordination, metering, protective relays, fuses, breakers, and fault circuit interrupting.
P: ENGR 320 with a C or higher
Spring.
ENGR 348. Electromagnetic Fields and Applications. 3 Credits.
This course introduces electromagnetic vector quantities and vector operations in different coordinate systems; electric field concepts; potential, dielectrics, magnetic fields, magnetic properties; Maxwell's equations and electromagnetic waves.
P: MATH 203 with a C or higher, ENGR 210 with a C or higher, and ENGR 211 with a C or higher
Fall Only.
ENGR 402. Smart Cities: Engineering the Future. 3 Credits.
Cities are now a major hub of human populations and in the near future a majority of the world's population will live in cities. To meet growth needs, future cities must be engineering to be smart, sustainable, and efficient. This course characterizes features of smart cities, particularly the role of engineering and technology in the design of infrastructure, transportation, health care, and the security and privacy required in smart systems. Case studies will be used to assess and analyze the economics, policy making, and sustainability of smart city design.
P: MATH 104 or higher with at least a C or graduate standing. REC: ENV SCI 102 or ENV SCI 260 or ET 101 or ENGR 198
Fall and Spring.
ENGR 408. Finite Element Analysis. 3 Credits.
Applying introductory concepts of finite element methods like direct stiffness, energy and/or weighted residual methods in analytically solving linear and nonlinear structural and thermal problems. Introduces common finite element programs used in academia and industry. Formulate 1D, 2D and 3D elements models. Comparison of exact solutions with approximate finite element predictions
P: ET 207 with a C or higher, ENGR 204 with a C or higher, and ENGR 220 with a C or higher
Fall Only.

## ENGR 412. Communications Systems. 3 Credits.

This course presents the major concepts necessary to understand the data communications field. The principles of data communication technologies, transmission media, interfaces, channel capacity, error control, flow control, multiplexing, synchronization, circuit switching, and packet switching are the main focus of this course. The course presents the communication systems in terms of their physical and data link layers and then touches upon some selected topics on communications systems and standards. Finally, it is anticipated that introductions to a few selected and special topics in the emerging fields of data communication and networking would also be presented in this course.
P: ENGR 342 with a C or higher
Fall Only.
ENGR 414. Power System Analysis and Protection. 3 Credits.
Electrical power flow analysis, short-circuit analysis, symmetrical and unsymmetrical fault analysis, transient stability analysis, economic load dispatch, and general technical problems of electric power systems.
P: ENGR 346 with a C or higher
Fall Only.

## ENGR 420. Machine Component Design I. 3 Credits.

Detailed design and selection of machine components such as shafts, fasteners, springs, and gears. Analysis of stresses and deformation of the machine components under combined static and dynamic loads, stress concentrations, and fatigue.
P: ENGR 220 with a C or higher
Fall Only.
ENGR 422. Machine Component Design II. 3 Credits.
Design of advanced machine elements such as bearings, gears, brakes, clutches, flywheels, and flexible mechanical elements. Application of mechanics, materials and machine components principles and methods to design mechanical devices and assemblies.
P: ENGR 420 with a C or higher
Spring.

## ENGR 426. Wireless Communications. 3 Credits

This course presents the main concepts to understand the principles of wireless communications systems. The introductory concepts of wireless communications systems, radio wave propagation, channel models and capacity analysis, as well as the performance of wireless communications systems are the main focus of this course. This course should build upon the backgrounds on communications systems and further the knowledge towards wireless communications fields. This course would also include some emerging topics in the field of wireless communications. Therefore, this course should be useful to students who are or would be pursuing careers in the wireless communications and networking fields.
P: ET 350 with a C or higher OR ENGR 412 with a C or higher
Spring Even.

## ENGR 428. Wireless Networks. 3 Credits.

This course presents the main concepts to understand the principles of wireless networks. The introductory concepts of wireless networks, wireless transmission techniques, wireless network topologies, routing, and advanced topics in the fields of wireless and cellular communication networks are the main focus of this course. This course should build upon the backgrounds on communications systems and further the knowledge towards data and wireless networks fields. This course would also include some advanced topics in the field of emerging wireless networks. Therefore, this course should be useful to students who are or would be pursuing careers in the wireless communications and networking fields.

## P: ET 350 with a C or higher OR ENGR 412 with a C or higher

Spring Odd.

## ENGR 430. Heat Transfer. 3 Credits.

This course teaches students fundamental concepts of steady-state and transient conduction, convection, and radiation. It also includes an introduction to heat exchanger principles and applications.
P: ENGR 324 with a C or higher, MATH 209 with a C or higher, and MATH 305 with a C or higher
Spring.
ENGR 431. Thermal Lab. 1 Credit.
This laboratory course includes thermodynamic experiments such as gas laws and internal combustion engines, and heat transfer experiments on conduction, convection and radiation.
P: ENGR 430 with a C or higher or concurrent enrollment
Spring.

## ENGR 432. Automatic Controls. 3 Credits.

This combined lecture and lab course gives students an introduction to feedback control system concepts; mathematical modeling of mechanical, hydraulic, electro-mechanical, and servo systems; feedback system characteristics and performance; stability; design; and compensation of control systems.
P: ENGR 340 with a C or higher
Fall Only.

## ENGR 434. Power Electronics. 3 Credits.

This course covers the fundamental concepts of power electronics, characteristics of static power semiconductor devices (BJT, MOSFET, IGBT, Thyristors), AC/DC power converters: uncontrolled and controlled rectifiers (single phase and three phase), dual converter, AC/AC power converters: phase-controlled converters (single phase and three phase), AC switch, cycloconverter. DC/DC converters: choppers (step down and step up), switching regulators (buck, boost, buck-boost), DC/AC converters: single phase and three phase inverters, and various power control applications.
P: ENGR 222 with a C or higher
Spring.

## ENGR 438. Microprocessors and Embedded Systems. 3 Credits.

This course will provide an introduction to microprocessor and embedded systems. Basic instructions, features, and architecture of a typical microprocessor system will be studied in this course. Topics on microprocessor programming and assembly language programming will be included. Finally, applications of microprocessors and embedded systems will be studied.
P: ENGR 310 with a C or higher
Spring.

## ENGR 460. Senior Design. 3 Credits.

Senior design is the mechanical engineering synthesis course in which students complete a senior design process that includes project proposal, design definition, design analysis, design completion, oral presentation, and a written report.
P: Senior standing in Mechanical Engineering major or Mechanical Engineering Technology major
Spring.

## ENGR 462. Senior Design Project. 3 Credits.

This is the electrical engineering synthesis course in which students complete a capstone design process that includes project proposal, design definition, design analysis, design completion, oral presentation, and a written report.
P: Senior standing in Electrical Engineering
Fall Only.

## ENGR 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs. $P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.

## ENGR 493. Special Topics in Electrical Engineering. 3 Credits.

This course introduces special topics in the field of Electrical Engineering. The topic of the course will be decided by the Electrical Engineering faculty and approved by the Engineering disciplinary Chair prior to being offered.
P: Junior or Senior standing in Electrical Engineering or Electrical Engineering Technology.
ENGR 494. Co-op. 1-2 Credits.
Participation in a full-time position at a host organization providing direct, on-the-job experience with professionals already successful in the selected field. The co-op will be in a position closely related to a professional career associated with the major. Students must complete at least two (2) co-op credits during the fall or spring semester and one (1) credit in the summer to be considered full-time status. Course is repeatable for credit. No more than 6 credits may be used to meet requirements for a major and no more than 3 credits may be used to meet requirements for a minor; may vary by academic department.
P: Junior standing and minimum 2.0 GPA in major emphasis (Dept. will monitor GPA req.).
ENGR 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
ENGR 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.

## ENGR 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Entrepreneurship (ENTRP)

## Courses

## ENTRP 272. Introduction to Entrepreneurship. 3 Credits.

This course introduces the principles of entrepreneurship. The student will evaluate the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The student will understand the role of entrepreneurial businesses, and the role that entrepreneurship plays in economic development and its impact on our regional, national, and global economy. Special emphasis is placed on decision-making and problem solving through an understanding of opportunity recognition, economic/financial models, value creation, organizational structure, human resource management, legal environments, operations management, and other basic entrepreneur-related concepts.

## ENTRP 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.

## ENTRP 373. Entrepreneurial Finance. 3 Credits.

This course introduces the undergraduate student to the entrepreneurial finance topics of self-funding, friendly funding, seed funding, microlending and microlenders, debt financing, equity financing and other nonbank financing sources, sources and uses of funds, startup financial statement development and projections, debt and equity term sheets, valuations, and starting the bookkeeping process.
P: Junior status; ENTRP 272; satisfaction of mathematical competency requirement; Bus Adm major or minor or Acctg major or minor or Entrepreneurship Certificate.
Fall Only.

## ENTRP 481. Small Business Management \& Family Entrepreneurship. 3 Credits.

This course focuses on topics in small business management, family business, and family entrepreneurship. These include: buying (into), growing, and selling or exiting a small business and family business; self-employment, employees, and contractors; microbusiness topics; hiring, training, and employee development in small and family businesses; finance and accounting functions in small and family businesses; intellectual property and forms of business ownership; family entrepreneurship strategies; and franchising strategies. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: Junior status and an overall minimum GPA of 2.5 or higher; Accounting, Business Administration, Finance, HR Management, Management, Marketing major or minor or ONLINE Majors of: Organizational Leadership (BA \& BAS) with a BUS ADM emphasis.
Fall and Spring.

## ENTRP 486. Design Thinking and Developing Business Models. 3 Credits.

Studying design thinking and business models is crucial for entrepreneurs, managers, and designers seeking to develop innovative solutions that address real-world problems. It enables them to approach problem-solving in a structured and human-centered way, focusing on the needs and wants of users. In this course, students will learn how to create a business model, refine that model, and develop a plan for a new venture. Students will learn about several different tools for launching for-profit companies, creating social enterprises, or creating value within existing companies. Students will learn to use tools such as Idea Napkin, Ad-Libs, Value Proposition Canvas, Business Model Canvas, Lean Model Canvas, Blitzscaling Canvas, etc., to create innovative business models. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ENTRP 272
Spring.

## ENTRP 488. Minimum Viable Product and New Product Development. 3 Credits.

Studying Minimum Viable Product and New Product Development is crucial for future entrepreneurs and product managers as it teaches essential principles and techniques for developing and launching successful products, reducing risk and cost while accelerating speed to market. Mastery of these concepts is essential for increasing revenue and customer satisfaction in today's competitive business environment. Students will learn how to develop new physical products through a formal process. Throughout the course, students learn how an abstract idea can be transformed into concrete product concepts that will in turn be translated into tangible working prototypes. Students will create minimum viable products related to their ideas by the end of the course.
P: ENTRP 272
Fall Only.

## ENTRP 491. Advanced Entrepreneurial Marketing. 3 Credits.

This course is designed to be a highly engaging, hands-on course to develop marketing skills that drives success for entrepreneurs and small businesses. Advanced Entrepreneurial Marketing will create an accurate portrayal of the effectiveness of strategic marketing in today's highly competitive marketplace. It's designed to instruct learners how to create, develop, and execute marketing strategy and tactics to grow a successful business. The student will gain insights essential for marketing their entrepreneurial venture using innovative and financially responsible marketing tactics. The student will create effective marketing communication materials suitable for different media including analog and digital for use in their entrepreneurial operation.
REC: ENTRP 272, MKTG 322
Spring.

## ENTRP 492. Social Entrepreneurship. 3 Credits.

Social entrepreneurship as a field of study equips individuals with the skills to create innovative solutions for societal issues while generating financial returns. By fostering sustainable business models that prioritize social and environmental impact, it holds power to bring about positive change on a global scale. This course introduces social entrepreneurship and how it can be used as a tool for social change. Students will learn about the characteristics of social entrepreneurship, the role of innovation and creativity in creating sustainable social ventures, and how to design, implement and evaluate social impact strategies.
P: ENTRP 272
Spring.

## ENTRP 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## ENTRP 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
Fall and Spring.

## ENTRP 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
ENTRP 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ENTRP 499. 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.

## Environmental Science (ENV SCI)

## Courses

## ENV SCI 102. Introduction to Environmental Sciences. 3 Credits.

Examines the interrelationships between people and their biophysical environment, including the atmosphere, water, rocks and soil, and other living organisms. The scientific analysis of nature and the social and political issues of natural resource use.
Fall and Spring.
ENV SCI 103. Introduction to Environmental Sciences Lab. 1 Credit.
Laboratory course to accompany ENV SCI 102
P: ENV SCI 102 or concurrent enrollment.
ENV SCI 198. First Year Seminar. 3 Credits.
Reserved for New Incoming Freshman.
ENV SCI 260. Energy and Society. 3 Credits.
The issues relating energy and society rather than energy technology per se: global energy flows; sources of energy; energy-related problems, policy and conservation; energy growth; future scenarios.
Fall and Spring.
ENV SCI 299. 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.

## ENV SCl 301. Radioactivity: Past, Present, and Future. 3 Credits.

Radioactive isotopes play a significant role in many aspects of the natural and human environments. People are affected throughout their lives by natural and anthropogenic isotopes at local, national, and global scales. From radon in houses and radium in local drinking water supplies to fallout from Chernobyl, humans are directly impacted through health, economic, and technological pathways.
REC: HS chemistry or earth science, or Geosci 102 with at least a C grade
Fall Only.
ENV SCl 303. Environmental Sustainability. 3 Credits.
Principles of environmental sustainability rooted in interdisciplinary and systems perspectives; sustainability of our natural resource system; natural chemical, physical and biological systems which affect and influence sustainable practices; politics and economics of environmental sustainability.
P: None. REC: Env Sci 102
Fall and Spring.
ENV SCl 305. Environmental Fate and Transport. 4 Credits.
Physical and chemical aspects of natural environmental processes. The movement, transformation, and fate of materials and contaminants.
P: CHEM 212 with at least a C grade AND GEOSCI 202 with at least a C grade AND MATH 104 or MATH 202 with at least a C grade AND BIOLOGY
201/202 with at least a C grade
Spring.

## ENV SCI 320. 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: CHEM 108 with at least a C grade or CHEM 212 with at least a C grade; REC: GEOSCI 202.
Fall Only.

## ENV SCI 330. Hydrology. 3 Credits.

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: MATH 104 with at least a $C$ or higher math course

Fall Only.

## ENV SCI 334. Solid Waste Management. 3 Credits.

This course will focus on technical concepts of solid waste management related to the design and operation of landfills, waste-to-energy systems, composting facilities, recycling facilities, and other emerging waste management technologies.
P: ET 201
Spring Even.

## ENV SCl 335. 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: GEOSCI 202 with at least a C grade or CHEM 211 with at least a C grade or BIOLOGY 201 \& BIOLOGY 202 with at least C grades Spring.

## ENV SCI 336. Environmental Statistics. 3 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: MATH 260
Fall Only.
ENV SCI 337. Environmental GIS. 3 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: GEOG 250 with at least a C grade. REC: GEOSCI 202
Fall Only.
ENV SCI 338. Environmental Modeling. 2 Credits.
This course introduces the fundamental concepts and approaches in dynamic modeling of environmental systems, in which system changes through time are a concern. The course will be focused on the creation, analysis, and interpretation of dynamic models within the framework of systems thinking for exploring a variety of environmental problems. Throughout the course, we will use the STELLA software as a tool to assist us in modeling of environmental systems.
P: MATH 104, MATH 202 or MATH 203
Fall Only.
ENV SCI 339. Scientific Writing. 3 Credits.
This course focuses on key elements of scientific writing, including grammar, attention to audience, and building a logical argument. Students will develop their writing skills through mock grant applications, reports, and journal articles.
Fall and Spring.

## ENV SCI 401. 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: Biology 203
Fall Even.

## ENV SCI 403. 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: Biology 203
Fall Odd.
ENV SCI 415. 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: PHYSICS 104 with a C or higher OR PHYSICS 202 with a C or higher OR ENGR 210 with a C or higher or ENGR 308 with a C or higher Spring.

## ENV SCI 424. 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: CHEM 212
Spring Odd.

## ENV SCI 425. 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: Geosci 222 with at least a C grade or Env Sci 102 with at least a C grade.
Spring.

## ENV SCI 433. 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: GEOSCI 202

Fall Even.

## ENV SCI 460. 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.
REC: background in econ and conservation.
Spring.

## ENV SCI 464. 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: CHEM 212 and CHEM 214 and ET 201
Fall Odd.
ENV SCI 467. Capstone in Environmental Science. 4 Credits.
A project-based course in which students address a practical application of scientific and mathematics skills in the environmental sciences. Topics vary. P: BIOLOGY 306 with at least a C grade or ENV SCI 305 with at least a C grade, and MATH 260 with at least a C grade
Fall and Spring.
ENV SCI 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## ENV SCI 491. Senior Thesis/Research in Environmental Science. 3-4 Credits.

A project-based capstone experience where individual students address a specific aspect of the environmental sciences through the use of scientific and mathematical skills.
P: BIOLOGY 306 with at least a C grade or ENV SCI 305 with at least a C grade; MATH 260 with at least a $C$ grade; instr consent. REC: BIOLOGY 306 and ENV SCI 305.
Fall and Spring.

## ENV SCI 492. Practicum in Environmental Science. 1-4 Credits.

A project-based course in which students address a practical application of scientific and mathematics skills in the environmental sciences. Topics vary. Course is repeatable for credit if topics differ.
P: BIOLOGY 306 with at least a C grade or ENV SCI 305 with at least a C grade, and MATH 260 with at least a C grade
Fall and Spring.
ENV SCI 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

ENV SCI 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. All internships must be taken P-NC. Course is repeatable for credit.
$P$ : jr st and gpa > or = 2.75 and completion of 3 UL cses in maj or min.
Fall and Spring.
ENV SCI 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa > or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## ENV SCI 499. 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.

## Environmental Policy \& Planning (EPP)

## Courses

## EPP 102. Environment and Society. 3 Credits.

Complex, energy-intensive societies are facing multiple challenges due to finite resources. This course examines the relationship between humans and the biophysical environment at local, national, and global levels. Emphasis is given to the impact of personal attitudes, cultural beliefs, economics, politics, technology and available resources on environmental problems and solutions. We use systems analysis to highlight how our biophysical environment conditions our human endeavors, and how we need to create resilient social systems to achieve a sustainable society.
Fall and Spring.
EPP 103. Environment and Society Lab. 1 Credit.
A natural science course describing the human alteration of the physical environment with the resulting effects on air, water, soils, vegetation, animal life, \& humans. Field trip(s) may be required. Meets DPI requirements for environmental education at some UW baccalaureate institutions.
Spring.
EPP 152. Introduction to Graphic Display and Planning. 3 Credits.
This course introduces students to understand large information conveyed in graphics and to develop skills to create graphic design for the purpose of displaying, use and conveying/projecting accurate graphics. the course will give students the basic tools to successfully convey accurate messaging and vision.
Fall Only.

## EPP 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
EPP 254. Introduction to Designing with Communities and Neighborhoods. 3 Credits.
The main objective of the course is to introduce students to the fundamentals of urban design and allow students to engage with and critically assess design elements that create places that foster community identity and place making. The course addresses the vexing problems in residential, commercial, office, recreational and public areas in small cities.
Fall Only.
EPP 323. Sustainable Land Use. 3 Credits.
How do we develop walkable, equitable communities and sustainable land use plans for urban and rural areas? This course uses a systems perspectives analysis of land use control methods, legal foundations, social implications, environmental impacts, financial influences, civil and property rights, cumulative impacts, and more. Land use is an increasingly contested topic due to external financial interests, growth pressures, shifting populations, and conditions placed on personal or property rights. Sustainable land use planning requires understanding the interplay between humans and the landscapes we live in or draw from and the constraints or opportunities we work with to fashion more sustainable land use at the local, regional, and national level.
P: None. REC: PU EN AF 202 or ENV SCI 102
Fall Even.

## EPP 324. Transitioning to Sustainable Communities. 3 Credits.

Rising energy costs and climate change mean that we need resilient communities based on localizing inputs/outputs to support health, jobs, housing, transportation, schools, agriculture and city services. We emphasize the many facets of human settlements and the increasingly limited biophysical resources we depend on to structure our social, economic, and environmental systems, and how to make them self-sustaining, energy-efficient, and reliant on local control for job creation, wealth creation, food production and other land use issues. Systems analysis allows us new perspective of the complexities surrounding these interconnected problems. Applying innovative strategies in every sector of daily life will make communities more resilient as they face higher energy costs and climate variability.
P: None. REC: PU EN AF 202 or ENV SCI 102
Fall and Spring.

## EPP 350. Transportation and the City. 3 Credits.

The impact of the transportation subsystem of the city upon other urban subsystems (residential, commercial) and upon urban dwellers.
P: jr st; and POL SCI 101 or PUB ADM 202 or SOCIOL 100
Fall Odd.

## EPP 351. 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.
Spring.

## EPP 379. Natural Resources 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.
P: Pol Sci 101 or Pu En Af 202
Spring Even.

## EPP 390. Colloquium in Environmental Sustainability \& Business. 1 Credit.

Required component of the Certificate in Sustainability and the Sustainability Minor. Focus is placed be upon the nature of systems thinking systems dynamics, and problem solving. Will address systems dynamics in natural world policy creation, human creativity and the arts, and business decision making. Latter half of class is applications focused. Course is non-repeatable for credit; course may be taken for 1 credit which is offered in the first 5 weeks of the semester to satisfy the 1 credit component of the Certificate of Sustainability and to satisfy the first of 3 required Colloquium credits taken for the Sustainability Minor.
EMBI certificate enrollment or sustainability minor enrollment
Fall and Spring.

## EPP 391. Colloquium in Environmental Sustainability \& Business II. 2 Credits.

Required component of the Sustainability Minor. Focus is placed be upon the nature of systems thinking systems dynamics, and problem solving. Will address systems dynamics in natural world policy creation, human creativity and the arts, and business decision making. Course is non-repeatable for credit; course must be taken for 2 credits which are offered in the last 9 weeks of the semester to satisfy the remaining 2 required Colloquium credits needed for the Sustainability Minor.
P: EPP 390
Fall and Spring.
EPP 412. Urban Planning. 3 Credits.
Examines current trends in Planning theory, focusing on City Planning, Urban Design, and Regional Planning.
P: jr st REC: Pol Sci 101.
Fall Only.
EPP 431. Building Sustainable Landscapes. 3 Credits.
This course covers the principles, materials, and methods you need to know for building a wide variety of outdoor sustainable projects to create resilient environments. Topics cover remediating brownfields, healing injured soils, stabilizing slopes, using living materials, collecting and reusing water, raingardens and swales, porous pavements, materials origin and fate, embodied energy and maintenance energy costs, native plants and permaculture designs, urban agriculture and wildlife corridors, using light and darkness to your advantage, reducing noise, sustainable inputs to landscape maintenance, certification or other ways of measuring sustainable outcomes, pre-construction considerations, and more. Students will apply these concepts in a small demonstration project. No previous construction experience required.
Fall Odd.
EPP 452. 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: BUS ADM 220 or PSYCH 205 or MATH 260
Fall Even.

EPP 461. Special Topics in Urban and Regional Studies. 3 Credits.
A multi-disciplinary investigation into a special topic within urban and regional studies. Includes topics such as education, employment, housing and transportation, and urban and regional policy. Course is repeatable for credit if topics differ. May be taken 2 times for a total of 6 earned credits. P: written cons of inst.

## EPP 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## EPP 490. EMBI Co-Op/Experience. 3 Credits.

Required component of the Certificate in Environmental Sustainability and Business. Enrolled students will be placed by EMBI in a business, nonprofit, or governmental setting that involves interdisciplinary problem solving within an environmental sustainability context. This will be a special co-op/ internship/project experience. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Enrollment in Environmental Sustainability and Business certificate program.
Fall and Spring.

## EPP 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## EPP 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.

## EPP 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## EPP 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
EPP 499. 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.

## English as a Second Language (ESL)

## Courses

## ESL 80. Grammar I. 3 Credits.

This course will further students' understanding of English syntax, morphology and structure. Students will focus on productive mastery of verb agreement and tense as well as the syntactic framework of English. Students will learn about dependent and independent clauses and appropriate use of conjunctions to increase confidence using a variety of sentence structures in both oral and written production.

## ESL 81. Reading and Vocabulary I. 3 Credits.

This course is designed for students who struggle to read in English, and are not yet confident in their ability to extract important information from a text. In this course we will focus on using contextual clues to create meaning from unfamiliar vocabulary and confusing semantic structures. Students will learn to extract main ideas, gain comfort with a variety of texts including fiction, non-fiction, academic textbooks, news articles, internet search results, etc.

## ESL 82. Writing Workshop I. 6 Credits.

This course will focus on moving students from basic, short paragraphs to 5 paragraph essays with topic sentences and supporting details that reinforce well-formed thesis statements. Students will learn about focus, organization and cohesion in their writing, with an emphasis on creating strong arguments that are clearly conveyed with American stylistic conventions.

## ESL 83. Listening and Speaking for Everyday Life. 3 Credits.

This course is designed for non-native speakers of English who are seeking to improve their skills for social interactions. A combination of structured and semi-structured production opportunities will help learners to feel confident in everyday interactions. Students will participate in conversations, debates and presentations about current events, cultures around the globe, and many other topics of interest! Opportunities for listening for understanding will be met with a variety of contexts including guest speakers, movies and news clips.

ESL 85. Understanding American Culture. 3 Credits.
Living in a country and among a people who are not your own can prove to be a bit overwhelming and challenging at times. This integrated skills course will focus on cultural adjustment and gaining a better understanding American culture through field experiences, media exposure, readings, and class discussion. Students will grow in their understanding of role of gender and race in America, family life, holidays, leisure activities and a little bit of history, too. Students will emerge from this course with an increased ability to work cross-culturally with partners and in groups as they pursue further study.
ESL 90. Grammar II. 3 Credits.
This course will continue student understanding of advanced grammatical structures. Students will discuss tense and agreement, modals, active/passive tense, subordinate clauses, parallel structure and more. Students will become more effective writers and more confident communicators through this coursework.

## ESL 91. Reading \& Vocabulary II. 3 Credits.

This course will focus on being able to identify main ideas and details that will enable students to summarize academic texts. Students will build reading fluency and develop techniques to assist them with the reading load of university. These skills include skimming, scanning, asking questions of the text, as well as identifying and defining critical vocabulary.

ESL 92. Writing Workshop II. 6 Credits.
This course will introduce students to the concept of writing as recursive process. Students will understand how to develop a thesis, and how to use that thesis to communicate clearly and effectively using strong supporting details throughout their essays. Students will focus on creating effective transitions that smooth communication and highlight important details. Students exiting this course will understand the importance of proper grammar and spelling for effective communication. The course will culminate in a research paper in which students learn research techniques and gain an understanding of proper citations.

## ESL 93. Listening \& Note-taking II. 3 Credits.

In this course, students will be exposed to university style lectures and develop strategies for effective note-taking within that setting. In addition, this course will focus on student response time for academic conversations. Students will focus on the ability to hear, comprehend, process and respond in a timely manner when working in academic settings with professors and other students. Enhancing these skills will be crucial to your academic success!.

## ESL 94. Advanced Oral Communication. 3 Credits.

This course is designed for students who are preparing to engage in university level academic coursework. Emphasis will be placed on enhancing students' communicative skills in both formal and informal academic settings. We will focus on oral fluency in developing appropriate syntactic and semantic structures as well as accent reduction. Students will learn the importance of stress, rhythm and intonation in the American English accent. Students enrolling in this course should be prepared to take new risks and stretch the limits of what they can do with their English!.

## Engineering Technology (ET)

## Courses

## ET 101. Fundamentals of Engineering Technology. 2 Credits.

This course equips students with the tools to be a successful student and practicing engineering technologist. Topics covered include ethics, project management, team work, working with data, creating presentations, engineering design, and an understanding of the engineering technology profession.

## P: None

Fall Only.

## ET 103. Surveying. 3 Credits.

This course covers fundamental concepts and theory of engineering measurements; adjustment and use of instruments; computations; measurement of distance, difference in elevation, angles, and directions; and route and construction surveys. Applications of probability and statistical analysis of surveying are included.
P: MATH 104 or higher; Major in Environmental Engineering Tech
Fall Only.

## ET 105. Fundamentals of Drawing. 3 Credits.

This course equips students with the computer aided design software tools such as AutoCAD to generate 2D engineering graphics, including engineering drawings, that meet industry standards.
P: MATH 101 with at least a C grade or WPT-MFND score >465 and WPT-AALG score >525, AND in Mechanical, Electrical, or Environmental Engineering Technology major or Electrical Engineering major or Electrical Engineering Principles Certificate
Fall and Spring.

## ET 142. Introduction to Programming. 3 Credits.

This is an introductory course in computer programming using the C++ language. Topics covered include problem solving, algorithms, selected statements, repetition, arrays, functions, and sub-programs. Applications to electrical engineering technology are emphasized.
P: MATH 104 with a C or higher, and Electrical Engineering Technology major or Electrical Engineering major or Electrical Engineering Principles Certificate
Spring.

## ET 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## ET 201. Introduction to Environmental Engineering. 3 Credits.

This course explores applications of environmental engineering in determining sustainable methods for reducing air and water pollution and managing and solid and hazardous waste. This includes sources of air and water pollution, health and environmental effects of pollution, and regulations governing pollution. Sources, disposal, regulations, and health and environmental effects of solid waste are also covered. The economic, social, and environmental aspects of sustainable solutions are considered.
Fall Only.

## ET 203. Introduction to Water and Waste Water. 3 Credits.

This course provides an overview of water resources, drinking water standards, water quality characteristics, water pollutants, and storm water management. Sampling and laboratory instrument procedures are included with statistical analysis of data to complete lab reports.
P: CHEM 211 and CHEM 213 with a C or higher
Fall Only.

## ET 206. Chemistry for Engineers. 4 Credits.

This course will provide engineering students with a background in important concepts and principles of chemistry. Emphasis will be on areas relevant for an engineering context with practical applications. In addition to the fundamental concepts of atomic structure, solutions, stoichiometry, kinetics, and enthalpy of reactions, the connections between chemistry, physics, and materials science will be investigated.
P: MATH 104 or concurrent enrollment or equivalent or WPT-MFND score $>465$ and WPT-AALG score $>525$, AND declared major in Mechanical Engineering, Mechanical Engineering Technology, Electrical Engineering, or Electrical Engineering Technology
Fall and Spring.

## ET 207. Parametric Modeling. 2 Credits.

This course provides skills and knowledge to enhance computer-aided design and solid modeling concepts including; part modeling, assemblies, engineering drawings and sheet metal modeling. Also Introduces kinematics motion and finite element simulation concepts by using the SOLIDWORKS software.
P: MATH 101 with a C or higher OR WPT-MFND score >465 and WPT-AALG score >525, AND declared Mechanical Engineering ,or Mechanical Engineering Technology major, or Mechanical Engineering Principles Certificate
Fall and Spring.
ET 218. Fluid Mechanics. 3 Credits.
This course covers the theory of fluids including hydrostatics, hydrostatic forces, buoyancy and stability, Bernoulli's equation, pipe flow, open channel flow, drag and lift.
P: PHYSICS 103 with a C or higher OR PHYSICS 201 with a C or higher OR ENGR 213 with a C or higher, and declared major in Environmental Engineering Technology or Mechanical Engineering Technology
Spring.
ET 250. Continuous Signals and Linear Systems. 3 Credits.
This course provides an introduction to signals and systems analysis techniques for continuous-time signals and linear systems. Topics include continuous-time signals and linear systems definitions and properties as well as signal processing techniques and applications. Signals and systems representations and applications to circuit analysis will also be performed using MATLAB.
P: MATH 203 with a C or higher, and declared major in Electrical Engineering Technology
Fall Only.

## ET 318. Fluid Power Systems. 3 Credits.

This course covers the concept of fluid power and introduces common hydraulic and pneumatic systems used in engineering applications. Design, analysis, operation, maintenance, and application of these fluid power systems are discussed. Topics also include fluid directional, flow and pressure control.
P: ET 218 with a C or higher
Fall Only.

## ET 324. Motors and Drives. 3 Credits.

This course analyzes selection, set-up, and circuitry associated with AC and DC drives and motors. Topics include DC motor characteristics. AC induction, specialty machine performance and characteristics, stepper motors, servomotors, and three phase power systems are also included. P: ENGR 308 with a C or higher, and declared major in Mechanical Engineering Technology
Spring.

ET 330. Hydrology. 3 Credits.
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: MATH 104 with at least a C or higher math course
Fall Only.

## ET 331. Advanced 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: ET 203
Spring Even.

## ET 334. Solid Waste Management. 3 Credits.

This course will focus on technical concepts of solid waste management related to the design and operation of landfills, waste-to-energy systems, composting facilities, recycling facilities, and other emerging waste management technologies.

## P: ET 201

Spring Even.

## ET 340. Advanced Programmable Logic Controllers. 3 Credits.

This course covers interfacing programmable logic controllers to communicate with each other in a complete system. Actuators used in typical industrial related processes are explored. Operation and application of electronic instrumentation and control systems are also covered.
P: ENGR 328 with a C or higher, and ENGR 329 with a C or higher
Fall Only.
ET 342. Supervisory Control and Data Acquisition. 3 Credits.
This course uses knowledge acquired from previous courses including embedded controllers and electrical circuit design as it applies to techniques for precision measurements, interpreting measurement data, and using it to control systems. Hands on laboratory experiments are provided to demonstrate and verify the concepts in precision measurement theory as it relates to process measurements and the accuracy of electrical measurements in industry.

## P: ENGR 328 with a C or higher

Fall Only.

## ET 350. Data Communication and Protocols. 3 Credits.

Concepts needed to understand data, communications, and networking are presented in this course. The principles associated with data communication, transmission media, interfaces, error control, flow control, synchronization, circuit switching, and packet switching are investigated. P: ET 250 with a C or higher

## Spring.

## ET 360. Project Management. 3 Credits.

This course presents an overview of project management with an emphasis on engineering projects. Topics include pre-construction planning, project scheduling systems, critical path management, risk and effects analysis, and failure models.
P: Junior standing and either Electrical, Environmental, or Mechanical Engineering Technology major OR junior standing and Mechanical, or Electrical Engineering major
Fall and Spring.

## ET 380. Industrial Automation Control. 3 Credits.

This course provides exposure to the technology of automation and control for both discrete and continuous manufacturing industries; architecture of industrial automation systems; introduction to automatic control; fundamentals and programming principles of programmable logic controllers (PLC) and relay logic controllers (RLL).
P: ENGR 216 with a C or higher, and ENGR 308 with a C or higher
Fall Only.

## ET 385. Robotics. 3 Credits.

This course introduces the fundamentals of robotics, transformation of coordinate frame, kinematics, dynamic modeling, trajectory generation and control of robots. Will involve robot simulations using MATLAB/Simulink.
P: ENGR 204 with a C or higher, and ENGR 214 with a C or higher
Fall Only.
ET 390. Mechatronics. 3 Credits.
This course provides the knowledge and skills for the design and development of mechanical systems that utilize microcontrollers (dedicated control computers) in order to achieve performance that is not possible with purely mechanical systems, for example: feedback control, automatic acquisition of performance data, adaptive behavior, and interacting with operators (user interface). Students will gain lab-based, hands-on exposure to the design of mechatronic systems including: real-time programming of a microcontroller; selecting sensors and actuators and interfacing them to a microcontroller; and the development and testing of an actual mechatronic system. In addition, students will gain an appreciation for key aspects of mechatronic systems including: sampling rates, noise, interrupts, open and closed-loop control, system integration, and the importance of good documentation.
P: ENGR 204 with a C or higher, and ENGR 308 with a C or higher
Spring.

## ET 391. GIS. 3 Credits.

This course provides an introduction to Geographic Information Systems and the utilization of spatial data for solving geographic problems. Both theoretical concepts of GIS technology and practical applications of GIS will be studied.
P: ET 101 and ET 105 both with a grade of C or higher
Fall Only.
ET 400. Co-op/Internship in Engineering Technology. 3 Credits.
Co-ops/internships are offered on an individual basis and consist of a program of learning activities planned in consultation with a faculty member and an industry sponsor. A student may also conduct research with sponsorship of an individual faculty member. Course is not repeatable for credit. P: junior or senior standing; Major in Electrical, Environmental or Mechanical Engineering Tech
Fall and Spring.

## ET 405. Applied Thermodynamics. 3 Credits.

This course provides senior level students with an overview of applied thermodynamics. Students will apply basic thermodynamics laws to analyze different cycles and systems, including: Vapor power cycles; Gas power cycles; Internal combustion engines; Refrigeration cycles and air conditioning systems; Combined heat and power (CHP) systems; Waste heat recovery technologies, especially organic Rankine cycles.
P: ENGR 324 with a C or higher
Spring.
ET 410. Capstone Project. 3 Credits.
In this class students form teams and define a technological problem with specifications. After developing project proposals, teams work toward solutions while applying principles of technical design from the curriculum. Each team will deliver a formal presentation and each student will provide a written report upon completion.
P: Senior standing in Environmental Engineering Technology or Electrical Engineering Technology or Mechanical Engineering Technology Spring.

## ET 415. 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: PHYSICS 104 with a C or higher OR PHYSICS 202 with a C or higher OR ENGR 210 with a C or higher or ENGR 308 with a C or higher Spring.

## ET 420. Lean Processes. 3 Credits.

This course focuses on the time value of money as well as operating a business using lean manufacturing with the Sic Sigma and other operational models. Topics covered include decisions under risk, best alternative using economic models, present worth analysis, rate of return, and cost benefit analysis.
P: ET 101, ET 360 or concurrent enrollment; Major in Environmental Engineering Tech.

## ET 424. 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: CHEM 212
Spring Odd.

## ET 430. Sustainable Agricultural Management. 4 Credits.

Quantitative study of runoff and sediment transport on agricultural lands. Engineering of structural and non-structural practices used in the management of water, soil, and nutrients on agricultural lands. Student will get acquainted with the practices used on agricultural landscapes to insure the quantitative and qualitative sustainability of soil and water resources, and will acquire the skills needed to engineer these practices through hands-on design approaches.
P: MATH 104 with a C or higher and ENV SCI 320 with a C or higher or Graduate status
Spring Odd.

## ET 464. 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: CHEM 212 and CHEM 214 and ET 201
Fall Odd.

## ET 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## ET 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
ET 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.

## Finance (FIN)

## Courses

## FIN 282. Personal Financial Planning. 3 Credits.

Exploration and functional analysis of consumers' financial needs and problems in our modern and complex society; learning to formulate financial goals, implement and monitor them through specific plans, financial functions such as budgeting, investing, financing, protecting and distributing wealth; philosophies and values of consumers; legal aspects of consumer rights.
Fall and Spring.

## FIN 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
FIN 343. Corporation Finance. 3 Credits.
Organization of basic financial management functions and principles for business; management of fixed and working capital; short-term and long-term financial planning through investment and financing decisions; domestic and international money and capital markets; ethical issues relating to business financial management.
P: ACCTG 201
Fall and Spring.

## FIN 344. Real Estate Principles. 3 Credits.

Nature of real estate ownership, importance of land contracts, title transfer, and mortgage instruments; real estate valuation, finance and investment; impacts of taxation, insuring, marketing, and laws affecting real estate (not intended to prepare students for real estate licensing examination).
P: FIN 343 and an overall minimum GPA of 2.5
Spring.

## FIN 345. Risk Management and Insurance. 3 Credits.

Nature of risks, principal techniques of risk management and the bases for making decisions with respect to the management of personal and business risks.
P: FIN 343 and an overall minimum GPA of 2.5
Fall Only.

## FIN 350. Psychology of Personal Finance. 3 Credits.

CFP Board defines the psychology of financial planning as: "identifying and responding to attitudes, behaviors, and situations that impact decisionmaking, the client-planner relationship, and the client's financial well-being." The psychology of financial planning is more than client psychology or behavioral finance and includes the interaction of planner characteristics with client characteristics. It is the system within which clients planning for their financial goals and financial well-being are aided by financial planners who possess their own history, biases, and values that must be recognized and sometimes subsumed in service to the client. Financial Planners And Professionals At All Stages Of Their Careers Can Gain A Better Understanding Of People's Financial Decision-Making, As Well As Benefit From Insights To Build Further And Strengthen Client-Planner Relationships.
Spring.
FIN 370. Investment Operations and Securities Regulation. 3 Credits.
This course provides investment instruction in operations, trading, markets and regulation. Content directly mirrors the actual FINRA examination. Primary study topics include Understanding Products and Their Risks; Understanding Trading, Customer Accounts, and Prohibited Activities; Knowledge of Capital Markets; and Overview of Regulatory Framework. At the end of the course material, students will be prepared for the FINRA SIE Examination.

P: FIN 343
Fall Only.

## FIN 415. Employee Benefits and Retirement Planning. 3 Credits.

Fundamentals of employee benefits and retirement planning. The course includes an examination of anticipated retirement needs and potential qualified and non-qualified options that might be available. Topics include corporate and individual retirement plans, planning strategies to meet client goals, retirement income management, an integrated framework for the analysis of needs and the fulfillment of goals in the workplace.
P: FIN 343 and an overall minimum GPA of 2.5
Fall Only.
FIN 425. Estate and Trust Planning. 3 Credits.
Application of estate planning methodologies and policies to personal financial planning. Studies the legal, tax, financial, and non-financial aspects of this process, and covers topics such as trusts, will, advance medical directives, charitable giving, wealth transfers, and related taxes.
P: FIN 343 and an overall minimum GPA of 2.5
Spring.

## FIN 442. Principles of Investment. 3 Credits.

Fundamental concepts, theories, and techniques relating to investing; securities markets, investment vehicles and environments, economic, industry and security analyses, portfolio construction and management; active and passive investment strategies; global investment perspectives and their impacts on investors; blend of facts and theories relating to traditional and modern portfolio approaches; ethics in investment decisions; applied computer-assisted investment decisions. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: FIN 343 and BUSAN 220 or MATH 260 or PSYCH 205 and an overall minimum GPA of 2.5
Fall and Spring.

## FIN 445. International Financial Management. 3 Credits.

Conceptual framework and applications of financial management decisions of multinational firms in a global setting; survey of the international financial environment; determinants of international portfolio and direct investment capital flows; assessment and management of impacts of foreign exchange and hedging strategies; impacts of international factors on capital budgeting and financial structure decisions; multinational money and capital markets; taxation of international business.
P: FIN 343 and an overall minimum GPA of 2.5
Spring.

## FIN 446. Advanced Corporation Finance. 3 Credits.

Short-term and long-term financial decisions under risk and uncertainty; financial analysis planning and control; in-depth coverage of theories and applications of capital structure, cost of capital, dividend policies; working capital management; long-term financing decisions; valuation of mergers and acquisitions; international capital budgeting. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: FIN 343 and an overall minimum GPA of 2.5
Fall and Spring.

## FIN 450. Bank Administration and Management. 3 Credits.

Commercial banking theories and practices from a financial management perspective; operations, administration, overall asset-liability management of commercial banks, including bank services, credit and loan pricing and analysis, investment portfolio problems, profitability, cost control, and capital budgeting and analysis; implications of deregulation or re-regulation on the financial industry.
P: FIN 343 and an overall minimum GPA of 2.5
Fall Only.

## FIN 460. Security Analysis and Portfolio Management. 3 Credits.

This course delves into analysis of securities and their role in portfolio construction. Students in this course conduct in-depth financial analysis of the various classes of securities, macroeconomic factors, as well as the industries and their constituent firms. This course also covers comprehensive study of investment management from the perspective of the professional institutional investors. Concepts from security analysis are factored into the dynamics of strategic and tactical investment decision making criteria. Among the topics included are security selection, macroeconomic and industry analysis, portfolio optimization, risk management, portfolio management \& rebalancing, and performance evaluation. The course uses FactSet and Interactive Brokers platforms for research and trade execution purposes.

## P: FIN 343

Spring.

## FIN 475. Financial Plan Development. 3 Credits.

Synthesize and apply comprehensive financial planning concepts and techniques to simulated or actual clients in areas of household accounting, taxes, investments, risk management, retirement planning and estate planning. Students will prepare comprehensive, professional level personal financial plans. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: ACCTG 410, FIN 343, FIN 345, FIN 415, FIN 425, and FIN 442 and an overall minimum GPA of 2.5
Spring.

## FIN 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## FIN 480. Student Managed Investment Fund. 3 Credits.

The purpose of this course is to provide each student with real world and hands-on experience in security analysis and portfolio construction through the management of a Student Managed Investment Fund (SMIF). Students will gain practical experience in securities analysis and portfolio management. Students in this course perform analysis, make investment decisions on the real portfolio for the SMIF, evaluate the fund's performance, and report to external parties including the SMIF Advisory Board. Faculty and professional mentors will train students in the application of fundamental analysis, security selection, and performance evaluation through several lecture/workshop sessions. Increased interaction with the Green Bay area investment community through this class will provide enhanced learning opportunities and exposure to recent industry practices. Course may be repeated for credit; may be taken 3 times for a total of 9 credits. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.

## P: FIN 343

Fall and Spring.

## FIN 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## FIN 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.
FIN 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
FIN 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.

## First Nations Studies (FNS)

## Courses

FNS 198. First Year Seminar. 3 Credits.
Reserved for New Incoming Freshman.

## FNS 210. American Indians In Film. 3 Credits.

This course examines how Hollywood films both construct and appropriate images of American Indians. Students will view films beginning with the silent film era and ending with contemporary movies while exploring and challenging common stereotypes of Native people.
FNS 211. Mentoring First Nations Youth. 3 Credits.
In this is a service learning course that places college students in the field in K-8 classrooms as mentors and tutors to First Nations children. The course teaches skills and dispositions to work with children, teachers, staff and administrators in K-8 with an emphasis on First Nations education. Through extensive field work in K-8 classrooms, undergraduates develop successful relationships in the schools, experience early classroom involvement, and interact with youth. The course is unique in its emphasis on indigenous education and working with First Nations youth while learning from tribal Elder teachers.
P: As required to work in WI public schools, students must pass a back ground check and students must pass a TB test.
Fall and Spring.
FNS 224. First Nations and The Sacred. 3 Credits.
This course explores the world views and oral traditions of First Nations people. Students will examine concepts, ideas, accompanying opinion, and practices within the holistic concept of the Sacred.

FNS 225. Introduction to First Nations Studies. 3 Credits.
This introductory course to First Nations Studies. Course focuses on the history, culture, sovereignty, and contemporary status of Indigenous Nations in the Great Lakes region. The course offers Indigenous cultural contexts through both information and class structure. The Indigenous core value of personal sovereignty is practiced in the course through the application of respect, reciprocity, and relationship.
Fall and Spring.
FNS 295. Special Topics in First Nations Studies. 3 Credits.
This is an introductory course in First Nations Studies. It is a variable content course focusing on one or more theme in the discipline. Course topics may include Indigenous foods, Indigenous ethics, Indigenous plant knowledge, land-based learning, etc. The course is repeatable for credit; may be taken 2 times for a total of 6 credits.
Fall and Spring.
FNS 299. 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.
FNS 301. Oneida Language I. 3 Credits.
A course on the Oneida language offered with the aid of indigenous speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.
Fall and Spring.
FNS 302. Oneida Language II. 3 Credits.
A course on the Oneida language typically offered in the Oneida community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.
P: FNS 301.
Fall and Spring.
FNS 303. Oneida Language III. 3 Credits.
A course on the Oneida language typically offered in the Oneida community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.
P: FNS 302.
Fall and Spring.
FNS 304. Oneida Language IV. 3 Credits.
A course on the Oneida language typically offered in the Oneida community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.
P: FNS 303.
FNS 305. Oneida Language V. 3 Credits.
A course on the Oneida language typically offered in the Oneida community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.

## P: FNS 304.

FNS 306. Oneida Language VI. 3 Credits.
A course on the Oneida language typically offered in the Oneida community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed.
P: FNS 305.
FNS 360. Women and Gender in First Nations Communities. 3 Credits.
This course examines the traditional and contemporary status of First Nations women. The course focuses on the fluid definitions and constructions of gender identity before and after Euro-American contact, exploring the intersections of racism, sexism, homophobia, colonialism, globalization. Decolonization and resistance are primary themes of the course.
REC: FNS 225, FNS 226 or WOST 241
Spring.
FNS 372. Indigenous Nations Oral and Storytelling Traditions. 3 Credits.
Study of the cultural values of Indigenous Nations in North America reflecting the indigenous intellect. Indigenous elder knowledge, story telling methodology, and literature (poetry, and novels) are explored.
P: FNS 225 or 226 or one 300/400 level literature course.
Spring.
FNS 374. Wisconsin First Nations History. 3 Credits.
An in-depth exploration of one First Nation located in Wisconsin: Anishinaabe (Ojibway), Oneida, Menominee, Potawatomi or Mohican. This course explores the history, culture, and contemporary status of one of these nations.

FNS 385. First Nations Intellectual Traditions. 3 Credits.
Drawing upon American Indian oral traditions and Elder epistemology, this course will examine the diverse traditional, cultural, spiritual, and political values and world views of American Indian Nations.
P: FNS 225 or FNS 226
Spring Odd.
FNS 391. First Nations Studies Capstone Seminar. 3 Credits.
This course is designed for students who already have a background in American Indian Studies. It is a variable content course which includes such topics as contemporary issues, environmental justice, American Indian law, and repatriation. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: FNS 225 and 1 other 3 credit course in FNS
Fall Only.
FNS 392. First Nations Justice and Tribal Governments. 3 Credits.
This course explores the pre-contact justice systems and constructions of "justice" among American Indian nations. The impact of colonization upon these structures will be examined as well as the formation and operation of contemporary tribal governing structures.
P: FNS 225 or DJS 204 or DJS 325
Spring Even.
FNS 393. First Nations and Education Policy. 3 Credits.
Basic background and vocabulary necessary to understand, discuss, and analyze the complex variables and important common denominators that affect Tribal and U.S. citizens, particularly through education policy at the federal/state levels.
P: FNS 225
Fall Even.
FNS 395. Special Topics in First Nations Studies. 3 Credits.
This course is designed for students with prior learning in First Nations Studies. This variable content course offers an in-depth study of topics such as Indigenous wellness, Indigenous teaching \& learning, First Nations ethnobotany, Indigenous geography, Indigenous astronomy and star maps, etc. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: 3 prior credits in FNS. REC: FNS 225 and FNS 224
Spring.

## FNS 399. First Nations Studies Oral Tradition Concentration. 3-12 Credits.

The FNS Oral Tradition Concentration allows students an opportunity to study tribal oral traditional knowledge in a variety of settings including working with Indigenous knowledge bearers and Elders in a tribal setting. Course is repeatable for credit; may be taken 3 times for a maximum of 12 earned credits.
P: FNS major or minor; junior or senior status; Instructor Approval.
Fall and Spring.
FNS 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
FNS 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
FNS 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
FNS 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa > or = 2.50; or jr or sr st with cum gpa > or $=2.00$.
Fall and Spring.

FNS 499. 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.

## French (FRENCH)

## Courses

## FRENCH 100. SNC Consortium. 4 Credits.

St. Norbert College course, extended to UWGB students through a consortium agreement.
FRENCH 101. Introduction to the French Language I. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in French.
Fall Only.
FRENCH 102. Introduction to the French Language II. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in French. P: none; REC: 1 yr h.s. or 1 sem college French.
Spring.

## FRENCH 200. SNC Consortium. 4 Credits.

St. Norbert College course, extended to UWGB students through a consortium agreement.
FRENCH 201. Intermediate French Language I. 3 Credits.
Further development of the ability to understand, read and speak French.
P: none; REC: 2 yrs h.s. or 2 sem college French.
Fall Only.
FRENCH 202. Intermediate French Language II. 3 Credits.
Further development of the ability to understand, read and speak French.
P: none; REC: 3 yrs h.s. or 3 sem college French.
Spring.
FRENCH 222. Special Topics. 3 Credits.
French 222 is an intermediate-level course meant to serve as an extension of learning that took place in French 202. French 222 has an emphasis on continued language proficiency in French and includes the study of different cultural topics, including literature, film, and other cultural products and practices.
P: FRENCH 202
Fall and Spring.
FRENCH 299. 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.
FRENCH 300. SNC Consortium. 4 Credits.
St. Norbert College course, extended to UWGB students through a consortium agreement.
FRENCH 320. Intermediate Composition and Conversation. 3 Credits.
Development of fluency through classroom practice in conversation and composition.
P: none; REC: 4 yrs h.s. or 4 sem college French.
Fall Only.
FRENCH 325. Advanced French Conversation and Composition. 3 Credits.
Continues development of fluency through intensive practice and study of the spoken and written language. Stresses accurate use of grammatical structures and sensitivity to differences in style, tone and levels of language from colloquial to formal.
P: FRENCH 320
Spring.

## FRENCH 329. Representative French Authors. 3 Credits.

Important novels, plays, poems, and essays representative of major eras and movements of French society foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and differing treatment of recurring themes. Offered in the language. May be repeated for credit when different subtitle is studied.
P: FRENCH 320
Spring.

## FRENCH 333. Literary Themes. 3 Credits.

Explores a single theme such as fantasy, war, revolution, love, alienation, through the literature of one or many nations. May be repeated for credit when a different theme is studied.
P: FRENCH 320
Fall Odd.
FRENCH 345. Advanced French Grammar and Translation. 3 Credits.
In-depth review and continued study of French grammar, including fundamentals of comparative English-French grammar, and basic principles of translation from French into English and English into French.
P: FRENCH 320
Fall Odd.
FRENCH 346. French Phonetics and Public Speaking. 3 Credits.
Intensive study of French sound system to improve accuracy of pronunciation and intonation. Different accents studies. Intonation patterns needed for different social situations practiced.
P: FRENCH 320
Fall Even.

## FRENCH 354. France Today. 3 Credits.

Aspects of French history and traditional customs and values of contemporary French culture, including rural and urban life, industry and commerce, art and music, etc.
P: FRENCH 320
Fall Even.

## FRENCH 355. Le Monde Francophone. 3 Credits.

A study of the French-speaking (francophone) world outside of France. Students will become familiar with essential features of the geography, history, and culture of francophone countries on five continents.
P: FRENCH 320
Spring Even.

## FRENCH 367. Business French. 3 Credits.

Students read and discuss business articles and correspondence, cultural aspects of business communication. Areas include banking, correspondence, import-export, computers.
P: FRENCH 320
Spring Odd.

## FRENCH 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
FRENCH 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
FRENCH 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
Fall and Spring.
FRENCH 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
FRENCH 499. 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.

## Geography (GEOG)

## Courses

GEOG 102. World Regions and Concepts: A Geographic Analysis. 3 Credits.
Introduction to regional geography, exploring the relationship between physical ecologies and human ecologies. The course covers the regional geographies of the earth's major geographic realms.
Fall Only.
GEOG 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## GEOG 209. Landscapes of North America. 3 Credits.

A general survey of the characteristics and origins of the major natural/physical regions of North America, with emphasis on national parks and monuments and other public areas. Class work will utilize remotely sensed imagery (aerial and satellite) to analyze each major area. Field Trips may be required.
Spring Even.
GEOG 210. Human Geography and Concepts. 3 Credits.
This course introduces you to some of the major topics and models studied in human geography. Specifically, this course will examine the global patterns of population, culture, economic and political systems, and the interconnectedness at the international, national, and sub-national scales.
Fall Only.

## GEOG 211. American Ethnic Minorities. 3 Credits.

The geography of American ethnic minority groups. An introduction to ethnic geography that examines the experience of people of African, Asian, Hispanic, and Native heritage in the United States and Canada. These ethnic minorities are studied using the major themes of cultural geography such as spatial distribution, migration patterns and locational patterns.
GEOG 235. Wisconsin Landscapes and Regions. 3 Credits.
The geography of Wisconsin's natural and cultural landscapes with an emphasis on their sequential development and changing patterns of land use and settlement. Natural resources, population, land utilization, and economic development of the state.

GEOG 250. Introduction to Geographic Information Systems (GIS). 3 Credits.
Computerized Geographic Information Systems (GIS) represent revolutionary software advancement that allow sophisticated information management, analysis and mapping with computer systems. In this class you will learn basic principles for creation and analysis of digital maps, cartographic concepts, and experience an intensive introduction to GIS software (e.g., ArcGIS).
Fall and Spring.
GEOG 299. 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.

## GEOG 321. Coastal Resources Policy and Management. 3 Credits.

How shall we manage where land and waters meet? This course analyzes the importance of coastal resources, ranging from Wisconsin to the Great Lakes to our Pacific, Atlantic, and Gulf coasts, and addresses how rising water levels and stronger storms combine with increased human pressure to force difficult choices on communities to adapt. Using a resiliency framework, we will study biophysical and human development issues on land development, overuse, risk, and their consequent human, environmental, aesthetic, and nearshore effects; climate change impacts on water levels and storms; and numerous case studies of how communities are changing their policy, planning, and redevelopment strategies to adapt to current and future conditions.
REC: EPP 102
Fall Only.

## GEOG 341. Urban Geography. 3 Credits.

The course will focus on the different perspectives within contemporary urban geography and introduce students to social constructions of urban morphology and the interaction between social forces and spatial organization.
Spring.
GEOG 350. GIS in Public and Environmental Policy. 3 Credits.
Uses state-of-the-art software to integrate digitized data maps, transfer data, manage relational data bases, overlay maps, display, query, edit interactive graphics, and geocode addresses. Focus is upon GIS applications tailored to public and environmental policy, e.g., tax base analysis, property mapping, natural resources inventory, crime demography, transportation routing, natural hazards, and emergency management.
P: GEOG 250
Spring.

GEOG 351. Elements of Cartography. 3 Credits.
Principles of basic cartography, including problem identification and clarification, data collection and analysis, compilation, generalization, and symbolization; presentation of data on medium and large scale maps.
$P$ : sophomore standing
Spring.

## GEOG 353. Air Photo Interpretation. 3 Credits.

Techniques for the interpretation of human and natural land use. Wide variety of aerial photo formats and scales are used. Vertical and oblique photos, satellite images, and Internet web sites incorporated into course material.
P : sophomore standing
Fall Only.
GEOG 370. Geography of South America. 3 Credits.
A survey course which will explore the physical features, resources, people, and the political economy of the American southern hemisphere.
Fall Even.
GEOG 450. Advanced Geographic Information Systems. 3 Credits.
Project-based course using ArcGIS. Students define a project, develop a database, analyze spatial data, and develop GIS maps displaying results of their analysis.
P: Geog 350 or Pu En Af 350.
Spring Even.

## GEOG 470. 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 with at least a C grade; REC: Geosci 203.
Fall Even.

## GEOG 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## GEOG 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
GEOG 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa > or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
GEOG 499. 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.

## Geoscience (GEOSCI)

## Courses

## GEOSCI 102. Natural Hazards. 3 Credits.

Explores the dynamic character of the Earth System by characterizing and understanding the causes and consequences of natural hazards. Hazards considered will include earthquakes, tsunamis, volcanic hazards (local, regional, global scales), meteorological hazards (hurricanes, tornadoes, flooding, coastal erosion), and landslides.
Fall and Spring.

## GEOSCI 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
GEOSCI 202. Physical Geology. 4 Credits.
Description and analysis of the geological processes that shape the earth's major internal and external features. Origins, properties and use of the earth's rock and mineral resources. Students will not receive credit for both Geosci 202 and Geosci 102.
Fall and Spring.

## GEOSCI 203. Earth System History. 3 Credits.

The physical history of the Earth through geologic time and the attendant evolution of biological organisms; principles governing interpretation of the rock and fossil record; unraveling of events culminating in modern landscape and life forms.
P: Geosci 202 with at least a C grade.
Spring.
GEOSCI 204. Earth System History Laboratory. 1 Credit.
Practical application of geologic principles and techniques to interpretation of Earth history. Introduction to stratigraphic principles, sedimentary environments, and fossil identification.
P: Geosci 203 with at least a C grade or conc enr.
Spring.
GEOSCI 222. Ocean of Air: Weather and Climate. 3 Credits.
Fundamental processes of the atmosphere, the resulting weather and climate, and the effects of the atmosphere on other aspects of the earth's environments and on humans.
Fall and Spring.
GEOSCI 223. Ocean of Air: Weather and Climate Laboratory. 1 Credit.
Laboratory course to accompany GEOSCI 222. Application of physical principles learned in lecture through a combination of data analysis, problem solving, and experimentation.
P: conc enr in GEOSCI 222
Fall and Spring.

## GEOSCI 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## GEOSCI 299. 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.
GEOSCI 301. Introduction to Geoscience Field Methods. 2 Credits.
A survey of methods of field investigations including description and measurement of rock sequences, introduction to geological mapping, surveying, and writing geological reports.
P: Geosci 202.
Spring Odd.

## GEOSCI 325. Regional Climatology. 3 Credits.

The elements, controls, and classification of climates; the distribution of climate types over the earth; world patterns of climate.
REC: Geosci 222.
Fall Even.

## GEOSCI 340. Introduction to Mineralogy \& Petrology. 4 Credits.

Explores mineral chemistry and structures, identification, association, and occurrence. Surveys the distribution, chemistry, and mineral associations in relation to tectonic environment to interpret rock forming processes.
P: Geosci 202 with at least a C grade.
Fall Even.
GEOSCI 350. Structural Geology and Tectonics. 3 Credits.
How does solid rock deform, and how can this help us understand a dynamic Earth system? Students will be introduced to the geometric, kinematic and dynamic aspects of structures in the Earth's crust. We will utilize basic methods of structural geology to better understand the global plate tectonic processes that shape our world, from earthquakes to mountain ranges.
P: GEOSCI 202. REC: MATH 202
Fall Odd.

## GEOSCI 402. Sedimentology \& Stratigraphy. 3 Credits.

Modern concepts and techniques used to study and interpret the origins and distribution of sediments and sedimentary rocks; principles of biostratigraphy and physical stratigraphy and sedimentology.
P: Geosci 202 with at least a C grade and 203 with at least a C grade.
Fall Odd.

## GEOSCI 421. 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 for credit if topics differ; may be taken 6 times for a total of 9 credits.
P: GEOSCI 202 with at least a C grade OR Consent of the instructor.
Fall and Spring.

## GEOSCI 432. 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: Geosci 202 with at least a C grade; REC: Env Sci 330 with at least a C grade; Math 202.
Spring.
GEOSCI 450. Ore Deposits. 3 Credits.
This course is a survey of economically important Earth materials. How do ore bodies form? What are they used for? What strategies can we use to extract the ore? Additionally, we will also focus on the environmental impacts from extraction and what can be done as possible remediation strategies.
P: GEOSCI 202. REC: GEOSCI 340
Spring Even.

## GEOSCI 470. 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 with at least a C grade; REC: Geosci 203.
Fall Even.

## GEOSCI 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs. P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
GEOSCI 491. Senior Thesis/Research in Geoscience. 3 Credits.
A project-based capstone experience where individual students address a specific aspect of geoscience through the use of scientific and mathematical skills.
P: Senior standing, MATH 260 with C or better, instructor consent. REC: GEOSCI 402, 432, or other appropriate courses, depending upon focus of thesis project.
Fall and Spring.
GEOSCI 492. Special Topics in Geoscience. 1-4 Credits.
Topics not covered by regular courses, such as geomorphology, geology of Wisconsin, laboratory methods, and others. Offerings of different topics can be repeated for credit.
P: None. REC: GEOSCI 202.

## GEOSCI 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## GEOSCI 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.

## GEOSCI 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

GEOSCI 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## GEOSCI 499. 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.

## German (GERMAN)

## Courses

GERMAN 101. Introduction to the German Language I. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in German.
Fall Only.

## GERMAN 102. Introduction to the German Language II. 4 Credits.

Development of basic ability in understanding, reading, speaking and writing in German.
P: none; REC: 1 yr h.s. or 1 sem college German.
Spring.
GERMAN 201. Intermediate German Language I. 3 Credits.
Further development of the ability to understand, read and speak German.
P: none; REC: 2 yrs h.s. or 2 sem college German.
Fall Only.
GERMAN 202. Intermediate German Language II. 3 Credits.
Further development of the ability to understand, read and speak German.
P: none; REC: 3 yrs h.s. or 3 sem college German.
Spring.
GERMAN 222. Special Topics. 3 Credits.
GERMAN 222 is an intermediate-level course meant to serve as an extension of learning that took place in GERMAN 202. GERMAN 222 has an emphasis on continued language proficiency in German and includes the study of different cultural topics, including literature, film, and other cultural products and practices.
P: GERMAN 202
Fall and Spring.
GERMAN 285. Study Abroad: Germany. 3-15 Credits.
P: cons of instr \& prior trip arr \& financial deposit.
GERMAN 299. 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.
GERMAN 320. Intermediate German Conversation and Composition. 3 Credits.
Development of greater fluency through classroom practice in conversation and composition.
P: none; REC: 4 yrs h.s. or 4 sem college German.
Fall Only.
GERMAN 325. Advanced German Conversation and Composition. 3 Credits.
Continues development of fluency through intensive practice and study of the spoken and written language. Stresses accurate use of grammatical structures and sensitivity to differences in style, tone and levels of language from colloquial to formal.
P: GERMAN 320
Spring.

## GERMAN 329. Representative German Authors. 3 Credits.

Important novels, plays, poems, and essays representative of major eras and movements of German society foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and differing treatment of recurring themes. Offered in the language.
Course is repeatable for credit if topics differ.
P: GERMAN 320
Fall Only.

GERMAN 333. Literary Themes. 3 Credits.
Explores a single theme such as fantasy, war, revolution, love, alienation, through the literature of one or many nations. May be repeated for credit when a different theme is studied.
P: GERMAN 320
Spring Even.
GERMAN 335. Literary Eras. 3 Credits.
Studies the works of a number of writers in relation to their time; includes poetry, prose and drama. May be repeated for credit when a different era is studied.
P: GERMAN 320
Spring Even.
GERMAN 345. Advanced German Grammar. 3 Credits.
This course will assist students in improving their overall language proficiency by focusing on more challenging aspects of German syntax and semantics.
P: GERMAN 320
Fall Odd.
GERMAN 350. Major German Drama. 3 Credits.
Study of German drama either by period or by theme. May be repeated for credit when content is different.
P: GERMAN 320
Spring Odd.
GERMAN 351. Major German Prose Fiction. 3 Credits.
Study of German short story and/or novels either by period or by theme.
P: GERMAN 320
Fall Even.

## GERMAN 355. Deutsche Kultur und Landeskunde. 3 Credits.

Expands students' linguistic and cultural proficiency in German through discussion of German history, politics and the arts.
P: GERMAN 320
Spring Even.

## GERMAN 357. German Cinema. 3 Credits.

Historical and critical introduction to the work of prominent German filmmakers and to cinematic representations of German culture.
P: None. REC: GERMAN 320
Fall Even.
GERMAN 358. German Politics and Society. 3 Credits.
Students will gain insight into and knowledge of the political and cultural issues confronting Germany, Europe's most populous country and its largest economy. This course will examine political structures and institutions as well as contemporary issues that influence German and European politics.
REC: junior or senior standing
Spring Odd.

## GERMAN 420. Business German. 3 Credits.

Examines business culture and practices in the German speaking world. Practical exercises, including specialized vocabulary for telephoning, writing business correspondence and a German CV, are combined with an analysis of German corporate structures, industry, labor, management, banking, marketing and advertising.
P: GERMAN 320
Spring Even.

## GERMAN 425. German Translation Studies. 3 Credits.

This course will introduce students to the theory and practice of translating both into and from modern German. Through readings in translation theory and comparative linguistics as well as through group work, students will become aware of the structures and nuances of both languages.
P: GERMAN 320. REC: GERMAN 345
Spring Odd.

## GERMAN 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
GERMAN 485. Study Abroad: Germany. 3-15 Credits.
A semester of study at the University of Kassel in Germany. Students register before departing; upon return, they must submit descriptions of courses taken, evaluations from professors, a formal certificate, and a letter grade.
P: cons of instr \& prior trip arr \& financial deposit.
Fall and Spring.

## GERMAN 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
GERMAN 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
Fall and Spring.
GERMAN 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## GERMAN 499. 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.

## Health Information Mgmt \& Tech (HIMT)

## Courses

## HIMT 300. Survey of Contemporary Computing. 3 Credits.

This course provides a basic overview of contemporary information technology and computers. Topics include computer concepts (e.g., hardware, system architectures, operating systems, etc.), communication technologies, Internet technologies, and data organization/structures. Special emphasis placed on database management systems and data warehousing,
P: HIMT major, Junior standing
Fall and Spring.
HIMT 301. Digital Literacy in Healthcare. 3 Credits.
This course provides an overview of medical clinical workflow, with emphasis on inter-professional electronic documentation and functionalities of the electronic health record (EHR). Through hands-on experience, this course advances the students' understanding of the electronic health record, Health IT policies, data and database management systems in support of the EHR.
Fall and Spring.
HIMT 310. Healthcare Systems and Organizations. 3 Credits.
This course provides an overview of how healthcare and public health are organized and how their services are delivered in the United States (US). Topics to be covered include: public policy (including US health reform initiatives), organization of healthcare systems, components and operation of healthcare organizations including e-health delivery, professional roles and accreditation, legal and regulatory issues including licensure requirements. P: HIMT major, Junior standing
Fall and Spring.

## HIMT 320. Survey of Information Technology in Healthcare. 3 Credits.

Essential healthcare information technologies (HIT) that are used for healthcare information systems (HISs) are examined. Popular HISs include electronic medical record systems (EMRS), the computerized provider order entry systems, telemedicine, telehealth and e-prescribing.
P: HIMT Major; Junior standing
Fall and Spring.

## HIMT 330. Healthcare I: Terminology \& Body Systems. 3 Credits.

Specific terminology and vocabulary used by workers in healthcare and public health will be examined. Topics include medical terminology that broadly relates to human anatomy and physiology, body systems and diagnosis, including prefixes, suffixes, roots and combined forms. Topics will also include healthcare taxonomies and nomenclatures (e.g. ICD-9-CM, ICD-10, etc.).
P: Biology 201/202 with a C or better or Hum Biol 102 with a C or better; HIMT Major and Junior standing
Fall and Spring.

## HIMT 340. Ethical issues, Security Management and Compliance. 3 Credits.

This course introduces three broad subjects: 1? evidence-based medical ethics pertaining to healthcare information management, 2) framework of healthcare information security management including security principles, policies and procedures, security management models, risk assessment, and protection mechanisms, 3) healthcare regulations and compliance with focuses on the legislative systems, policies, and legal environment in the U.S. and the existing health information laws, regulations and standards. Also addressed are the elements and development of compliance programs. P: HIMT Major; Junior standing
Fall and Spring.
HIMT 345. Programming and Software Development. 3 Credits.
Fundamental concepts of programming using a contemporary data analysis language. Topics include variables, conditional execution, functions and methods, iteration, strings, files, and data structures. Applications will be taken from the Healthcare Information Systems.
P: HIMT 301 or conc enr; HIMT major; Junior standing
Fall Only.

## HIMT 350. Statistics for Healthcare. 3 Credits.

This is an introductory course in statistical methods for the health sciences. The course will emphasize the principles of statistical reasoning, underlying assumptions, hypothesis testing, and careful interpretation of results. Some topics covered; major study designs, descriptive statistics, graphical displays of data, probability, confidence intervals and tests for means, differences of means, sample size and power, differences of proportions, chi-square tests for categorical variables, regression, multiple regression, and non-parametric statistics.
P: MATH 101, HIMT major, Junior standing
Fall and Spring.

## HIMT 355. Principles of Management for HIMT Professionals. 3 Credits.

This course provides an overview of basic principles involved in management and communication. Topics include basic management principles, communication skills, interpersonal communication competence, negotiation technique, team/consensus building, professional development, and problem solving/decision-making processes.
P: HIMT Major, Junior standing
Fall Only.

## HIMT 360. Healthcare II: Survey of Disease \& Treatments. 3 Credits.

This course further investigates the topics covered in HIMT 330 Health Care I. Based on each body system the course will further expand into the topics of human disease, human health issues and classification of disease/health issues. Diagnostics, Treatment and Clinical procedures that are currently in practice. In addition, the course will incorporate Pharmacotherapeutic concepts (drugs and therapies to treat/prevent/control human disease/health issues), investigating the variety of drugs used for disease treatment for each body system, this will include the current biologicals that are used for treatment. Topics will include how the drugs and biologicals work, their limitations, and the current diversity of available drugs and biologicals.
P: HIMT 330, HIMT major, Junior standing
Fall and Spring.

## HIMT 365. Healthcare Economics. 3 Credits.

Applications of microeconomic theory to analyze the behavior of health and health care markets. Topics will include: supply and demand of health care services, private health insurance markets, government provision of health care services and health insurance, and health care policy.
P: HIMT Major, Junior standing
Fall Only.

## HIMT 370. Healthcare Systems: Analysis \& Design. 3 Credits.

This is the first course in a two-course sequence that addresses methods and techniques of healthcare information system (IS) analysis and design as performed within the system development life cycle. Included will be techniques for problem definition, requirements gathering, analysis, logical design, selection and evaluation of alternative healthcare information systems solutions from the point of view of the health provider and user. An emphasis is placed on analysis, selection, and evaluation of information systems as they relate to healthcare.
P: HIMT 301, HIMT major, Junior standing
Spring.

## HIMT 375. Database Structures and Management Systems. 3 Credits.

Analyze and design databases to support computer-based information systems. Develop and implement relational database management systems using SQL. Topics include: data modeling techniques such as entity-relationship modeling, extended entity-relationship modeling, database constraints, database normalization techniques, and basic and advanced features of database query language SQL, etc.
P: HIMT 345, HIMT major, Junior standing
Spring.
HIMT 380. Healthcare Billing, Coding and Reimbursement. 3 Credits.
This course examines the coding and reimbursement connection; topics include managed care plans, prospective payment systems, Medicare-Medicaid reimbursement, resource-based Relative Value Scale, case mix management, and revenue cycle management.
P: HIMT 330 \& HIMT 360, HIMT major, Junior standing
Fall and Spring.

## HIMT 400. Healthcare Information and Technology - Data. 3 Credits.

This course explores the sources and data contents of health-care information as well as the proper presentation of it for different usage levels. Topic addressed include: 1) data structure and use of health information (individual, comparative and aggregate), 2) type and content of health record, 3) data quality assessment, 4) secondary data sources, 5) healthcare data sets, 6) Health information archival systems, and 7) National Healthcare Information Infrastructure (NHII). The course will also cover topics in bioinformatics.
P: HIMT 360; HIMT major; Junior standing
Fall and Spring.
HIMT 410. Healthcare Sytems: Implementation and Integration. 3 Credits.
Covers the back-end stages of healthcare systems development lifecycle through the procurement route: development of technical design specifications, procurement procedures (RFP, RFQ, vendor evaluation and selection, and contracting), systems configuration and integration, installation, conversion, operation, and maintenance. Pre-installation testing and post-conversion auditing and monitoring will be emphasized to address the upcoming requirements of federal certification of EHR systems.
P: HIMT 301, HIMT 370, HIMT major, Junior standing
Fall and Spring.
HIMT 415. Human Resource Management in Healthcare. 3 Credits.
This course examines the role of HIM staff in managing human resources to facilitate staff recruitment, retention and supervision.
P: HIMT Major, Junior standing
Spring.

## HIMT 420. Healthcare Systems: Project Management. 3 Credits.

This course addresses the phenomenal impact information system (IS) projects have had on healthcare delivery. Students learn how healthcare IS projects affect organizations, doctors, patients, and chronic-illness treatments, as well as individuals interested in managing their own healthcare. Concepts and tools for effective healthcare IS project management, process re-engineering and work redesign are introduced. The purpose of this course is to expose students to IS project management activities in healthcare settings. Topics covered include recent healthcare IS project trends, budgeting, scheduling, resource management, scope, risk analysis, and deployment controls. The genesis of healthcare project management is covered using specific cases and examples.
P: HIMT Major, Junior standing
Fall and Spring.

## HIMT 425. Data Warehousing and Mining. 3 Credits.

Examine the concept of data warehouse and its effectiveness in supporting strategic decision making. Address the process of creating data warehouse/ data-mart solutions from the identification of the enterprise informational and analytical needs to producing business intelligence by extracting information from the data warehouse by using data mining methods and models.
P: HIMT 375; HIMT major; Junior standing
Fall Only.

## HIMT 430. Quality Assessment and Improvement. 3 Credits.

This course examines the Quality Assessment and Quality Improvement cycle (Plan, Do, Act, Check) and the role of the HIT/HIM in the process. Tools used in quality and risk management processes will be examined.
P: HIMT 350, HIMT major, Junior standing
Spring.

## HIMT 435. Data Communications and Networks in Healthcare. 3 Credits.

This course provides fundamentals of data communications and networking techniques, and examines the linkage of information technology strategies and technological solutions enabling effective communication within and between health care organizations. Major topics include fundamental concepts of data communications and applications, network communication devices, basic technologies of the Local Area Network, Wireless Local Area Network, Wide Area Network, Internet and the Web, the OSI stack, health care information systems standards, and the HIE, RHIN, and the NHIN.
P: HIMT 301, HIMT major, Junior standing
Spring.

## HIMT 440. Group Processes, Team Building and Leadership. 3 Credits.

This course introduces students to the necessary group/team processes that are at the root of building, developing, and maintaining medical/healthcare work teams and the effective functioning of such teams. The course also provides an overview of leadership development techniques. Also included is a focus on the uses of various communication technologies in the team building and functioning processes.
P: HIMT Major; Junior standing
Spring.
HIMT 445. Application of Leadership \& Management in Healthcare Technology. 3 Credits.
This course assimilates and integrates concepts and applications of management and leadership in the healthcare advancing on the topics covered in HIMT 355, 365 and 415. Topics will include strategic leadership concepts, exploring key factors that impact management and planning, change management, critical organizational behaviors for leadership and management focusing on best practices and organizational accountability and assessment models.
P: HIMT 355, HIMT 365 \& HIMT 415; HIMT major; Junior standing
Spring.

## HIMT 450. Healthcare Information and Technology - Standards. 3 Credits.

This course will be an introduction to healthcare information technology standards including standards and regulations for documentation, and will cover health information standards. The course will also investigate soft-ware applications and enterprise architecture in health-care and public health organizations.
P: HIMT major; Junior standing
Fall and Spring.
HIMT 489. Pre-Capstone. 1 Credit.
This is a one-credit course that is intended to serve as an orientation for the HIMT 490 Capstone course as well as a credentialing exam prep course. The Pre-Capstone will help you get more comfortable with all that's involved in the Capstone experience. HIMT 489 will also help prepare you for the upcoming credentialing exam(s) that you will be sitting for (in particular, the RHIA and CAHIMS exams). Please look through the content and discover the steps you need to take to be successful. Take special note of the deadlines and requirements for submitting your documents. Those deadlines are very important. This is a Pass/Fail course. It is a pre-requisite for HIMT 490.
P: HIMT Major; Junior standing. REC: Course must be taken in semester just prior to taking HIMT 490
Fall and Spring.
HIMT 490. Capstone. 3 Credits.
This course is capstone course for both tracks of the degree program. Students are required to find an internship site that is related to healthcare and set up a semester long project from which they can gain hands-on experience in the areas of their concentration. Project set-up will be jointly done by the student, site sponsor, and the faculty of this course, whereas internship supervision will be performed by the project supervisor and the course instructor.

P: HIMT 420, HIMT 489; Last semester of program; HIMT Major
Fall and Spring.

## HIMT 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript.
P: HIMT major, Junior standing
Fall and Spring.

## History (HISTORY)

## Courses

HISTORY 101. Foundations of Western Culture I. 3 Credits.
Comprehensive chronological survey of major events, people, and ideas that have influenced the history, literature, art, and culture of Western
Civilization. This course covers ancient civilization through the Renaissance.
Fall and Spring.

## HISTORY 102. Foundations of Western Culture II. 3 Credits.

Comprehensive chronological survey of major events, people, and ideas that have influenced the history, literature, art, and culture of Western
Civilization. This covers the Renaissance up to the present.
Fall and Spring.

## HISTORY 103. World Civilizations I. 3 Credits.

Chronological survey of major events, people, and ideas that have influenced the history, literature, art, and culture of various world civilizations. This course covers the origins of civilization to the Age of Exploration.
Fall and Spring.
HISTORY 104. World Civilizations II. 3 Credits.
Chronological survey of major events, people, and ideas that have influenced the history, literature, art and culture of various world civilizations. This course covers the Age of Exploration up to the present.
Fall and Spring.
HISTORY 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## HISTORY 205. American History to 1865. 3 Credits.

This course explores early American and United States history through 1865, with attention to politics, society, economy, culture, and gender. Following an overview of Turtle Island (a Native designation for North America) before European contact, likely topics to be considered include the European colonization process; the creation and expansion of the United States; the evolution of quasi-democratic institutions; Native resistance, accommodation, and resilience; the rise and fall of the institution of African slavery in the Atlantic world; early industrialization; and the causes and outcomes of the Civil War.
Fall Only.
HISTORY 206. History of the United States from 1865 to the Present. 3 Credits.
This course explores the history of the United States since 1865, with attention to politics, society, economy, and culture. Likely topics to be considered include: the African-American freedom struggle during Reconstruction and the Jim Crow era; the conquest of the trans-Mississippi west; industrialization and labor conflict; immigration; the expansion of American military and economic power around the world, including participation in the First World War, the Second World War, and the global Cold War; the growth of state power; urbanization and suburbanization; feminism, women's rights, civil rights, and other social movements; and the rise of conservatism since the 1970s.
Spring.
HISTORY 207. Introduction to African-American History. 3 Credits.
Survey of Black people's experience in America, beginning with African culture through the development of Afro-American culture and institutions; includes political, social, economic and cultural history.
Fall and Spring.

## HISTORY 220. American Environmental History. 3 Credits.

This course offers an introduction to environmental history - the study of the historical relationship between humans and the natural world - with a focus on North America from before European contact up to contemporary times. Likely topics to be considered include: First Nations' relationships with nature and land use patterns prior to European contact; the massive environmental changes that came with the arrival of European colonizers; changing ideas about the proper relationships between humans and nature; and major developments in resource use and management, including the rise of the modern environmental movement in the late 20th century and contemporary environmental problems and challenges.
Spring.

## HISTORY 256. Introductory Topics in History. 3 Credits.

A specific topic in an instructor's area of special competence. When offered, the particular topic is indicated in the campus timetable. Course is repeatable for credit if topics differ. May be taken 3 times for a total of 9 earned credits.

## HISTORY 290. The Craft of History. 3 Credits.

This course introduces students to the various ways in which historians think, debate, and write about the past.
P: None. REC: One or more lower-level History courses, such as 101, 102, 103, 104, 205, 206, 207, and/or 220
Fall and Spring.

## HISTORY 299. 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.
HISTORY 301. The Middle Ages. 3 Credits.
Examines Western European history from the late Roman Empire to the Renaissance. Focuses on primary sources and the writings of medieval historians.
P: HISTORY 101 or HUM STUD 201
Fall Odd.

## HISTORY 302. Problems in American Thought. 3 Credits.

Selected themes and topics in the history of American thought and culture from the 17th century to the present. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
REC: HISTORY 205 or HISTORY 206.
HISTORY 309. United States Immigration History. 3 Credits.
This course surveys American Immigration History with a special focus on ethnic and race relations. It emphasizes social issues relating to immigration, immigration laws, and multiculturalism.
REC: HISTORY 205 and HISTORY 206.
Spring.

## HISTORY 310. American Colonial History. 3 Credits.

History of pre-European contact Turtle Island and of North America from the sixteenth century through the late eighteenth century, with an emphasis on interactions among First Nations, Europeans, and Africans, and attention to society, politics, economy, gender, and culture.
REC: HISTORY 205
Spring Even.

## HISTORY 311. History of Wisconsin. 3 Credits.

Wisconsin history from European exploration to the present; development of Wisconsin as part of the international Great Lakes region and the United States; political, economic and cultural history of the region, territory and state.
REC: HISTORY 205 or HISTORY 206 or HISTORY 220.

## HISTORY 312. The Early American Republic. 3 Credits.

This course focuses on the political, economic, social, and religious development of the early United States, from the American Revolution to the eve of the American Civil War. Likely topics include the creation of new governments during and after the American Revolution, federal policy for First Nations and First Nations' responses, the antislavery movement, and the early women's rights movement.
REC: HISTORY 205
Spring Odd.

## HISTORY 325. History of Modern Germany. 3 Credits.

Political, social, economic and cultural development of modern Germany from the early 19th century to the early 21 st century.
Fall Odd.

## HISTORY 326. Global Environmental History. 3 Credits.

This course uses historical and global perspectives to explore the relationship between humans and the living planet, with a focus on 1945 to the present, a period that has been called "the Great Acceleration." Key topics include the rise of the fossil fuel-based, industrial growth economy, globalization, industrial agriculture, population growth and urbanization, the environmental and sustainability movements, and human-caused climate disruption.
REC: HISTORY 220
Fall Only.

## HISTORY 332. Europe in the 19th Century. 3 Credits.

Europe in the 19th-century surveys of European history during the 19th century. We will consider the poiltical, economic, social, and cultural developments that occurred in Europe during this time and discuss such topics as revolution, Napoleon Bonaparte, industrialization, liveralism, socialism, nationalism, Romanticism, political and social reform, 1848, Realism, national unification, imperialism, urbanization, modernism, and the road to World War I.
P: None; REC: jr. st.
Fall Odd.

## HISTORY 333. Europe in the 20th Century. 3 Credits.

Europe in the 20th-century surveys European history from 1900 until 1999. We will consider the political, economic, social, and cultural developments that occurred in Europe during this time and discuss such topics as World War I, the Russian Revolution, modernism, facism, communism, world War II, the Holocaust, the Cold War, decolonization, the welfare state, 1968, 1989, and the European Union.
REC: HISTORY 102 or HISTORY 104
Spring Even.

## HISTORY 334. Contemporary Europe. 3 Credits.

Contemporary Europe explores the significance of European historical events and political, social, and cultural trends during the late 20th and 21st centuries. Topics for consideration may include the Cold War, 1989, ethnic nationalism and "ethnic cleansing", the European Union, globalization, terrorism, the Great Recession, Turkey, Vladimir Putin, immigration, populism, the Ukrainian Revolution, Brexit, the Atlantic Partnership, and the nature of Europe itself.
REC: HISTORY 102 or HISTORY 104
Fall Even.
HISTORY 337. The Rise of Islamic Civilization to 1800. 3 Credits.
Examines the origins of Islam and Islamic civilization and its dispersion throughout Eurasia from 600 to 1800 AD.
P: Hum Stud/History 101 or Hum Stud/History 103, So standing.
Fall Even.

## HISTORY 340. Topics in African American History. 3 Credits.

Each semester of the course will explore a significant topic in African American history such as the civil rights movements, Black nationalism, the African American family, alienation, and affirmation. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
REC: HISTORY 205, HISTORY 206, OR HISTORY 207
Fall Only.

## HISTORY 353. The U.S. and the World. 3 Credits.

This course will explore the United States' interactions with the larger world, including its experiments with imperialism, interventionism, and multilateralism, from 1898 to the present. Through our study of both United States foreign policy and the engagement of Americans with global and transnational issues such as the spread of democracy, free trade, peace, human rights, and environmentalism, we will critical gain insights into the democratic ideals of the United States and their implications for the larger global community.
Spring Even.

## HISTORY 356. History of Modern Africa. 3 Credits.

This course explores the history of modern Africa from 1850 to the present, concentrating on the major political issues faced by the various peoples of Africa from European colonialism onward. We will discuss the development of European colonization, the gradual integration of Africa into the global community, the struggle for liberation, the Cold War in Africa, and modern challenges of post-colonial Africa including civil war, genocide, HIV/AIDS, poverty, and the consequences of colonization.
P: none; REC: jr st.
Spring Even.
HISTORY 365. U.S. Labor and the Working Class: Past and Present. 3 Credits.
This course introduces students to the major themes around the history of American working men and women in the nineteenth, twentieth, and twentyfirst centuries. The course examines the social and political place of working people as well as cultural practices and how they impacted workers' political consciousness.
Spring.

## HISTORY 370. History of Sexuality in the U.S.. 3 Credits.

Historical introduction to sexual behaviors and attitudes in the U.S. from the period of colonization to the present. Includes analyses of the impact of economic, racial, gender, political, and technological change on sexual norms and behaviors.
REC: HISTORY 205 or HISTORY 206
Spring.
HISTORY 380. U.S. Women's History. 3 Credits.
This course will examine the history of American women from the colonial period to the present. Drawing on historical documents from the period - such as letters, essays, laws, memoir, and images - as well as historical scholarship, we will explore the private lives, work, and activism of women of diverse races, ethnicities, and classes. Throughout the course, we will pay particular attention to the themes of work (paid and unpaid), marriage and family life, political activism, and sexuality.
P: none; REC: jr st and one cse in U.S. history, U.S. lit or Women's Studies.
Fall Only.

## HISTORY 399. Public History Methods. 3 Credits.

This course focuses on the theory and practice of public history. Students will examine history in public spaces--such as museums, archives, libraries, historic sites, and national parks, among others--as well as history that is developed for and with public audiences. We will introduce and grapple with difficult questions, such as: Whose history do we collect, document and preserve? How do we resolve the tensions between history and memory? How do we talk about difficult or controversial topics in history? And how do we make history learning exciting and memorable?
P: 6 credits in History. REC: HISTORY 290
Fall Only.

## HISTORY 400. Voyageur Magazine Practicum. 3 Credits.

Hands-on experience in the production of Voyageur: Northeast Wisconsin's Historical Review. Responsibilities include editing manuscripts, content creation, and the development of the magazine's public and digital history projects. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: None. REC: Junior Standing, HISTORY 290
Fall and Spring.
HISTORY 402. America in the Twentieth Century. 3 Credits.
Examines the history of the United States during the Twentieth Century, emphasizing social, political, and economic themes and issues.
P: none; REC: jr st.
Spring.

## HISTORY 421. Topics in Medieval History. 3 Credits.

Examines themes of the Medieval world, such as the Viking Diaspora, Medieval Russia, the Silk Road, and the Byzantine Empire. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: HISTORY 101.

## HISTORY 422. Topics in Early Modern European History. 3 Credits.

The course will explore current topics and themes with European history between the sixteenth and eighteenth centuries. Possible topics include the witch persecutions, crime and punishment, British history and the history of society and gender. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 earned credits.
P: Junior standing. REC: HISTORY 101 or HISTORY 102
Spring.

## HISTORY 423. Topics in Modern European History. 3 Credits.

This course will examine selected topics in European history since 1789. Sample topics might include the French Revolution, the Bourgeoisie, Existentialism, the World Wars, Nazi Germany, Youth, or Popular Culture. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
REC: Junior standing; and HISTORY 102 or HISTORY 104.

## HISTORY 424. Nazi Germany. 3 Credits.

This course examines the politics, society, and culture of Germany's Third Reich. Topics include the Weimar Republic, Adolf Hitler, the rise of the Nazi party, Nazi ideology, the "seizure of power," the Nazi state, women and the family, youth, culture and the arts, racism, terror and propaganda, the Second World War, the Holocaust, and the legacy of Nazism.
P: none; REC: Junior Standing, History 102 or History 104
Spring Odd.

## HISTORY 425. Topics in U.S. History. 3 Credits.

The course will explore topics and themes in United States history from the pre-contact era through to the present. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 earned credits.
Fall Only.

## HISTORY 450. War and Civilization. 3 Credits.

Examination of key aspects and debates concerning the nature and role of warfare in society over a broad range of cultures and time periods. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
REC: Junior standing; and completion of a 100- or 200-level History course.
HISTORY 470. Studies in Comparative History. 3 Credits.
Selected themes and topics in comparative history crossing geographic and temporal boundaries. Possible topics include empires, nomadic societies, the Silk Road, slavery, the Atlantic World, democracy, modern Germany and Japan, and revolutions. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
REC: Completion of a 100- or 200-level History course.
HISTORY 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## HISTORY 480. Seminar in History. 3 Credits.

Theoretical and practical topics and problems such as research techniques, source materials, comparative studies, analysis and interpretation, and the writing of historical inquiries.
P: History 290 and junior status
Fall and Spring.

## HISTORY 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
HISTORY 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
HISTORY 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## HISTORY 499. 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.

## Healthcare Management (HLTH MGT)

## Courses

HLTH MGT 150. Certified Nursing Assistant (CNA). 3 Credits.
Certified nursing assistants play an important role as members of the comprehensive healthcare team in a variety of medical settings. CNAs are employed in hospitals, long-term care facilities, nursing homes, hospices, community care facilities and as home health aides in patient's homes. In addition to receiving technical skills, students will learn additional concepts necessary to provide excellent person-centered care. The CNA program includes a combination of lectures, laboratory practices and supervised clinical work at a medical care facility. This program is recognized and approved by the Wisconsin Department of Health Services. Upon successful completion of the program, the student is eligible to take the Wisconsin Nursing Assistant Competency Examination.
P: Pass a Caregiver Background Check, documentation of influenza vaccine and negative Tuberculosis test.

## HLTH MGT 301. Health Care Systems. 3 Credits.

This course focuses on the organization, delivery, and financing of healthcare in the U.S. It examines both private and public health sectors and effects of government health care policy on the quality of healthcare delivery.
Fall Odd.
HLTH MGT 302. Healthcare Management. 3 Credits.
This course provides an introduction to healthcare management including important issues such as management thinking, cost management, strategic planning, and quality improvement. Case studies will be used to enhance student learning.
Spring Even.

## HLTH MGT 401. Healthcare Economics \& Policy. 3 Credits.

Overview of the economics that drive healthcare in the United States. Topics include a review of major healthcare systems, basic economic principles, payers of healthcare, relationship of healthcare policy to economics, and healthcare reform.
Fall Even.

## HLTH MGT 402. Population Healthcare Management. 3 Credits.

This course examines new requirements for population-oriented health delivery initiatives, and the challenges and opportunities to improve health within and across populations. Topics include determinants of health, sources of population health data, measuring health outcomes, and disease management.
Spring Odd.

## HLTH MGT 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## Hmong (HMONG)

## Courses

HMONG 101. Introduction to the Hmong Language I. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Hmong.
Fall Only.
HMONG 102. Introduction to Hmong Language II. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Hmong.
P: Hmong 101
Spring.

## HMONG 200. Introduction to Hmong Culture. 3 Credits.

Introduction to Hmong culture, including history, traditions, and religion. The course is structured around presentations by individuals from the Hmong community, field experiences in the local community, and presentations of student papers.
P: None REC: Sociol 101 or Anthro 100 or Ur Re St 100
Fall Only.

## HMONG 250. Hmong Community Research. 3 Credits.

Individual and group research projects focusing on the Hmong community. Review of early research in Hmong Studies, development of research skills in qualitative and quantitative methods, writing and presentation of research results. Course is repeatable for credit; may be taken 4 times for a total of 12 credits.
P: None REC: SOCIOL 101 or ANTHRO 100 or UR RE ST 100
Fall and Spring.

## HMONG 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript.
P: None REC: Sociol 100 or Anthro 100 or Hmong 200 or Ur Re St 100.
Fall and Spring.

## HMONG 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
HMONG 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.

## Human Resource Management (HRM)

## Courses

## HRM 262. Introduction to Human Resource Management. 3 Credits.

Personnel management: human resource planning, recruitment, selection, training, motivation, fringe benefits, salary and wages, labor relations, and performance evaluation.
Fall and Spring.

## HRM 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
HRM 460. Employee Development and Training. 3 Credits.
This course provides a detailed look at employee training and development in addition to career management. The goal of training is to improve knowledge, skills, attitudes, and/or behaviors as they relate to employees' current position so that they can perform at a higher level. Employee development is the process of building the skillsets employees need to take on additional responsibilities in their current job and/or receive future promotions. Both processes involve careful consideration of internal and external environmental forces and the mission and vision of the company. The course is designed to demonstrate how training, and development are integrated to support the organization's strategic HRM practices as well as how they relate to other human resource management functions. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: HRM 262 and overall GPA of 2.5 or above.
Fall Only.
HRM 465. Recruitment and Selection. 3 Credits.
This course provides a detailed look at staffing in organizations, including how organizations plan for their staffing needs, use job analysis to develop job descriptions and specifications, choose whether to recruit internally or externally, choose among job candidates, and use statistical analysis to validate selection criteria. The course examines and analyzes various recruitment methods and selection tools, as well as the theoretical and empirical support for each.
P: HRM 262
Spring.

## HRM 466. Employment Law. 3 Credits.

This course provides a detailed look at the law pertaining to human resource management (HRM), including discrimination, occupational health and safety, labor standards, employee information and privacy, negligence, discipline and termination, employment contracts, and collective agreements. Students will learn the substantive law pertaining to HRM, the sources of that law, and how to identify and address legal risks.
P: HRM 262
Fall Only.

## HRM 467. Compensation and Benefits Planning. 3 Credits.

Theories of compensation and work motivation and their impact on various reward systems and the rationale for decisions affecting the selection of benefits. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: HRM 262
Spring.

## HRM 468. Employee Relations. 3 Credits.

This course examines the employer-employee relationship including such topics as organizational policies, employee handbooks, handling complaints, resolving conflicts, managing change, managing diversity, interpersonal mistreatment in the workplace, and the impact of globalization on employee relations. Also covered are various aspects of labor relations, or the relationship between management, employees, and labor unions. In addition, this course explores the social sustainability and ethical implications of human resource management including the effects of high-performance work practices on employee well-being.
P: HRM 362
Fall Only.
HRM 469. Performance Management and Analytics. 3 Credits.
This course provides an in-depth examination of performance management, including defining, measuring and evaluating performance and improving performance management systems. Other areas of focus are role of performance appraisal in performance management and methods to improve accuracy and reduce bias in performance appraisal. Students will also learn the methods and process of job analysis as well as how job analysis informs other key HRM functions. Legal, business case, and ethical implications of performance management are discussed.
P: HRM 362
Fall Only.

## HRM 470. SHRM-CP Prep I. 3 Credits.

This course is the first of two seven-week accelerated courses that prepare you to write the Society for Human Resource Management Certified Professional (SHRM-CP) exam. You will engage in intensive study of the SHRM Body of Applied Skills and Knowledge (BASK) upon which the SHRMCP exam is based and includes competencies and knowledge pertaining to all HRM functions. You will also learn how those functions are strategically deployed to support employee and organizational success and wellness. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: HRM 262, HRM 465, HRM 466, and HRM 468
Spring.

## HRM 471. SHRM-CP Prep II. 3 Credits.

This course is the second of two seven-week accelerated courses that prepare you to write the Society for Human Resource Management Certified Professional (SHRM-CP) exam. You will engage in intensive study of the SHRM Body of Applied Skills and Knowledge (BASK) upon which the SHRMCP exam is based and includes competencies and knowledge pertaining to all HRM functions. You will also learn how those functions are strategically deployed to support employee and organizational success and wellness. At the end of this course, you will write the SHRM-CP exam.
P: HRM 470 or concurrent enrollment
Spring.

## HRM 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## HRM 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## HRM 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.
HRM 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## HRM 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: Bus Adm major or minor or Acctg major or minor and an overall minimum GPA of 2.5
Fall and Spring.

## Human Biology (HUM BIOL)

## Courses

HUM BIOL 102. Introduction to Human Biology. 3 Credits.
Basic concepts, principles, and processes in human biology; the origin of life, evolution, cells, biochemical processes, physiological systems, genetics and metabolism.
Fall and Spring.
HUM BIOL 116. First Aid and Emergency Care Procedures. 3 Credits.
Students will gain knowledge and skills to recognize and respond to emergencies needing CPR and first aid. Basic Life Support (BLS) certification for the healthcare provider can be earned at the successful completion of the course. A course fee is required.
Fall and Spring.

## HUM BIOL 198. First Year Seminar. 3 Credits.

topics vary
Reserved for New Incoming Freshman.

## HUM BIOL 200. Professions in Human Biology. 1 Credit.

The overarching goal of the course is to empower students to achieve career goals. Students will learn how to pursue careers effectively in human biology from student mentors, professional advisors, faculty and alumni.
P: Declared Human Biology Major with freshman or sophomore status
Fall Only.

## HUM BIOL 202. Ethnic Minorities in Science. 3 Credits.

The history and culture of science in the US will be examined, in order to understand what has led to the current under-representation of ethnic minorities in science. The often overlooked contributions of scientists who are members of ethnic minorities will be recognized.
Spring.
HUM BIOL 205. Biotechnology and Human Values. 3 Credits.
Examination of technological developments in biology and medicine, including genetic, behavioral, and organism modification and the moral and ethical concerns raised by such technologies.
P: Hum Biol 102 or Biology 201/202.
HUM BIOL 206. Fertility, Reproduction, and Family Planning. 3 Credits.
Factors that influence reproduction and fertility, i.e., physiological, psychological, social, cultural, and ethical; the methods available for limiting or increasing reproduction; the nature of family planning programs.
P: HUM BIOL 102 or BIOLOGY 201 \& BIOLOGY 202
Fall and Spring.
HUM BIOL 210. Prevention and Treatment of Athletic Injuries. 3 Credits.
This is an introductory course focusing on the basic principles of athletic training (sports medicine). Emphasis will be placed on the role of the athletic trainer in regards to injury prevention, health/injury assessment, and management/rehabilitation of sports related injuries. Content includes history of athletic training, athletic training room procedures, physiology of healing, acute emergency management, and medical referral process. Students learn techniques related to taping, wrapping, splinting, ambulatory aides, and modalities applied to the healing process.
P: Hum Biol 102 with a grade of $C$ or better OR Biology 201/202 with a grade of $C$ or better.
Fall and Spring.
HUM BIOL 215. Personal Health and Wellness. 3 Credits.
Theoretical and practical knowledge about health and wellness, with experiential exercises to heighten awareness of one's own values, attitudes, and abilities toward healthy living.
Fall and Spring.
HUM BIOL 217. Human Disease and Society. 3 Credits.
Impact of diseases in humans. Emphasizes the major diseases, their causes, individual effects, historical significance, and methods of control.
Fall and Spring.

## HUM BIOL 221. Anatomy and Physiology I. 4 Credits.

An examination of the structure and function of the human body at the molecular, cellular, tissue, organ, and system levels of organization. The integration of these levels of organization within the human organism is emphasized. This is the first semester of a two-semester sequence.
P: BIOLOGY 201/202 with at least a C grade; CHEM 207 or concurrent enrollment
Fall and Spring.
HUM BIOL 222. Anatomy and Physiology II. 4 Credits.
An examination of the structure and function of the human body at the molecular, cellular, tissue, organ, and system levels of organization. The integration of these levels of organization within the human organism is emphasized. This is the second semester of a two-semester sequence. P: Hum Biol 221.
HUM BIOL 240. Anatomy and Physiology. 4 Credits.
This course examines the fundamental structure and function of tissues, organs, and systems of the human body.
P: BIOLOGY 201/202 with at least a C grade AND HUM BIOL 241 or concurrent enrollment
FSS.
HUM BIOL 241. Anatomy and Physiology Lab. 1 Credit.
Laboratory Course that accompanies HUM BIOL 240.
P: HUM BIOL 240 or concurrent enrollment AND CHEM 207 or concurrent enrollment
FSS.
HUM BIOL 250. Fitness for Life. 3 Credits.
An introductory course pertaining to health related fitness, including its impact on society and the individual. Students will develop and implement a personal fitness program based on current research in the area. The role and value of fitness will be discussed in terms of physical and emotional health, heart disease, longevity, and quality of life.
HUM BIOL 297. Internship. 1-3 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
HUM BIOL 299. 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.
HUM BIOL 310. Human Genetics. 3 Credits.
The goal of this course is to provide students with an understanding of the basic principles of transmission, molecular, and evolutionary genetics as it relates to humans, and to examine their relevance to our society and human genetic diseases. Topics covered include the molecular basis of heredity, gene regulation, genetic technologies including cloning, genetic testing and gene therapy, and the genetics of cancer.
P: BIOLOGY 201/202 with at least a C grade ; CHEM 108 or 212 with at least a C grade.
Fall and Spring.

## HUM BIOL 315. Foundations of Neuroscience. 3 Credits.

Foundational survey of neuroscience. The course will span topics such as structure and function of the nervous system, behavior (e.g. stress, motivation), sensory and motor systems, physiology, neurotransmission, and research techniques.
P: BIOLOGY 201 or PSYCH 203
Fall Only.

## HUM BIOL 318. Reproductive Biology. 3 Credits.

Course explains basic reproductive processes with emphasis on the factors, both hormonal and environmental, that affect reproductive functions in mammals; how these processes can be modified to control reproduction.
P: HUM BIOL 240 or BIOLOGY 307 with a grade of C or better
Fall Only.

## HUM BIOL 322. Epidemiology. 3 Credits.

Foundational knowledge of epidemiology, the study of disease in/among populations, and relevant introductory bio-statistical methods and practical applications to public health and biomedical sciences.
REC: BIOLOGY 201 with a grade of $C$ or higher AND BIOLOGY 202 with a grade of $C$ or higher; OR HUM BIOL 202 with a grade of $C$ or higher Spring.

## HUM BIOL 323. Medical Microbiology. 3 Credits.

This course will explore the clinical impact of microbes on human health to prepare students for programs and careers as healthcare professionals (e.g., Physicians, Nurses, Pharmacists, Physical therapists, Dentists, Veterinarians, Athletic Trainers) and programs in biomedical science. Evaluating the biological mechanisms by which microbe-human interaction leads to disease will be a focus, along with an understanding of vaccine platforms and therapeutics. Scientific literacy will be emphasized as it relates to vaccines and therapeutics, along with an understanding of their mode of action and application in clinical settings.
P: BIOLOGY 201 with at least a C grade
Spring.

## HUM BIOL 324. The Biology of Women. 3 Credits.

This course will examine the physiology of the adult female body and will address health issues that are unique to or different in women. Emphasis will be placed on the effects of female sex hormones on multiple processes (reproductive, nervous, endocrine, and cardiovascular) in the body. P: HUM BIOL 102 with at least a C grade or BIOLOGY 201/202 with at least a C grade Spring.

## HUM BIOL 326. Medical Microbiology Lab. 1 Credit.

Medical Microbiology laboratory provides students interested in healthcare professions and biomedical science with opportunities to learn and apply laboratory concepts and techniques to identify microbes of clinical concern according to American Society of Microbiology safety guidelines. Bacteria, fungi and parasites of clinical concern will be emphasized.
Spring.

## HUM BIOL 331. Science and Religion: Spirit of Inquiry. 3 Credits.

This course examines the differing world views of science and religion; origins of science in the Judeo-Christian West; sources of conflicts; domains of validity; and of limitations of science and religion.
P: Hum Biol 102 with at least a C grade or Biology 201/202 with at least a C grade; and sophomore status
Spring.

## HUM BIOL 333. Principles of Sports Physiology. 3 Credits.

This course emphasizes the applied aspects of (exercise) physiology. Major topics include: use of energy during exercise, principles of training, aerobic training, interval training, strength training, gender and exercise, ergogenic aids, e.g., blood doping, and the impact of environmental conditions, e.g., altitude, on exercise.
P: Hum Biol 240 \& Hum Biol 241 or Hum Biol 221 \& Hum Bio 222 with at least a C grade Spring.

## HUM BIOL 341. Human Anatomy Laboratory. 1 Credit.

This course involves learning human anatomy and human anatomy dissection techniques using cadavers through the process of dissecting and analyzing human cadaver specimens. Students will learn detailed human anatomy for a specific area of interest by dissecting and identifying anatomical components of that area. In addition, students will learn major significant human anatomy for the entire human body to include muscles, nerves, blood vessels, glands, Gl tract and reproductive systems.
P: HUM BIOL 240 \& HUM BIOL 241 or HUM BIOL 221 \& HUM BIOL 222 AND approval by instructor. REC: HUM BIOL 351, BIOLOGY 340 Fall Only.
HUM BIOL 343. Exercise Training and Prescription. 3 Credits.
This course is designed to enable students to learn, design, and apply principles of physiology to training and conditioning, i.e., exercise prescription. Some of the basic principles of exercise physiology will necessarily be covered, but the emphasis of this class will be on principles of training and conditioning. The course presents principles for training for various components of exercise, including strength, flexibility, speed, and endurance. The course includes considerations for training various populations, e.g., cardiac rehab patients, and various environmental conditions, e.g., altitude. It will also provide principle for the use of ergogenic or ergolytic aids when training. This class will be beneficial to (strength and conditioning) coaches, athletic trainers, fitness enthusiasts, athletes, coaches and others with an interest in the physiologic principles and practices involved in developing specific programs for training/conditioning.
P: HUM BIOL 240 and 241 or HUM BIOL 221 and 222 with at least a C grade
Spring.

## HUM BIOL 344. Motor Learning and Performance. 3 Credits.

This course introduces processes and relevant theories that underlie acquisition and performance of motor skills. Students gain an understanding of psychomotor and neuromuscular function in the control of human movement. Tactile, proprioceptive, and visual sensory systems are also examined in terms of their anatomical and physiological basis, how they influence the control of movement, and the limits they place on human motor skill performance.
P: HUM BIOL 240 \& HUM BIOL 241 with a grade of C or higher
Fall Only.

## HUM BIOL 351. Kinesiology. 4 Credits.

This course provides an in depth study of the human musculoskeletal system as it pertains to movement of the body and/or its parts. There are three major components to this course - anatomy (detailed musculoskeletal anatomy), functional anatomy (understanding bodily movement in light of anatomical structure), and biomechanics (mathematical quantification of bodily movement, forces, etc.)
P: HUM BIOL 240 \& HUM BIOL 241 or HUM BIOL 221 \& HUM BIOL 222 with a grade of $C$ or higher AND CHEM 207 or concurrent enrollment Fall Only.
HUM BIOL 360. Exercise Physiology. 3 Credits.
In this course, students learn the ventilatory, cardiovascular, muscular, hormonal, and metabolic response to (acute) exercise and exercise training. P: HUM BIOL 240 or HUM BIOL 221 \& HUM BIOL 222 with a grade of $C$ or higher AND MATH 260 AND concurrent enrollment in HUM BIOL 361 Fall Only.

## HUM BIOL 361. Human Physiology Lab - Exercise and Metabolism. 1 Credit.

The laboratory involves measurement, analysis, and interpretation of a variety of physiological parameters that are associated with physical exercise. Students will do experiments designed to assess exercise related changes in heart rate, blood pressure, ventilation, and oxygen consumption. Additionally, students will do assessments on EKG, pulmonary function, body composition and maximal exercise capacity.
P: Concurrent enrollment in Hum Biol 360.
Fall Only.

## HUM BIOL 401. Art and Science. 1 Credit.

Examination of art and science as ways of knowing, including discussion of various points of view regarding the differences and similarities between the two.
P: Hum Biol 102 or Biology 201/202 or Biology 203/204
Spring.

## HUM BIOL 402. Human Physiology. 3 Credits.

This course involves detailed study of the mechanisms of human physiology. General principles of physics, chemistry, biology, and regulation and feedback within physiological processes are used to understand human physiology from the cellular to the organismal level. Processes and mechanisms underlying the function of the nervous, muscular, endocrine, cardiovascular, digestive, respiratory, renal, reproductive, and immune systems are studied. Examples of normal and disease-state physiology are used to practice application of material, develop a thorough understanding of each process, and improve critical-thinking skills.
P: HUM BIOL 240 or HUM BIOL 222 with at least a C grade, AND BIOLOGY 307 or CHEM 330, or NUT SCI 327
Fall and Spring.
HUM BIOL 403. Human Physiology Laboratory. 1 Credit.
This course examines a number of physiological principles in a laboratory setting. Students will develop skills in laboratory techniques, experimental design, science writing and presentation, and critical analysis of scientific literature. Students will also develop skills in data literacy including skills for statistical testing, and analysis, interpretation, graphical representation, and presentation of data. This course includes writing emphasis (WE) and capstone designations.
P: HUM BIOL 402 with at least a C grade or conc enr or BIOLOGY 346 with at least a C grade or conc enr; AND MATH 260
Spring.
HUM BIOL 405. Biotechnology and Ethics. 3 Credits.
Examination of the science and ethics of biotechnology including genomics, eugenics, recombinant DNA technology, reproductive technology, stem cells, drugs, modified organisms, and treatment of diseases.
P: none; REC: Hum Biol 102 or Biology 201/202.
Fall and Spring.

## HUM BIOL 413. Neurobiology. 3 Credits.

This course will cover the physiological and molecular mechanisms of nervous system function. Topics include neuroanatomy; development and differentiation of neuronal cells; chemical and electrical functions; synaptic pharmacology; sensory receptors; learning and memory; and various disease states and medical treatments.
P: PSYCH 308 or consent of instructor
Spring.
HUM BIOL 422. Immunology. 3 Credits.
This course examines the mechanisms of vertebrate, particularly human defense against microbial invasion and cancer.
P: BIOLOGY 323 with at least a C grade or BIOLOGY 307 with at least a C grade; CHEM 212 with at least a C grade; and MATH 260 with at least a C grade
Spring.
HUM BIOL 423. Immunology Lab. 1 Credit.
This laboratory course examines the mechanisms of innate and acquired immunity.
P: HUM BIOL 422 or conc enr and CHEM 207 or conc enr
Spring Odd.

## HUM BIOL 426. Cancer Biology. 3 Credits.

This course examines the genetic changes and molecular events that lead to abnormal cell growth and cancer. Topics covered include oncogenes, tumor suppressor genes, angiogenesis, invasion and metastasis, cancer stem cells, therapeutic approaches for cancer treatment, and cancer prevention.
P: Biology 307 or Hum Biol 310 or Biology 410 with at least a C grade
Spring.

## HUM BIOL 427. Cancer Biology Laboratory. 1 Credit.

In this inquiry-based laboratory course, students will use molecular and cellular techniques to conduct research projects that examine the hallmark characteristics of cancer cells.
P: Hum Biol 426 or concurrent enrollment
Spring Even.

## HUM BIOL 444. Endocrinology. 3 Credits.

This course examines the major endocrine organs of the body and the processes that are controlled / integrated by hormones. Clinical examples of endocrine disease (e.g. diabetes, Graves disease) will be considered from the viewpoint of the insight they give to the understanding of endocrine physiology.
P: HUM BIOL 240 or HUM BIOL 221 \& HUM BIOL 222 with a grade of $C$ or better AND (either) HUM BIOL 402 or BIOLOGY 307
Spring.

## HUM BIOL 451. Biomechanics. 3 Credits.

This course introduces students to musculoskeletal biomechanics and the quantitative analysis of human movement. Topics covered will include rigidbody kinematics, dynamics, motion capture, external force measurement, electromyography, and mechanical properties of muscles, tendons, and bones.
P: HUM BIOL 351
Spring.

## HUM BIOL 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
HUM BIOL 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
HUM BIOL 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: Chem 207 and approval by faculty mentor.
HUM BIOL 497. Internship. 1-16 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
HUM BIOL 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
HUM BIOL 499. 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.

## Humanistic Studies (HUM STUD)

## Courses

## HUM STUD 100. Living the Humanities. 3 Credits.

This team-taught course introduces students to the Humanities as a way of study. By grappling with one of humanity's problems--such as the ethics of eating or our imprint on the environment--students explore various ways in which the strengths and values that are unique to the humanities can best prepare students for their future. Course is not repeatable for credit.
Fall and Spring.

## HUM STUD 110. Introduction to Film. 3 Credits.

Examines film as literature, as a visual and aural art, as technology, and as a medium which both reflects and influences social trends, values, and attitudes. Involves viewing a range of films and examining their place in film history.
Fall Only.

## HUM STUD 160. Introduction to Language. 3 Credits.

Study of language and linguistics, including basic principles and methods in structural linguistics, social and regional variation in language, historical change and introductory study of meaning.
Spring.
HUM STUD 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall and Spring.
HUM STUD 200. Introduction to Digital and Public Humanities. 3 Credits.
This course introduces students to the fields of digital and public humanities, with an emphasis on how we think about, and through, digital and public spaces. Students read, discuss, and write about humanities texts and artifacts, but also engage with the tools, platforms, methods, and projects of these emerging fields. Topics include curation, design, visualization, networked interaction, and collaborative research.
P: None. REC: Hum Stud 100
Fall Only.
HUM STUD 201. Introduction to the Humanities. 3 Credits.
Major methods and ideas of the humanities, examined in selected works of literature, philosophy and fine arts.
Spring.

## HUM STUD 210. Film and Society. 3 Credits.

The ways in which films reflect and influence society. Examines films for their social content and the social milieu of their creation, the ways in which different cultures use films and the cross-cultural influences which occur.

HUM STUD 213. Ethnic Diversity and Human Values. 3 Credits.
This course will explore some of the most fundamental questions of human values and meaning by studying the rich literature, history, and culture of one or more of the following groups of the United States: African American, American Indian, Asian American, and Latino. Course is not repeatable for credit.

## Fall and Spring.

HUM STUD 220. ESL: Listening and Speaking Across Cultures. 3-6 Credits.
Global and discrete listening and speaking skills for ESL students based on content in intercultural communication. Emphasis on note-taking, listening for main ideas and key details, organizing and delivering speeches, and participating effectively in debates and small and large group discussions. P : International student status or permission of instructor.
Fall Only.

## HUM STUD 299. 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.
HUM STUD 300. Intermediate Digital and Public Humanities. 3 Credits.
Students explore methods and approaches of the digital and public humanities in-depth, perform research, and complete work on a collaborative project.
P: Hum Stud 200
Fall Only.

## HUM STUD 309. Introduction to Film History and Theory. 3 Credits.

Art criticism is concerned with the ways in which perception influences artistic judgment. This course will be a survey of significant works, traditions, and movements of film and media history from cinema's beginnings to the present. Examines questions of what distinguishes cinema from other visual arts, considering theories of film aesthetics, meaning, and spectatorship from the classical to the contemporary era. Investigations may include issues of commerce, technology, authorship, genre, affect, transnationalism, race and ethnicity, gender, and cinema's intersection with theories of other arts.
REC: HUM STUD 110
Spring Even.

## HUM STUD 318. 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.

## HUM STUD 319. Second Language Acquisition \& Assessment. 3 Credits.

Overview of issues in second-language acquisition and assessment, 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.
Rec: Hum Stud 160.
Fall Only.

HUM STUD 320. Language and Identity. 3 Credits.
This course explores the role that language attitudes and ideologies as well as identity play in the speech and patterns of language use of native speakers as well as those acquiring a second language. We will address these issues in relation to various immigrant groups in the US, with a special focus on Hispanic communities across the US. In addition, within the broader picture, we will look at the question of language use and identity construction; that is, the social meaning that certain variations in language have (i.e. power and solidarity traits) and the use that native speakers make of these variables to construct an identity.
REC: HUM STUD 160 or EDUC 311 or EDUC 315.
Spring.

## HUM STUD 321. Sociolinguistics. 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: None. REC: Hum Stud 160.
Spring.

## HUM STUD 326. Non-Western Religions. 3 Credits.

The two major religions of the East, Hinduism and Buddhism: the richness, variety and flexibility of the faith and practice of Hinduism, with its belief in a multiplicity of gods and goddesses; and the various sects and schools of Buddhism--Theravadic, Mayahana, Zen and Tantric.
P: none; REC: jr st.
Spring Even.

## HUM STUD 333. Utopia and Dystopia. 3 Credits.

This course examines utopian and dystopian thought in literature, philosophy, politics, and social thought as well as attempts to realize utopian visions. The course focuses on the question of the value of utopian and dystopian thought in their historical and contemporary moments. What can utopia teach us about our society and the directions in which it may develop?
Spring Even.

## HUM STUD 334. The Ancient World. 3 Credits.

Focuses on aspects of the cultures and civilizations of the ancient world as reflected in its texts and fine arts.
P: jr st.
Fall Only.

## HUM STUD 335. The Medieval World. 3 Credits.

Focuses on the history, society, culture and values of the middle ages as reflected in its literature and fine arts.
P: jr st.
Spring.

## HUM STUD 336. The Renaissance. 3 Credits.

Explores human values as they appear in texts and fine arts in the 15th and 16th century European Renaissance.
P: jr st.
Fall Only.

## HUM STUD 337. The Age of Reason. 3 Credits.

Immerses in the ideas that fueled the enlightenment era in seventeenth and eighteenth century Europe. Focuses specifically on political turmoil amidst radical thinking, the revolution in the conduct of science, and the impact of these changes on the social world.
P: jr st.
Spring.
HUM STUD 343. International Cinema. 3 Credits.
This course explores international cinema and the filmic arts with particular attention to their diverse cultural, social and political contexts as a means of expanding students' knowledge of the human condition and human cultures throughout the world. Students will engage in critical analysis of filmmaking, film aesthetics and narrative structure, while developing a deepened appreciation for cross-cultural experiences and the ways cinema creates meaning. Spring Odd.
HUM STUD 350. Interdisciplinary Study of Great Works. 3 Credits.
Interdisciplinary study of one or more works central to the Humanistic tradition. Variable content.
P: jr st.
Fall and Spring.
HUM STUD 351. Interdisciplinary Themes in Humanities. 3 Credits.
Interdisciplinary examination of a single important theme in the Humanities. Variable content. Course is repeatable for credit if topics differ.
P: jr st.
Spring.

## HUM STUD 352. Literatures in Translation. 3 Credits.

A study of selected works of literatures in translation. A variable content course.
$P$ : jr st.

## HUM STUD 353. Latinx Culture. 3 Credits.

This course is an introduction to US Hispanic/ Latinx history, civilization, literature, and culture. The course is designed to provide an opportunity to understand cultural commonalities and differences of the people generally grouped in the United States under the single ethnic category of "Latinx/ Hispanic" and who have become the largest minority group. The course will focus on understanding sociological, historical and artistic productions and how they affect the construction of an ethnic identity and will address key issues regarding Latinx/Hispanic experiences in the US such as the constitution of ethnicity, language issues, immigration debates, the border/wall as a reality and as a symbol, the influence of media, visual and pop culture on the formation and marketing of an ethnic consciousness as well as other topics.
Spring.

## HUM STUD 356. German Culture. 3 Credits.

The culture of the German-speaking world from the earliest periods to the present with a focus on how contemporary Germany has been shaped by issues of history, religion, art, music, philosophy, and commerce.
Fall Odd.

## HUM STUD 360. Globalization and Cultural Conflict. 3 Credits.

This course examines the phenomenon of globalization and its impact on cultural identity as well as the conflicts in values and belief-systems that have arisen in its wake. We will explore the notion of a clash of civilizations and cultures with particular emphasis on the supposed clash between the West and the Islamic world.
REC: jr st
Spring Odd.

## HUM STUD 370 . Sustainability through the Humanities. 3 Credits.

This course offers a critical exploration of the problem of sustainability from the perspective of the humanities, including history, First Nations Studies, literature, and philosophy. The problem of environmental sustainability has at least as much to do with our cultures, histories, languages, and philosophies as it does with more concrete factors such as resource usage and pollution. To the extent that humanistic disciplines help us to expand and broaden how we comprehend the natural world, so too might they provide us with essential resources and tools with which to imagine and mount broad and value-infused solutions. This course will include a digital and public humanities project.
P: Junior Standing REC: HISTORY 220, PHILOS 220, or FNS 224
Spring.

## HUM STUD 375. Humanities, Business and Critical Thinking. 3 Credits.

The Humanities in general and literature in particular provide tools for critical thinking that produce a new level of discourse, often outside of author / artist intent. This course will analyze literary works from the advent of modern capitalism to the present to engage in discussions of literary representations of business and economic modals
REC: Major: Integrative Leadership Studies
Spring.

## HUM STUD 382. Romanticism to Modernism. 3 Credits.

Studies the challenge to tradition and reason and the response to that challenge from the development of romanticism in the late 18th century to the flowering of modernism in the early twentieth century.
REC: jr st.
Fall Only.
HUM STUD 383. Contemporary Cultural Issues. 3 Credits.
A study of contemporary cultural and social issues through historical, literary, philosophical, and artistic analysis. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: HISTORY 102. REC: jr st
Spring.
HUM STUD 384. Topics in World Cultures. 3 Credits.
Study of cultures and worldviews outside of Western Europe and the United States. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: none; REC: jr st.
Fall Only.
HUM STUD 400. Humanities Practicum. 3 Credits.
In this course students gain in-depth, hands-on experience by collaboratively creating humanities projects. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: None. REC: HUM STUD 200
Fall and Spring.

## HUM STUD 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## HUM STUD 480. Humanities Seminar. 3 Credits.

A capstone seminar for humanities majors, examining basic questions and issues in the humanities. Course will emphasize student participation and a substantial term paper. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: Junior Standing. REC: One or more courses in the Humanities, English, First Nations Studies, History, Modern Languages, or Philosophy. Fall Only.

## HUM STUD 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
HUM STUD 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## HUM STUD 499. 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.

## Information Sciences (INFO SCI)

## Courses

INFO SCI 198. First Year Seminar. 3 Credits.
Reserved for New Incoming Freshman.
INFO SCI 201. Information, Computers and Society. 3 Credits.
A survey of the social, legal and ethical impacts of computers on individuals and society.
Fall Only.

## INFO SCI 210. Information Problems. 3 Credits.

An introduction to understanding and solving information problems, including: a survey of the field of information science; practice in algorithmic thinking; techniques for finding, assessing, organizing, and presenting information; and confrontation with ethical and value issues.
Spring.

## INFO SCI 299. 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.
INFO SCI 302. Introduction to Data Science. 3 Credits.
This course provides an introduction to data science and provides an overview of useful data science tools. Topics covered will include tools, database management, retrieval and management of data, best practices for effectiveness and mitigating risk.
P: At least 18 credits in COMP SCI, INFO SCI or COMM
Fall and Spring.
INFO SCI 332. Mobile Platforms and Apps. 3 Credits.
This course has a cross-disciplinary emphasis and is suitable for INFO SCI, COMP SCI and COMM students. This course will incorporate a complete study and practice of the mobile applications world. Students will explore business models of application development and deployment. As crossdisciplinary teams, the students will design, develop and fully produce one real and unique app. While CS students will focus on the technical aspects of the product, other students in this course will focus on original content creation (such as art, news stories, social media, video games, videos, etc.).
P: At least 18 credits in COMP SCI, INFO SCI or COMM
Fall Only.

## INFO SCI 341. Survey of Gaming and Interactive Media. 3 Credits.

This course provides students with a thorough understanding of the history, study, of the modern video game industry and video games as a creative and communicative medium. Subjects covered in this course include the history of the industry in terms of its technological and economic development. Students will also analyze how video games have evolved and used more powerful multimedia capabilities to craft narratives and virtual worlds, and critically engage with game content to analyze games and break them down into component elements to understand what makes for good design. The course will also analyze the cultural and political impact of games from psychological effects to the debate over governmental regulation. The course will also provide students with the tools they need to succeed in a variety of professions in the video game industry, from journalism to development to public relations and beyond.
P : sophomore standing
Fall Only.

## INFO SCI 342. Game Design. 3 Credits.

This course will introduce students to the fundamentals, concepts and tools used in the development of board games, modern 2-D and 3-D real-time interactive computer video games. The fundamentals of video game creation begin with a study of board game creation. Topics covered include game design concepts, design documents, prototyping, artificial intelligence and game mechanics. Students will pitch, design and create their own games in this course.
P: sophomore standing
Spring.

## INFO SCI 390. Technical Writing. 3 Credits.

Scientific and technical writing for professional and lay audiences, including news articles and features, laboratory reports, training and procedure manuals, grant and contract proposals and technical reports.
P: Eng Comp 100 or 164 or ACT English score of 25 or higher; and completion of nat sci gen educ req.

## INFO SCI 410. Analytics and Information Problems. 3 Credits.

Practice in solving information problems and documenting skills for external audiences.
$P$ : senior status
Spring.

## INFO SCI 411. Statistical Techniques and Decision Modeling. 3 Credits.

This course develops an understanding of core and advanced statistical concepts used in data science. It builds on core statistical concepts covered in other foundational statistics courses. Topics include hypothesis testing, classical and Bayesian statistical inference, multiple regression, logistic regression, analysis of variance, and non-parametric methods. The course also introduces students to decision modeling techniques including Monte Carlo simulation, linear and non-linear optimization, decision trees, and risk analysis. The course includes hands-on exercises.
P: 15 credits of COMP SCI, INFO SCI, or COMM
Spring.

## INFO SCI 412. Data Mining and Predictive Analytics. 3 Credits.

The course discusses data mining and introduces students to machine learning concepts used in analytics. It provides the basics of building predictive models using structured and unstructured data and clustering, association, and classification techniques. It covers predictive modeling using regression, survival analysis, artificial neural networks, support vector machines, decision trees, and genetic algorithms. The courses involves hands-on exercises with WEKA, Python, and R.
P: MATH 260 or INFO SCI 302
Spring.

## INFO SCI 440. Information and Computing Science Practicum. 3 Credits.

A project course in which teams submit proposals to work in an information problem. Projects provide experience in leadership roles, resource allocation, scheduling, documentation, client relations, and presentation. Problems typically draw on a wider array of skills than in other individual classes.
P: sr st.
Fall and Spring.

## INFO SCI 443. Game Development. 3 Credits.

In this course, students will learn how to use a modern 3D game engine (e.g. Unreal Engine 4). They will learn about the art pipeline, the design pipeline, and the backend programming to make it all work. Game engine concepts such as scripting, AI, animations, sound, story, and gameplay behaviors will be covered in the lecture and labs. This is a hands-on capstone style course which is well suited to artists, designers, and programmers. During the course students will work together in game teams to demonstrate their learning through creating their own games.
P: 30 credits (sophomore standing) and COMP SCI 256 or DESIGN 231 or INFO SCI 342 or MUSIC 122 or ENGLISH 212
Fall Only.

## INFO SCI 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

INFO SCI 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
INFO SCI 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
Fall and Spring.
INFO SCI 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.

## P: jr st.

Fall and Spring.

## INFO SCI 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
INFO SCI 499. 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.

## Italian (ITALIAN)

## Courses

ITALIAN 101. Introduction to the Italian Language I. 4 Credits.
Development in basic ability in understanding, reading, speaking and writing Italian.
Fall Only.
ITALIAN 102. Introduction to the Italian Language II. 4 Credits.
Development in basic ability in understanding, reading, speaking and writing Italian.
REC: 1 yr. h.s. or 1 semester of college Italian.
Spring.

## Japanese (JAPANESE)

## Courses

JAPANESE 100. SNC Consortium. 4 Credits.
St. Norbert College course, extended to UWGB students through a consortium agreement.
JAPANESE 101. Elementary Japanese 1. 4 Credits.
An intensive introduction to practical Japanese with an emphasis placed on the four language skills: understanding, speaking, reading and writing. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
Fall Only.
JAPANESE 102. Elementary Japanese 2. 4 Credits.
Continuation of Japanese 101. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 101.
Spring.
JAPANESE 200. SNC Consortium. 4 Credits.
St. Norbert College course, extended to UWGB students through a consortium agreement.

## JAPANESE 203. Intermediate Japanese 1. 4 Credits.

Short basic readings, conversations, and grammar. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 102.
Fall Only.
JAPANESE 204. Intermediate Japanese 2. 4 Credits.
A continuation of JAPANESE 203 with emphasis on developing facility in oral and written expression. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 203.
Spring.
JAPANESE 300. SNC Consortium. 4 Credits.
St. Norbert College course, extended to UWGB students through a consortium agreement.
JAPANESE 305. Intermediate Reading, Conversation, and Composition. 4 Credits.
A continuation of JAPANESE 204 with emphasis on developing facility in oral and written expression. A cultural orientation prior to a study-abroad experience Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 204.

## JAPANESE 375. Japanese Civilization. 3 Credits.

A background of history, art and institutions as an aid to the understanding of Japanese thought in literature as well as culture and to appreciate the Japanese people. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 305 and 389.

## JAPANESE 389. Special Topic. 3 Credits.

Topics of special interest, dealing with Japanese literature, civilization or culture. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.
P: Japanese 305.

## JAPANESE 390. Advanced Conversation, Grammar and Composition. 4 Credits.

Emphasis on developing facility in oral expression based on literatures and cultures. Attention to phonetics, pronunciation and syntax. Development of more difficult and sophisticated patterns of expression. Course is offered at St. Norbert College and is not included in UWGB residency requirement for degree.

## Mathematics (MATH)

## Courses

MATH 94. Elementary Algebra. 3 Credits.
Intended as a preparation for Math 101. Topics include: properties of real numbers, exponents and polynomials, simplifying variable expressions, linear equations and inequalities, factoring, graphing, and basic quadratic equations. Offered on a pass/no credit, non-degree credit basis only.
Fall and Spring.

## MATH 97. Mathematics Study Skills. 1 Credit.

MATH 97 is a one credit course intended for students concurrently enrolled in MATH 99. This course will provide students with mathematics and problem-solving instruction and cover study skills strategies for succeeding in mathematics courses. Students will gain insights into how they learn mathematics through various activities and reflections. They will also receive any extra support needed so that they are successful in their MATH 99 course.
P: Concurrent enrollment in MATH 99
Fall and Spring.

## MATH 99. Intermediate Algebra. 2 Credits.

Intended as a preparation for Math 101. Topics include: functions, linear equations, quadratic equations, set operations, Venn diagrams, polynomials, rational functions, rational exponents, radicals. Offered on a pass/no credit, non-degree credit basis only.
P: MATH 94 with a P grade or WPT-MFND score greater than 415
Fall and Spring.
MATH 100. Math Appreciation. 3 Credits.
An exploration of the exciting, rich, practical, historical, and creative nature of mathematics, while emphasizing reasoning skills and problem-solving abilities. Core material includes probability/statistics, rational and irrational numbers, infinity, and additional topics chosen from other areas of modern mathematics.
Fall and Spring.

## MATH 101. Advanced Algebra. 2 Credits.

Absolute values, linear inequalities, system of linear equations in three variables, matrices, complex numbers, quadratic functions, exponential functions, logarithmic functions, sequences.
P: MATH 99 with a P grade or WPT-MFND test score > 465
Fall and Spring.
MATH 102. Quantitative Reasoning. 3 Credits.
This course is intended to develop analytic reasoning and the ability to solve quantitative problems. Topics to be covered include construction and interpretation of graphs, functional relationships, descriptive statistics, geometry and spatial visualization, math of finance, exponential growth, and basic probability. Appropriate use of units and dimensions, estimates, mathematical notation and available technology will be emphasized throughout the course.
P: MATH 94 with a P grade or WPT-MFND test score $>415$
Fall and Spring.
MATH 104. Precalculus. 4 Credits.
Functions and their graphs, the algebra of functions, polynomial functions, rational functions, exponential and logarithmic functions, trigonometric functions, analytic trigonometry, conic sections
P: MATH 101 with at least a C grade or WPT-MFND score $>465$ and WPT-AALG score $>525$
Fall and Spring.
MATH 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## MATH 202. Calculus and Analytic Geometry I. 4 Credits.

Differential and integral calculus of the elementary functions with associated analytic geometry; transcendental functions; techniques of integration; application.
P: MATH 104 with at least a C grade or WPT-MFND score $>465$ and WPT-AALG score $>525$ and WPT-TAG score $>525$
Fall and Spring.

## MATH 203. Calculus and Analytic Geometry II. 4 Credits.

Differential and integral calculus of the elementary functions with associated analytic geometry; transcendental functions; techniques of integration; application; sequences and series.
P: Math 202 with at least a C grade.
Fall and Spring.

## MATH 209. Multivariate Calculus. 4 Credits.

Real-valued functions of several variables; tangent and normal lines; chain rule for partial derivatives; extrema; least squares method; higher-ordered derivatives; integration; polar and cylindrical coordinates; spherical coordinates; vector fields; line integrals; physical applications.
P: Math 203 with at least a C grade.
Fall and Spring.
MATH 260. Introductory Statistics. 4 Credits.
Using statistical software, this course covers descriptive statistics, probability, the normal distribution, estimation, hypothesis testing, confidence intervals, chi-square tests for categorical data, correlation, and simple linear regression.
P: MATH 101 or higher with at least a C, or WPT-MFND score > 465 and WPT-AALG score > 525
Fall and Spring.

## MATH 299. 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.
MATH 305. Ordinary Differential Equations. 4 Credits.
First-order differential equations, equilibrium solutions and stability, linear equations of higher order, Fourier series and periodic solutions, Laplace transform methods, first-order linear systems of differential equations with constant coefficients, eigenvalues and boundary value problems.
$P$ : Math 203 with at least a C grade.
Fall and Spring.
MATH 306. Statistical Programming. 3 Credits.
This course is intended to teach critical concepts and develop skills in statistical programming, in conjunction with hands-on analysis of real-world datasets. Topics include data manipulation, handling different data types and data structures, data cleaning, exploratory data analysis and visualization, simulations, control structures, generating analytical reports, and tools for implementing reproducible research. R and SAS statistical software packages are introduced and used.
P: MATH 260 with at least a C grade
Spring.

## MATH 314. Proofs in Number Theory and Topology. 3 Credits.

The skills necessary to read and write theoretical mathematics with basic material of Number Theory and Topology that will be needed for further study in theoretical mathematics.
P: Math 202 with at least a C grade; REC: Math 320.
Spring.

## MATH 320. Linear Algebra and Matrix Theory. 4 Credits.

Matrices and vector space concepts, linear dependence and independence, systems of linear equations, linear transformations, determinants, eigenvalues and eigenvectors, orthogonality and least squares, symmetric matrices and quadratic forms, spectral decompositions.
P: MATH 202 with at least a C grade. REC: MATH 314
Spring.

## MATH 323. Analysis. 4 Credits.

The real number system, sequences of real numbers and their generalizations to real-valued functions, series of real numbers, continuity of a function, the theory of differentiation, the theory and development of the Riemann integral, Picard's theorem.
P: Math 209 with at least a C grade and 314 with at least a C grade.
Fall Only.
MATH 328. Abstract Algebra. 3 Credits.
Groups, rings, and fields as organizing ideas. Basic structure theorems. Applications.
P: MATH 314 with at least a C grade and MATH 320 with at least a C grade
Fall Only.
MATH 329. Applied Regression Analysis. 4 Credits.
Techniques for fitting regression models are developed and applied to data using statistical software. Topics include simple linear regression, multiple regression, inference, regression diagnostics, remedial measures, model selection, logistic regression, and an introduction to nonlinear regression models.
P: MATH 260 with at least a C, MATH 306 with at least a C, and MATH 320 with at least a C
Fall Only.

## MATH 355. Applied Mathematical Optimization. 3 Credits.

Introduction to mathematical optimization: mathematical modeling of optimization problems, analytical and numerical optimization techniques, applications. Linear programming: simplex method, duality, integer programming; nonlinear programming: Lagrange multipliers, Karush-Kuhn-Tucker optimality conditions, convexity; approximation techniques: line search methods, gradient methods, conjugate gradient methods; variational problems; dynamic programming; optimal control.
P: MATH 209 with at least a C grade AND MATH 320 with at least a $C$ grade or concurrent enrollment
Spring.

## MATH 360. Theory of Probability. 3 Credits.

Probability concepts and counting techniques; expected value; discrete, continuous, and multivariate probability distributions; moments and momentgenerating functions; transformations and functions of random variables; and the Central Limit Theorem.
P: Math 209 with at least a C grade.
Fall Even.

## MATH 361. Mathematical Statistics. 3 Credits.

Properties of point estimators (bias, consistency, sufficiency), methods of estimation (method of moments, maximum likelihood estimation), hypothesis testing and interval estimation, power, likelihood ratio tests, chi-square tests, and nonparametric statistics.
P: MATH 360 with at least a C grade
Spring Odd.
MATH 385. Foundations of Geometry. 3 Credits.
Intuitive and deductive introductions to Euclidean, non-Euclidean, transformation, fractal, and projective geometries and their applications
P: Math 314 with at least a C grade.
Spring.

## MATH 406. Partial Differential Equations. 3 Credits.

Classification of partial differential equations; solution of standard partial differential equations - transport equation, Laplace's equation, Poisson's equation, heat equation, wave equation; method of characteristics, initial and boundary value problems, separation of variables, Sturm-Liouville theory, integral transform methods, d'Alembert formula, Green's functions, numerical solutions, applications in science and engineering.
P: MATH 209 with at least a C grade and MATH 305 with at least a C grade.
Spring Odd.

## MATH 410. Complex Analysis. 3 Credits.

Algebra and geometry of complex numbers; analytic functions, elementary transformations, integration, Taylor and Laurent series, contour integration, residues, conformal mapping.
P: Math 209 with at least a C grade.
Spring Even.

## MATH 430. 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: MATH 202 with at least a C, MATH 260 with at least a C, and MATH 306 with at least a C.
Spring Even.
MATH 431. 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: MATH 260 with at least a C, MATH 306 with at least a C, MATH 320 with at least a C, and MATH 329 with at least a C
Spring Odd.

## MATH 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## MATH 492. Special Topics in Mathematics. 1-4 Credits.

This course brings together students and professors who have a mutual interest in some topic not otherwise available among the usual mathematics and statistics offerings.

MATH 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
MATH 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## MATH 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
MATH 499. 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.

## Management (MGMT)

## Courses

MGMT 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
MGMT 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## MGMT 380. International Business Management. 3 Credits.

The course takes both micro and macro-level perspectives of organizations and delves into the field of international business. It gives a student a fundamental understanding of the international operating context and looks at strategies, and structures for dealing with the challenges and opportunities arising in global markets.
P: 15 credits completed
Spring.

## MGMT 389. Organizational Behavior. 3 Credits.

A micro organizational behavior course examining motivation, leadership, job satisfaction, learning, group dynamics, and stress in the organizational setting.
Fall and Spring.

## MGMT 452. Teams. 3 Credits.

The course explores the design and management of organizational teams and work groups. It examines the components of effective teams and enhances teamwork skills and expertise. Topics include group composition, goals, processes, team behaviors, team leadership, team performance and technological tools. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge. P: MGMT 389
Spring.

## MGMT 460. Leading Innovation and Change. 3 Credits.

The course helps students develop skills to lead teams and organizations to achieve innovative outcomes. Students will develop an understanding of the factors that lead to successful management of innovation including overcoming barriers to innovation, leading innovation and developing and nurturing an innovative culture. Students learn how organizations respond to change and how to manage change throughout different organizational levels. They will understand the role of change agents and all aspects of change management including planning and performance, communication structures, and politics, among others.
P: MGMT 389
Fall and Spring.

## MGMT 461. Diversity in Organizations. 3 Credits.

The course introduces students to an overview of diversity in business and the issues, challenges, and opportunities presented by this diversity. It focuses on understanding, sensitivity, and appreciation for cultural differences. Students will learn about diversity in all forms including race, ethnicity, gender, religion, sexual orientation, appearance, age, ability and class. Additionally students will learn about the specific behaviors and skills needed to shape an inclusive climate and how to manage diversity as a leader.
P: MGMT 389
Fall Only.

## MGMT 472. Leadership Development. 3 Credits.

This course provides a framework for lifelong leadership development to ensure students can make an impact on both personal and organizational success. Students will build their leadership potential by developing critical leadership competencies needed to think strategically, coach and develop organizational talent, lead people through change, and influence people toward mutually beneficial outcomes. An emphasis will be placed on understanding that leadership development is an ongoing process throughout one's career. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: MGMT 389
Fall and Spring.
MGMT 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## MGMT 479. Organizational Culture \& Design. 3 Credits.

A macro-organizational course examining the use of organizational design as a tool for organizing business processes and developing organizational capabilities. The course focuses on organizational environments, structure, power and politics, conflict, innovation, technology, and culture.
P: MGMT 389
Fall and Spring.

## MGMT 482. Capstone in Business Strategy. 3 Credits.

The course focuses on the formulation, selection and implementation of business strategies through assessment of organizational performance; competitive, market and industry analysis; development of strategic positions and identification of strategic opportunities. Students practice strategic thinking for a cross section of business types from small, closely held to coprorate, publicly-held, multiple business enterprises. The concepts and ideas of the course are explored through the analysis of case studies. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: 95 credits; and ACCTG 202; ECON 202, ECON 203, or ECON 208; MKTG 322 or ECON 303; FIN 343 or ECON 330; MGMT 389 or ECON 485; and Accounting, Business Administration, Finance, HR Management, Management, Marketing, Economics major; and a min GPA of 2.5
Fall and Spring.
MGMT 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## MGMT 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: jr st.

## MGMT 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## MGMT 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Military Science (MIL SCI)

## Courses

## MIL SCI 101. Leadership and Military Science I. 2 Credits.

This is an introductory course designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. The lab provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally, students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques.
Fall Only.
MIL SCI 102. Leadership and Military Science II. 2 Credits.
This course is an orientation to leadership theory and the fundamentals of decision-making process by learning how to solve problems and develop critical thinking skills. Students develop followership skills and the ability to learn goal-setting techniques while working in a group interaction setting. The lab continues to provide basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance and squad battle drills. Students are introduced to the operations order format.
Spring.

## MIL SCI 103. Introduction to Military Science I. 1 Credit.

An introductory course designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. The course provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques. Students are eligible to attend Fox Valley Battalion events to include; Ranger Challenge, Commanders Cup competition and the Military Dining In.
Fall Only.

## MIL SCI 104. Introduction to Military Science II. 1 Credit.

Further development of leadership skills and the orientation of the ROTC program designed to focus on the fundamental components of service as an officer in the United States Army. Students are familiarized with individual values, leadership traits and the fundamentals of officer ship. Students also learn "life skills" of physical fitness, communication applications, both oral and written, as well as interpersonal relationships. the course provides basic instruction on squad movement techniques and the six-squad tactical missions of patrolling, attack, defense, ambush, reconnaissance, and squad battle drills. Additionally students learn basic map reading, first aid, physical fitness, and military formations to include basic marching techniques. Students are eligible to attend Fox Valley Battalion events to include: Ranger Buddy, Northern Warfare Challenge, Norwegian Foot March, German Armed Forces Badge Competition and the Military Ball.
Spring.

## MIL SCI 183. Military Conditioning. 1 Credit.

Students participate in the United States Army's military conditioning and fitness program designed to develop both individual fitness and the leadership skills and knowledge essential to the management of an effective organizational physical fitness program. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall and Spring.

## MIL SCI 201. Basic Leadership and Management I. 3 Credits.

Students learn how to resolve ethical problems by applying leadership theory and principles. Students learn self-development techniques such as the importance of stress management, time management and the ability to solve problems. Lastly, students apply communication theory and skills in a leadership study focusing on problem solving. The lab applies basic leadership theory and decision making during practical exercises in a field environment. Students continue to develop basic map reading, first aid, physical fitness and military formations to include basic march techniques. P: Mil Sci 101 and Mil Sci 102
Fall Only.

## MIL SCI 202. Basic Leadership and Management II. 3 Credits.

Students focus primarily on leadership with an extensive examination of the unique purpose, roles and obligations of commissioned officers. Students also focus, in detail, on the origin of our institutional values and their practical application in the decision-making process and leadership theory. Students use case studies to learn the Army's ethical decision-making process. The lab continues to apply basic leadership theory and decision making during practical exercises in a field environment. Students continue to develop basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101 and Mil Sci 102
Spring.

## MIL SCI 301. Advanced Leadership and Management I. 4 Credits.

Students are introduced to the Leader Development Program that will be used to evaluate their leadership performance and provide developmental feedback for the remainder of their cadet years. Cadets are taught how to plan and conduct individual and small unit training, as well as basic tactical principles. Cadets will also learn reasoning skills and the military specific application of these skills in the form of the Army's troop. The lab reinforces small unit tactical training while employing the troop leading procedure to accomplish planning and decision-making. Students continue to learn basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101, 102, 201, and 202
Fall Only.

## MIL SCI 302. Advanced Leadership and Management II. 4 Credits.

The course focus is doctrinal leadership and tactical operations at the small unit level. Students are provided opportunities to plan and conduct individual and collective training for Army operations. Synthesizing training, leadership and team building is the primary focus. Upon completion, students possess the fundamental confidence and competence of leadership in a small unit setting. The lab continues reinforcing small unit tactical training while employing the troop leading procedures to accomplish planning and decision-making. Students also continue basic map reading, first aid, physical fitness and military formations to include basic march techniques.
P: Mil Sci 101, 102, 201 and 202
Spring.

## MIL SCI 401. Applied Leadership and Management I. 4 Credits.

This course concentrates on leadership, management and ethics to begin the final transition from cadet to lieutenant. Students focus on attaining the knowledge and proficiency in several critical areas they need to operate effectively as Army Officers. These areas include coordinating activities with staff, counseling theory and practice within the "Army Context," training management and ethics. Students develop and possess the fundamental skills, attributes and abilities to operate as competent leaders in a cadet battalion. They must confidently communicate to subordinate cadets their preparedness to shoulder the responsibilities entrusted to them.
P: Mil Sci 301 and Mil Sci 302
Fall Only.

## MIL SCI 402. Applied Leadership and Management II. 4 Credits.

Students learn the legal aspects of decision-making and leadership. Instruction introduces the student to the organization of the Army from the tactical to the strategic level. Students learn administrative and logistical management focusing on the fundamentals of soldier and unit level support. Practical exercises require the student, both individually and collectively, to apply their knowledge to solve problems and confront situations commonly faced by junior officers. The lab continues to sharpen the students' leadership skills. Students normally change leadership positions to hone their skills, attributes and abilities as leaders. Again, they must confidently communicate to subordinate cadets their preparedness to shoulder the responsibilities entrusted to them.
P: Mil Sci 301 and Mil Sci 302
Spring.

## MIL SCI 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.

## Marketing (MKTG)

## Courses

MKTG 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall Only.

## MKTG 297. Internship. 1 Credit.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit; may be taken 3 times for a total of 6 credits.

## MKTG 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## MKTG 322. Principles of Marketing. 3 Credits.

The marketing system and the managerial techniques used to market goods, services and organizations. Relationships between marketing activities and economic, political and social institutions; understanding consumer behavior; product, price, promotion and distribution decisions.
P: Sophomore status
Fall and Spring.

## MKTG 327. Selling and Sales Management. 3 Credits.

Principles and techniques of successful selling that lead to a mutually profitable relationship between salesperson and customer. The nature and scope of sales management: selecting and training sales personnel, importance of customer satisfaction, relationship of company philosophy to the sales force, fundamentals of communication processes.
P: MKTG 322
Fall Only.

## MKTG 345. Digital Marketing. 3 Credits.

The course examines marketing from a digital marketing perspective. It helps students to get a detailed understanding of all digital marketing strategies like online advertising, digital display, video, mobile, and search engine management. Students will learn to develop, evaluate, and execute a comprehensive digital marketing strategy and plan. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: Sophomore status
Fall and Spring.

## MKTG 421. International Marketing. 3 Credits.

The course is designed to help students explore the global market via the disciplines of economics, cultural studies, geography, history, languages, jurisprudence, demographics, politics, and many others. The opportunities and the threats that emanate from the global marketplace are highlighted, and the need for an international marketing approach on the part of individuals and institutions is emphasized.
P: MKTG 322 and an overall minimum GPA of 2.5
Fall and Spring.

## MKTG 423. Advertising. 3 Credits.

Developing and executing advertising campaigns; how these campaigns fit into the total marketing mix; social, legal, and economic considerations and constraints involved in the advertising campaign planning process. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: MKTG 322
Fall and Spring.
MKTG 424. Research Methods. 3 Credits.
This marketing course focuses on different techniques of obtaining and analyzing information about marketing problems; obtaining and interpreting data from primary and secondary sources for business decisions that deal with different aspects of marketing.
P: BUSAN 220 or MATH 260 and MKTG 322 or consent of the instructor
Spring.

## MKTG 426. Marketing Strategy. 3 Credits.

Advanced level course in marketing. Strategic interrelationships, development of analytical techniques and abilities and decision making in marketing.
P: MKTG 322
Spring.

## MKTG 428. Consumer Behavior. 3 Credits.

Theories of buyer behavior, including ultimate and industrial customers, and their implications for marketing management.
P: MKTG 322
Fall and Spring.
MKTG 447. Social Media Marketing and Analytics. 3 Credits.
The course introduces fundamentals of social media marketing. The course examines the basics of social media marketing, highlights the importance, and introduces contemporary resources to students. Topic covered include social media platforms (e.g., Facebook, Twitter, Instagram, YouTube), advertising on social media platforms, content analyses, content development, influencer marketing, and social media marketing plans. The course adopts a hands-on approach combining lectures with experiential learning and industry certifications
P: Sophomore standing
Fall Only.

## MKTG 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## MKTG 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
MKTG 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.

## P: jr st.

## MKTG 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

MKTG 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Music Applied (MUS APP)

## Courses

MUS APP 11. Keyboard Musicianship I. 1 Credit.
Instruction in basic keyboard skills to include scales, chords, simple accompaniments, and beginning to intermediate solo literature.
Fall Only.
MUS APP 13. Advanced Keyboard Musicianship. 1 Credit.
Practical study of harmony, figured bass, score reading and improvisation at the piano.
P: Completion of or concurrent enrollment in MUSIC 152.
Spring.
MUS APP 21. Keyboard Musicianship II. 1 Credit.
Instruction in basic keyboard skills to include scales, chords, simple accompaniments, improvisation, and beginning to intermediate solo literature. P: None. REC: MUS APP 11
Spring.

## MUS APP 31. Keyboard Musicianship III. 1 Credit.

Instruction in basic keyboard skills to include scales, chords, simple accompaniments, and beginning to intermediate solo literature.
P: None. REC: MUS APP 21
Fall Only.
MUS APP 41. Keyboard Musicianship IV. 1 Credit.
Instruction in basic keyboard skills to include scales, chords, etudes, and performance, transposition and improvisation of accompaniments.
P: None. REC: MUS APP 31
Spring.

## MUS APP 45. Elementary Voice I. 1 Credit.

Beginning level instruction in vocal health, and the physiology and techniques of singing. Use of the singing voice in teaching music is a course component.
P: Music 151 or conc enr.
Fall and Spring.
MUS APP 69. Elementary Guitar. 1 Credit.
This course is designed to build a technical and musical vocabulary for effective use of the guitar as an accompanying instrument in the music classroom. Basic instruction on the Ukulele will also be included.
P: MUSIC 253 and must provide guitar.
Spring.

## MUS APP 101. Keyboard Lessons 1. 1-2 Credits.

Students study the solo literature of keyboard instruments through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 151 or 152; Conc Enr in MUS ENS 241 or 261 or 262
Fall and Spring.
MUS APP 102. Keyboard Lessons 2. 1-2 Credits.
Students study the solo keyboard literature through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 151 or MUSIC 152; Conc Enr in MUS ENS 241 or MUS ENS 261 or MUS ENS 262; Minimum grade of C in MUS APP 101
Fall and Spring.

## MUS APP 105. Voice Lessons 1. 1-2 Credits.

Students study the solo literature of their voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply. Course is repeatable for credit; may be taken for a total of 2 credits.
P: Conc enr in or completion of MUSIC 151 or 152; Conc Enr in MUS ENS 261 or 262 (TERM SPECIFIC)
Fall and Spring.

## MUS APP 106. Voice Lessons 2. 1-2 Credits.

Students study the solo literature of their voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 151 or MUSIC 152; Conc Enr in MUS ENS 261 or MUS ENS 262; Minimum grade of C in MUS APP 105. Fall and Spring.

MUS APP 127. Instrumental Lessons 1. 1-2 Credits.
Students study the solo literature through private instruction. The development of technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 151; Conc enr in MUS ENS 241 REC: Conc enr in MUSIC 115
Fall and Spring.

## MUS APP 128. Instrumental Lessons 2. 1-2 Credits.

Students study the solo literature through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 152; Conc enr in MUS ENS 241; Minimum grade of C in MUS APP 127. REC: Conc enr in MUSIC 116. Fall and Spring.

MUS APP 201. Keyboard Lessons 3. 1-2 Credits.
Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 253 or MUSIC 254; Conc Enr in MUS ENS 241 or MUS ENS 261 or MUS ENS 262 or MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 102
Fall and Spring.
MUS APP 202. Keyboard Lessons 4. 1-2 Credits.
Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 253 or MUSIC 254; Conc Enr in MUS ENS 241 or MUS ENS 261 or MUS ENS 262 or MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 201
Fall and Spring.

## MUS APP 205. Voice Lessons 3. 1-2 Credits.

Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 253 or MUSIC 254; Conc Enr in MUS ENS 261 or MUS ENS 262; Minimum grade of C in MUS APP 106. Fall and Spring.

## MUS APP 206. Voice Lessons 4. 1-2 Credits.

Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 253 or MUSIC 254; Conc Enr in MUS ENS 261 or MUS ENS 262 or MUS ENS 461 or MUS ENS 462 ; Minimum grade of C in MUS APP 205.
Fall and Spring.
MUS APP 227. Instrumental Lessons 3. 1-2 Credits.
Students study the solo literature through private instruction. The development of proper technique, historically accurate interpretations, and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 253; Conc Enr in MUS ENS 241 or 441; Minimum grade of C in MUS APP 128.
Fall and Spring.

## MUS APP 228. Instrumental Lessons 4. 1-2 Credits.

Students study the solo literature of percussion through private instruction. The development of proper technique, stylistically appropriate interpretations, and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 254; Conc Enr in MUS ENS 241 or 441; Minimum grade of C in MUS APP 227. REC: Conc enr in MUSIC 354. Fall and Spring.

## MUS APP 299. 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.
MUS APP 301. Keyboard Lessons 5. 1-3 Credits.
Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 or MUSIC 354; Conc enr in MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 202
Fall and Spring.

## MUS APP 302. Keyboard Lessons 6. 1-3 Credits.

Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 or MUSIC 354; Conc Enr in MUS ENS 241 or MUS ENS 261 or MUS ENS 262 or MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum Grade of $C$ in MUS APP 301
Fall and Spring.
MUS APP 305. Voice Lessons 5. 1-3 Credits.
Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 or MUSIC 354; Conc Enr in MUS ENS 261 or MUS ENS 262 or MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 206.
Fall and Spring.
MUS APP 306. Voice Lessons 6. 1-3 Credits.
Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 or MUSIC 354; Conc Enr in MUS ENS 261 or MUS ENS 262 or MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 305.
Fall and Spring.

## MUS APP 327. Instrumental Lessons 5. 1-3 Credits.

Students study the solo literature of percussion through private instruction. The development of proper technique, stylistically appropriate interpretations, and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353; Conc enr in MUS ENS 441; Minimum grade of C in MUS APP 228.
Fall and Spring.
MUS APP 328. Instrumental Lessons 6. 1-3 Credits.
Students study the solo literature through private instruction. The development of proper technique, stylistically appropriate interpretations, and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 354; Conc enr in MUS ENS 441; Minimum grade of C in MUS APP 327.
Fall and Spring.

## MUS APP 396. Junior Recital. 0 Credits.

Required of students pursuing the B.M. degree. An elective course for any other student who qualifies.
P: Music major and concurrent enrollment in Mus App 302, 306, or 328.
Fall and Spring.
MUS APP 401. Keyboard Lessons 7. 1-3 Credits.
Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 \& MUSIC 354; Conc Enr in MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum grade of $C$ in MUS APP 302
Fall and Spring.
MUS APP 402. Keyboard Lessons 8. 1-3 Credits.
Students study the solo literature of the piano through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353 or MUSIC 354; Conc Enr in MUS ENS 441 or MUS ENS 461 or MUS ENS 462; Minimum grade of $C$ in MUS APP 401
Fall and Spring.

## MUS APP 405. Voice Lessons 7. 1-3 Credits.

Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: MUSIC 353 \& MUSIC 354; Conc Enr in MUS ENS 461 or MUS ENS 462; grade of C or better in MUS APP 306.
Fall and Spring.
MUS APP 406. Voice Lessons 8. 1-3 Credits.
Students study the solo literature of voice through private instruction. The development of proper technique and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: MUSIC 353 \& MUSIC 354; Conc Enr in MUS ENS 461 or MUS ENS 462; Minimum grade of C in MUS APP 405.
Fall and Spring.

MUS APP 427. Instrumental Lessons 7. 1-3 Credits.
Students study the solo literature through private instruction. The development of proper technique, stylistically appropriate interpretations, and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 353; Conc enr in MUS ENS 441; Minimum grade of C in MUS APP 328.
Fall and Spring.
MUS APP 428. Instrumental Lessons 8. 1-3 Credits.
Students study the solo literature through private instruction. The development of proper technique, stylistically appropriate interpretations and a mature tone are significant components. Placement is by audition. Special enrollment restrictions apply.
P: Conc enr in or completion of MUSIC 354; Conc enr in MUS ENS 441; Minimum grade of C in MUS APP 427.
Fall and Spring.

## MUS APP 496. Senior Recital. 1 Credit.

Students will research historical, social, cultural, and/or musically significant aspects of the literature they perform. The research will be presented in performance, writing, and/or other media. Students will be responsible for developing and carrying out a promotional plan for their recital. Required of students pursuing the B.M. degree with an emphasis in performance.
P: Music major and concurrent enrollment in Mus App 402, 406, or 428.
Fall and Spring.
MUS APP 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
MUS APP 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Music Ensemble (MUS ENS)

## Courses

MUS ENS 142. Jazz Combo. 1 Credit.
Combos are open to all students by audition. Groups consist of rhythm section plus three or four horns. Students are required to arrange standard tunes or compose original tunes for the ensemble. Combos perform both on and off campus.
$P$ : audition.
Fall and Spring.
MUS ENS 143. Jazz Ensemble. 1 Credit.
Jazz ensembles are open to all students by audition. The literature performed includes traditional swing and many other contemporary styles. The ensembles rehearse regularly and perform on and off campus.
P : audition.
Fall and Spring.
MUS ENS 144. Woodwind Ensemble. 1 Credit.
This ensemble performs a variety of literature from the Baroque to the present, specializing in works for small ensembles including: saxophone quartet, woodwind quintet, clarinet trios, flute trios, choirs of instruments, and mixed ensembles. This ensemble is open to all students by audition.
P: audition.
Fall and Spring.
MUS ENS 145. Brass Ensemble. 1 Credit.
Brass ensemble is open to students of all majors who have proficiency on a brass instrument. The instrumentation is flexible, performing music that ranges from brass choirs and large fanfares to chamber music such as quintets, duets, and trios.
P: Audition
Fall Only.
MUS ENS 146. Contemporary Percussion Ensemble. 1 Credit.
The Contemporary Percussion Ensemble performs the most serious literature written for this genre. Its repertory centers around music by American composers. University-owned equipment is provided. Open to all university students by audition.
P : audition.
Fall and Spring.

## MUS ENS 147. World Pop Ensemble. 1 Credit.

World Pop Ensemble is open to any instrumentalist or vocalist by audition. The course focuses on study and performance of popular music styles built around medium-sized ( $6-12$ players) groups using mostly traditional European instruments. Repertoire will be chosen from many styles, including but not limited to: Balkan brass, New Orleans funk, Afropop, Polka, Klezmer, Blues, and Tango. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall Only.
MUS ENS 150. New Music Ensemble. 1 Credit.
This chamber ensemble is open to all university students by audition. It performs music composed since 1945. A variety of styles are explores which include avant garde, graphic, serial, neoclassic, minimalist, and new-romantic.
P: Audition
Spring.

## MUS ENS 151. Chamber Strings. 1 Credit.

The Chamber Strings course aims to expose students to a diverse range of String Chamber music literature while fostering their musical abilities. It caters to both individuals without existing groups and those seeking to enhance their existing musical collaborations. The curriculum features a wide selection of works ranging from classical to contemporary pieces. Moreover, the course also emphasizes the development of technical skills, score reading, and music history knowledge. May be repeatable for credit.
P: Audition
Fall and Spring.

## MUS ENS 163. Chamber Singers. 1 Credit.

Chamber Singers is an auditioned select choral ensemble open to all students. Its repertory consists of music suitable for small chamber choirs, including Renaissance Madrigals, Chansons and Lieder, Romantic Partsongs, and selected music from other style periods.
$P$ : audition.
Fall and Spring.
MUS ENS 165. Vocal Jazz Ensemble. 1 Credit.
Vocal jazz is open to all students by audition. The ensemble is limited to 20 voices plus rhythm section. Students perform standard jazz literature in a group and solo setting, improvise using scat singing and study contemporary singing styles. The ensemble performs on and off campus.
$P$ : audition.
Fall and Spring.

## MUS ENS 166. Opera Workshop. 1 Credit.

This course involves the preparation and performance of opera, operetta, or musical theatre repertoire. The class is designed for the singing actor/ actress. Course is repeatable for credit.
P: audition. REC: MUS APP 45 or MUS APP 105 or THEATRE 190
Spring.
MUS ENS 188. Hand Drumming Ensemble. 1 Credit.
The Hand Drumming Ensemble is a 15 -member ensemble which performs music based on the traditional music of West Africa, Cuba, and South America. University-owned equipment is provided. This course is open to all university students by audition.
$P$ : audition.
Fall and Spring.
MUS ENS 241. Bands and Orchestra. 1 Credit.
Wind Ensemble: The UW Green Bay Wind Ensemble is the Premier concert band of the University. Repertoire is challenging, and emphasizes individual responsibility for part preparation. Members are expected to dedicate time to practice outside of rehearsals. Membership in the Wind Ensemble is by audition. Qualified students from all majors are encouraged to audition. Symphonic Band: The Symphonic Band is comprised of a diverse population of students, including music and non-music majors. The band performs high quality and entertaining literature, emphasizing musical growth, and comprehensive understanding of musical issues. Auditions are optional. University Orchestra is comprised of strings (violin, viola, cello, and string bass) that rehearse together as a string orchestra, and also with the winds and percussion of the Wind Ensemble. Auditions are optional.
P : audition.
Fall and Spring.

## MUS ENS 261. University Singers. 1 Credit.

An auditioned choral ensemble open to qualified students from all majors. The University Singers perform high quality repertoire drawn from a wide variety of periods and styles. Emphasis is placed on developing good choral tone, strengthening musical skills, and fostering a comprehensive understanding of the literature studied.
$P$ : audition.
Fall and Spring.

## MUS ENS 262. Concert Choir. 1 Credit.

Concert Choir is the premier choral ensemble of the University. Membership is determined by a rigorous audition with an emphasis on sightreading skills. The repertoire, drawn from a wide variety of periods and styles, is extremely challenging and requires a great deal of individual preparation.
P: audition.
Fall and Spring.

MUS ENS 313. Keyboard Accompanying. 1 Credit.
Applied study in vocal and/or instrumental accompanying for pianists.
P: Completion of MUS APP 102, must be music major or music minor.
Fall and Spring.

## MUS ENS 342. Jazz Combo. 1 Credit.

Combos are open to all students by audition. Groups consist of rhythm section plus three or four horns. Students are required to arrange standard tunes or compose original tunes for the ensemble. Combos perform both on and off campus.
$P$ : Junior status and audition
Fall and Spring.
MUS ENS 343. Jazz Ensemble. 1 Credit.
Jazz ensembles are open to all students by audition. The literature performed includes traditional swing and many other contemporary styles. The ensembles rehearse regularly and perform on and off campus.
P: jr st and audition.
Fall and Spring.
MUS ENS 344. Woodwind Ensemble. 1 Credit.
This ensemble performs a variety of literature from the Baroque to the present, specializing in works for small ensembles including: saxophone quartet, woodwind quintet, clarinet trios, flute trios, choirs of instruments, and mixed ensembles. This ensemble is open to all students by audition.
P: jr st and audition.
Fall and Spring.

## MUS ENS 345. Brass Ensemble. 1 Credit.

Brass ensemble is open to students of all majors who have proficiency on a brass instrument. The instrumentation is flexible, performing music that ranges from brass choirs and large fanfares to chamber music such as quintets, duets, and trios.
P: Junior Status and audition
Fall Only.
MUS ENS 346. Contemporary Percussion Ensemble. 1 Credit.
The Contemporary Percussion Ensemble performs the most serious literature written for this genre. Its repertory centers around music by American composers. University-owned equipment is provided. This class is open to all university students by audition.
P: jr st and audition.
Fall and Spring.
MUS ENS 347. World Pop Ensemble. 1 Credit.
World Pop Ensemble is open to any instrumentalist or vocalist by audition. The course focuses on study and performance of popular music styles built around medium-sized ( $6-12$ players) groups using mostly traditional European instruments. Repertoire will be chosen from many styles, including but not limited to: Balkan brass, New Orleans funk, Afropop, Polka, Klezmer, Blues, and Tango. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall Only.
MUS ENS 350. New Music Ensemble. 1 Credit.
This chamber ensemble is open to all university students by audition. It performs music composed since 1945. A variety of styles are explores which include avant garde, graphic, serial, neoclassic, minimalist, and new-romantic.
P: Junior status and audition
Spring.

## MUS ENS 363. Chamber Singers. 1 Credit.

Chamber Singers is an auditioned select choral ensemble open to all students. Its repertory consists of music suitable for small chamber choirs, including Renaissance Madrigals, Chansons and Lieder, Romantic Partsongs, and selected music from other style periods.
P: jr st and audition.
Fall and Spring.
MUS ENS 365. Vocal Jazz Ensemble. 1 Credit.
Vocal jazz is open to all students by audition. The ensemble is limited to 20 voices plus rhythm section. Students perform standard jazz literature in a group and solo setting, improvise using scat singing and study contemporary singing styles. The ensemble performs on and off campus.
P: jr st and audition.
Fall and Spring.
MUS ENS 366. Opera Workshop. 1 Credit.
This course involves the preparation and performance of opera, operetta, or musical theatre repertoire. The class is designed for the singing actor/ actress.
P: $j r$ st and audition. REC: MUS APP 105 or MUS APP 45 or THEATRE 190
Spring.

MUS ENS 388. Hand Drumming Ensemble. 1 Credit.
The Hand Drumming Ensemble is a 15 -member ensemble which performs music based on the traditional music of West Africa, Cuba, and South America. University-owned equipment is provided. This course is open to all university students by audition.
$P$ : audition.
Fall and Spring.
MUS ENS 441. Bands and Orchestra. 1 Credit.
Wind Ensemble: The UW Green Bay Wind Ensemble is the Premier concert band of the University. Repertoire is challenging, and emphasizes individual responsibility for part preparation. Members are expected to dedicate time to practice outside of rehearsals. Membership in the Wind Ensemble is by audition. Qualified students from all majors are encouraged to audition. Symphonic Band: The Symphonic Band is comprised of a diverse population of students, including music and non-music majors. The band performs high quality and entertaining literature, emphasizing musical growth, and comprehensive understanding of musical issues. Auditions are optional. Studio Orchestra is comprised of strings (violin, viola, cello, and string bass) that rehearse together as a string orchestra, and also with the winds and percussion of the Wind Ensemble. Auditions are optional.
P: jr st and audition.
Fall and Spring.

## MUS ENS 461. University Singers. 1 Credit.

An auditioned choral ensemble open to qualified students from all majors. The University Singers perform high quality repertoire drawn from a wide variety of periods and styles. Emphasis is placed on developing good choral tone, strengthening musical skills, and fostering a comprehensive understanding of the literature studied.
P: jr st and audition.
Fall and Spring.

## MUS ENS 462. Concert Choir. 1 Credit.

Concert Choir is the premier choral ensemble of the University. Membership is determined by a rigorous audition with an emphasis on sightreading skills. The repertoire, drawn from a wide variety of periods and styles, is extremely challenging and requires a great deal of individual preparation. P: jr st and audition.
Fall and Spring.

## Music (MUSIC)

## Courses

## MUSIC 103. Music Technology Tools. 1 Credit.

An introduction to music software and technology commonly used by musicians.
P: conc enr Music 151
Fall Only.
MUSIC 115. Ear Training and Sight Singing I. 1 Credit.
Concentrated drill in all aspects of musicianship. Emphasis on sight singing and aural perception in intervals, melodies, chords and rhythms.
Fall Only.
MUSIC 116. Ear Training and Sight Singing II. 1 Credit.
Concentrated drill in all aspects of musicianship. Emphasis on sight singing and aural perception in intervals, melodies, chords and rhythms.
P: MUSIC 115
Spring.
MUSIC 120. Video Game Music. 3 Credits.
This course will equip students to understand the interdisciplinary role, historical progression, musical methodology, technological application, and unique artistry of music in video games. Students will contribute to the class learning environment by researching and presenting a game music composer from an interdisciplinary perspective. Through guided instruction, students will also compose their own basic game music. (No musical background required!)
Spring.

## MUSIC 121. Survey of Western Music. 3 Credits.

The musical styles of several well-known composers as evident in selected compositions; review of a basic repertoire of musical compositions of various forms and styles.
Fall Only.
MUSIC 122. Electronic Music Production. 3 Credits.
This project-based course will teach the basic principles of modern music production using the Ableton Live software platform. Topics covered include audio and MIDI tracking, clip editing, software instruments, effects, synthesis, sampling, and elementary editing and mixing.
Fall and Spring.

MUSIC 123. Introduction to DJ Techniques. 3 Credits.
This course covers the skills needed to start DJ'ing on the Serato software platform, including basic equipment setup and signal flow, using hardware turntable controllers, identifying song attributes such as meter and BPM, counting bars, handling song transitions, scratching, and how to build a DJ set. Fall and Spring.

## MUSIC 151. Music Theory I. 3 Credits.

The materials of which Western music is made are viewed not only in structural terms, but also in psychological, aesthetic and social perspective. Fall Only.

## MUSIC 152. Music Theory II. 3 Credits.

The materials of which Western music is made are viewed not only in structural terms, but also in psychological, aesthetic and social perspective. P: Music 151.
Spring.

## MUSIC 165. Fundamentals of Recording Technology. 1 Credit.

Survey of microphone use, interconnection, stereo microphone techniques, signal flow, gain structure, editing, and other fundamental aspects of classical recording techniques. The course also includes specific orientation for recording procedures and protocols for UWGB music program performances as well as production protocols for Phoenix Studios podcasts.
P: Admission to and declaration of the BA Music/Audio Production emphasis - Students not majoring in BA Music/Audio Production require instructor permission to enroll.
Spring.

## MUSIC 166. Digital Audio Overview. 3 Credits.

This course is a transfer destination course for NWTC 10-206-100 and is a requirement for the BA in Audio Production.
Spring.

## MUSIC 170. Fundamentals of Music. 3 Credits.

This course is designed to acquaint the student with the fundamentals of music through experiences with the keyboard, rhythm instruments, singing, listening, and note reading.
Spring.
MUSIC 198. First Year Seminar. 3 Credits.
First Year Seminar
Reserved for New Incoming Freshman.

## MUSIC 209. Applied Composition. 1 Credit.

An individualized approach to the study of music composition, with an emphasis on small-scale forms and small ensemble works. Course is repeatable for credit; may be taken 4 times for a total of 4 credits.
P: Completion of MUSIC 152 with a grade of B or better, Music Major, and permission of instructor
Fall and Spring.
MUSIC 215. Advanced Sight Singing and Ear Training. 1 Credit.
Concentrated musicianship training with emphasis on chromatic melodies, advanced rhythmic, melodic, and harmonic dictation.
P: Successful completion of MUSIC 116 with a grade of $C$ or better
Fall Only.
MUSIC 220. Introduction to Jazz Theory and Improvisation. 2 Credits.
An introduction to jazz theory and improvisation through lecture and classroom performance on instrument and voice. Emphasis will be placed on scales, modes and harmonic progressions which are common to the jazz repertoire.
P: Music 151 or conc enrl. Rec: ability to read music.
Spring Even.

## MUSIC 224. Popular Music Since 1955. 3 Credits.

Evolution of popular music since 1955 and its relationship to society, especially rock music in the 1960's and early 1970's, the period of greatest stylistic expansion and also the period in which the music was most intimately intertwined with its social milieu.
Fall Only.
MUSIC 242. Jazz and Pop Literature. 2 Credits.
Open to singers or instrumentalists. Students memorize and perform standard pop and jazz literature.
P: Music 151.
Spring Odd.

## MUSIC 253. Music Theory III. 3 Credits.

Study of tonal and structural organization in music: non-chord tones, seventh chords, secondary harmonic relationships, methods of modulation, simple forms, counterpoint, and chromatic tonality.
P: MUSIC 116 and MUSIC 152 with a grade of C or better, and completion of MUS APP 102, MUS APP 106 or MUS APP 128
Fall Only.

MUSIC 254. Music Theory IV. 3 Credits.
Advanced study of chromatic tonality in music: methods of modulation, reductionism, advanced chromatic functions, enharmonicism, and materials of impressionism and 20th century technique.
P: Successful completion of MUSIC 215 and 253. REC: conc enrl MUSIC 354.
Spring.

## MUSIC 265. Audio Engineering I. 3 Credits.

This course is a transfer destination course for NWTC 10-206-102 and is a requirement for the BA in Music, Audio Production emphasis. Fall Only.

## MUSIC 266. Audio Engineering II. 3 Credits.

This course is a transfer destination course for NWTC 10-206-103 and is a requirement for the BA in Music, Audio Production emphasis. Spring.

## MUSIC 272. Women in the Performing Arts. 3 Credits.

This interdisciplinary course examines the contributions of women in the performing arts and looks closely at the factors which constrain and further women's creativity in a variety of performing genres: dance, theater, opera, musical theater, conducting, composition, etc.
Spring Even.
MUSIC 283L. Integrated Materials in Music. 2 Credits.
A study of the basic materials of music theory with an integrated approach to the visual or aural recognition of those materials.
MUSIC 299. 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.
MUSIC 301. Music Technology Systems. 2 Credits.
This course will provide information and experience with the terminology, resources and techniques needed to successfully record, edit, and produce music using a digital audio workstation. In addition, topics such as live sound, analog synthesis, MIDI, and notation software will be explained and used to enhance student-created music.
P: Music 103 and completion or conc enr in Music 152.
Spring Even.
MUSIC 305. Diction for Singers I. 2 Credits.
Introduction to the International Phonetic Alphabet and a specialized approach to diction study for American English and French.
Fall Even.

## MUSIC 306. Diction for Singers II. 2 Credits.

Specialized approach to diction study of Italian and German using the International Phonetic Alphabet.
P: Music 305.
Spring Odd.
MUSIC 311. Jazz Improvisation. 1-2 Credits.
Development of skills in musical improvisation: notation and function of chords, chord symbols, scales and rhythms; selected record listening and playing sessions.
P: MUSIC 253
Fall and Spring.

## MUSIC 319. Choral/Vocal Techniques. 1 Credit.

This course will provide instruction in: 1) a basic method of teaching vocal production at all levels of public school instruction; 2) basic skills in arranging, adapting, and creating scores for small and large choral ensembles; and 3) basic techniques for choosing high quality choral literature from the Renaissance to the present, suitable for performance at all levels of public school instruction. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
P: MUSIC 253 and MUS APP 11; and MUSIC 306 or conc enr
Spring Odd.

## MUSIC 333. Basic Conducting. 2 Credits.

Detailed study of conducting techniques: practical application to choral and instrumental ensembles. P: MUSIC 152 and one of the following; MUS APP 102, MUS APP 104, MUS APP 106 or MUS APP 128
Fall Only.
MUSIC 341. Woodwind Techniques. 2 Credits.
Experience in the performance, pedagogy and critical evaluation of woodwind instruments, including flute, oboe, bassoon, clarinet, and saxophone.
Experience arranging and adapting music for woodwind players in school ensembles.
P: Music 152 or 153 and one of the following; Mus App 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130 or 138.
Fall Even.

MUSIC 342. Brass Techniques. 2 Credits.
Experience in the performance, pedagogy and critical evaluation of brass instruments, including trumpet, French horn, trombone, baritone, and tuba.
Experience arranging and adapting music for brass instruments in student ensembles.
P: Music 152 or 153 and one of the following; Mus App 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130 or 138.
Fall Odd.
MUSIC 343. String Techniques. 2 Credits.
Experience in the performance, pedagogy and critical evaluation of string instruments, including violin, viola, violoncello and string bass. Experience arranging and adapting music for string players inn school ensembles.
P: MUSIC 152 and one of the following; MUS APP 102, MUS APP 106 or MUS APP 128
Spring Odd.

## MUSIC 344. Choral Conducting and Rehearsal Techniques. 3 Credits.

Advanced study of conducting and rehearsal techniques for school vocal ensembles, including principles, techniques and methods of choral tone, diction and score study.
P: Music 333; REC: jr st.
Spring Even.
MUSIC 345. Percussion Techniques. 2 Credits.
Experience in the performance, pedagogy and critical evaluation of percussion instruments, including snare drum, timpani, keyboards, and accessories. Experience arranging for percussionists in school ensembles.
P: Music 152 or 153 and one of the following; Mus App 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130 or 138.
Spring Even.

## MUSIC 348. Instrumental Conducting and Rehearsal Techniques. 3 Credits.

Advanced study of conducting and rehearsing school instrumental ensembles, including score preparation, analysis and musical error detection with specific assignments for marching band and jazz ensemble directing.
P: Music 333; REC: Music 341 or 342 or 343 or 345.
Spring Odd.
MUSIC 353. Music History I. 3 Credits.
Historical examination of Western music from antiquity to the 18 th century.
P: Music 152.
Fall Only.
MUSIC 354. Music History II. 3 Credits.
Historical examination of Western music from 19th century to the present..
P: Music 152 and 353.
Spring.

## MUSIC 362. World Music. 3 Credits.

Survey of tribal, folk and non-western art music with an emphasis on cultural, social, religious, political and economic context.
Spring.

## MUSIC 363. Jazz History. 3 Credits.

Cultural conflict, influence and enrichment that arise when differing traditions of the arts come into contact with Jazz History.
Fall and Spring.
MUSIC 365. Advanced Audio Mixing. 3 Credits.
This course will address intermediate and advanced topics in mixing multitrack audio and digital audio workstation operation, including units in psychoacoustics, effects processing, ear training for audio engineers, and professional audio mixing strategies.
P: declared major in Music-Audio Production emphasis. REC: MUSIC 152, MUSIC 266, MUS APP 128
Fall Only.
MUSIC 366. Advanced Studio Techniques. 3 Credits.
This course addresses advanced techniques for all stages of multitrack commercial audio production, including tracking, mixing, stem production, and mastering.
P: declared major in Music-Audio Production emphasis. REC: MUSIC 152, MUSIC 266, MUS APP 128
Spring.

## MUSIC 371. Piano Pedagogy. 2 Credits.

A practical introduction to private and group piano teaching at the elementary and intermediate level. Students will develop teaching skills through reading, observation, analysis and practical training.
P: Music 253, Mus App 102
Fall and Spring.

## MUSIC 411. Advanced Composition. 1-2 Credits.

An individualized approach to the study of music composition, with an emphasis on large-scale forms and medium to large ensemble works. P: 4 credits of MUSIC 209, completion of MUSIC 254 with a grade of $B$ or better, and completion of or concurrent enrollment in MUSIC 354. Fall and Spring.

## MUSIC 417. Jazz Arranging. 2 Credits.

Provides students with the knowledge necessary to write jazz arrangements for small and large ensembles.
P: Music 253
Fall and Spring.

## MUSIC 423. Seminar in Music Literature. 3 Credits.

Studies in selected areas of music literature for specific media, such as chamber music, opera, music for keyboard, etc., or on works of a single composer.
P: Music 254 and completion of or concurrent enrollment in Music 354.
Spring Even.

## MUSIC 453. Materials and Design. 3 Credits.

Investigation of various compositional techniques and formal processes through score study. Concepts explored through composition exercises and original creative works.
P: Successful completion of MUSIC 254 and completion of or concurrent enrollment in MUSIC 354.
Spring.

## MUSIC 455. Orchestration. 3 Credits.

This course introduces the basic principles of orchestration and arranging for choral, wind, string, and jazz/pop ensembles. Emphasis is upon the development of practical and technical skills, including score and part preparation and idiomatic writing for ensembles of varying levels. Several handson orchestration and arranging projects will promote interactive student learning.
P: MUSIC 103, MUSIC 151, and MUSIC 152
Fall Even.
MUSIC 465. Senior Audio Seminar I. 3 Credits.
This course will address advanced concepts in audio production and engineering, including advanced microphone theory and techniques, surround sound production, structural and physical acoustics, digital audio encoding, and other topics as determined by student needs and interests.
P: MUSIC 365 or MUSIC 366. REC: MUSIC 365 and MUSIC 366
Fall Only.
MUSIC 466. Senior Audio Seminar II. 3 Credits.
This course will further address advanced concepts in audio production and engineering, including advanced microphone theory and techniques, surround sound production, structural and physical acoustics, digital audio encoding, and other topics as determined by student needs and interests.
P: MUSIC 365 or MUSIC 366. REC: MUSIC 365 and MUSIC 366
Spring.
MUSIC 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
MUSIC 480. Capstone Project. 3 Credits.
Students complete a faculty approved project with one or more faculty members, at least one of which is from Music, culminating in a performance, composition, production, research project, community based activity, internship, travel course, or other approved project.
P: Music 354
Fall and Spring.

## MUSIC 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
MUSIC 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## MUSIC 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
MUSIC 499. 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.

## Nursing (NURSING)

## Courses

## NURSING 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary
P: Reserved for New Incoming Freshmen.
NURSING 200. Fundamentals of Healthcare Terminology. 3 Credits.
Healthcare professionals have their own language and terminology. If you are interested in pursuing a career in healthcare, health science, or human service, this course will give you a foundation to communicate with physicians, nurses, and other health professionals. The course will focus on the concept of health, clinical terminology and body systems, medical diagnoses and conditions, and trends in several areas of healthcare. Students will be exposed to healthcare-related information and literature sources.
Fall and Spring.
NURSING 240. Introduction to Professional Nursing Concepts. 2 Credits.
This course introduces students to professional nursing concepts for delivery of person-centered, quality nursing care across health settings. Active learning is emphasized as students learn the nursing process and develop clinical judgment skills. Students are introduced to the role of the nurse as a member of the interprofessional healthcare team.
P: Admission to the Traditional Nursing Major
Spring.

## NURSING 250. Communicating and Managing Healthcare Information. 2 Credits.

This course introduces students to interpersonal communication and use of information technologies in healthcare. These skills and technologies are critical to the development of therapeutic relationships with patients and the interprofessional healthcare team. Legal and ethical issues related to health information technology and health information exchanges will be examined.
P: Admission to the Traditional Nursing Major
Spring.

## NURSING 255. Health Assessment for Nursing Practice. 3 Credits.

This course focuses on the development of interviewing and health history taking skills, as well as, physical examination and psychosocial assessment skills for nursing practice. Students will practice and refine their assessment and psychomotor skills in a laboratory setting. Emphasis on effective communication and documentation skills critical for the provision of safe, effective nursing care are included.
P: Admission to the Traditional Nursing major
Spring.
NURSING 270. Basic \& Intermediate Nursing Skills and Simulation. 2 Credits.
This course introduces students to basic and intermediate nursing skills through demonstration and simulations. Student will learn and demonstrate competence in basic skills to provide high-quality patient-centered care.
P: Admission to the Traditional Nursing Major
Spring.

## NURSING 280. Pathophysiology Concepts for Nursing Practice. 3 Credits.

An introduction to the basic concepts of pathophysiology. Students examine the phenomena that produce alterations in human physiologic function and the resulting human response highlighting their importance to nursing practice.
P: Admission to the Traditional Nursing major
Spring.
NURSING 290. Foundations of Nursing Practice: Practicum/Experiential Learning. 2 Credits.
In this clinical course, students demonstrate developing nursing knowledge and skills in the provision of safe person-centered, evidence-based care. Students will develop confidence with the application of skills and clinical judgment in a variety of settings.
P: Admission to the Traditional Nursing Major
Spring.

## NURSING 300. Pharmacology for Nursing Practice. 3 Credits.

An introduction to the basic concepts of pharmacology. Students will focus on the principles of pharmacology and administration, mechanisms of drug actions, contraindications, adverse and toxic effects, and lifespan considerations.
P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 255, NURSING 270, NURSING 280, NURSING 290
Fall Only.
NURSING 305. Healthy Aging and Chronic Care Management. 3 Credits.
This course introduces students to nursing concepts for delivery of evidence-based nursing care of the older adult population. Nursing interventions designed to assist persons with chronic conditions to prevent or reduce common risk factors that contribute to decline in physical and mental function, impair quality of life, and contribute to excess disability are addressed. Students will identify population-focused opportunities to promote wellness for older adults, caregivers/families, and communities.
P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 255, NURSING 270, NURSING 280, NURSING 290
Fall Only.

## NURSING 320. Health \& Illness Concepts I. 3 Credits.

This course focuses on health and illness concepts emphasizing delivery of evidence-based, person-centered nursing care across the health/illness continuum. Students apply the nursing process to plan care for individuals across care settings. Exemplars illustrate common health processes and/or alterations of homeostasis and protection, elimination, urinary, and regulatory systems.
P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 255, NURSING 270, NURSING 280, NURSING 290 Fall Only.

## NURSING 331. Health \& Illness Concepts I: Advanced Nursing Skills/Simulation. 1 Credit.

This course introduces students to advanced nursing skills through demonstration and simulations. Evidence-based clinical reasoning is applied in the simulated setting. Students will demonstrate evolving nursing knowledge and competence in advanced skills to provide safe, high-quality patientcentered care.
P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 255, NURSING 270, NURSING 280, NURSING 290
Fall Only.

## NURSING 332. Health \& Illness Concepts I: Practicum. 2 Credits.

In this clinical course, students demonstrate evolving nursing knowledge and skills in the provision of safe person-centered, evidence-based care. Students will apply the nursing process while demonstrating application of nursing concepts, skills and clinical judgment in a variety of settings. P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 255, NURSING 270, NURSING 280, NURSING 290 Fall Only.

## NURSING 340. Quality Improvement. 2 Credits.

Students are introduced to quality improvement as a foundation for quality care and safety. Data to monitor the processes and outcomes of care are discussed. Methods to design and test changes to continuously improve the quality and safety of healthcare systems are explored.
P: Admission to the Traditional Nursing Major OR Community Health Education major; PSYCH 205 or equivalent introductory statistics course Fall Only.

## NURSING 350. Professional Development I: Nursing Theory, Image and Ethics. 3 Credits.

This course examines the history of the nursing profession and nursing theories that contribute to the evolution of nursing's role as a member of the interprofessional healthcare team. The principles that form the cornerstone of biomedical ethical decision making will be applied to the care of persons in diverse settings. Team building and group process skills are further examined.
Spring.

## NURSING 360. Health \& Illness Concepts II. 3 Credits.

This course focuses on health and illness concepts emphasizing delivery of evidence-based, person-centered nursing care across the health/illness continuum. Students apply the nursing process to plan care for individuals across care settings. Exemplars illustrate common health processes and/or alterations of Oxygenation (Ventilation, Transport, Perfusion) and Movement and Coordination (Neurological system).
P: Admission to the Traditional Nursing Major; NURSING 300, NURSING 305, NURSING 320, NURSING 331, NURSING 332, NURSING 340 Spring.

## NURSING 370. Evidence-Based Practice: Translating Research to Practice. 2 Credits.

This course will expose students to research methods and designs and evidence-based practice concepts. Students will learn to critically appraise qualitative and quantitative research methods/designs and nursing literature to inform safe, quality, patient-centered care.
P: Admission to the Traditional Nursing Major; NURSING 300, NURSING 305, NURSING 320, NURSING 331, NURSING 332, NURSING 340; PSYCH 205 or equivalent introductory statistics course
Spring.

## NURSING 380. Alterations in Health \& IIIness II: Practicum/Simulation. 2 Credits.

In this clinical course, students will demonstrate advanced nursing knowledge and skills in the provision of safe person-centered, evidence-based care. Students will apply the nursing process while demonstrating confidence with the application of skills and clinical judgment in a variety of settings.
P: Admission to the Traditional Nursing Major; NURSING 300, NURSING 305, NURSING 320, NURSING 331, NURSING 332, NURSING 340
Spring.

## NURSING 390. Leadership for Sustainable Healthcare: Health Disparities, Health Equity, \& the Nursing Profession. 3 Credits.

This course will explore issues of health equity and health disparities from several perspectives. Health disparities are one way we can measure our progress toward achieving health equity. Health equity can be defined as a focus on ensuring opportunities for everyone to attain their highest level of health. Students will examine the role that systems (i.e., health, education, public health, civil, etc.) play in contributing to and addressing these disparities. The Social Determinants of Health (e.g., socioeconomic status, race/ethnicity, gender, education, geography) will provide a framework on which to explore these vulnerabilities.
P: Admission to the Traditional Nursing Major; NURSING 240, NURSING 250, NURSING 280, NURSING 290 Spring.

## NURSING 400. Nursing Care of the Childbearing Family. 3 Credits.

This course prepares students to provide nursing care for the childbearing family. Students will recognize the needs of the childbearing family and demonstrate understanding of the nurse's role in providing efficient and cost-effective care. Additional topics include effective communication skills, basic bio/psycho/social/spiritual assessment of the childbearing family, pharmacology and commonly administered medications, principles of comfort and safety, resources and services, and the roles of healthcare team members as they relate to the childbearing family.
P: Admission to the Traditional Nursing Major; NURSING 360, NURSING 370, NURSING 380
Fall Only.

## NURSING 407. Foundations of Professional Nursing Practice. 3 Credits.

Philosophical perspectices, theories, and standards are applied to the practice of professional nursing. Factors influencing nursing/health care delivery are analyzed. Professional communication skills are enhanced.
P: Nursing Major and RN License
Fall and Spring.

## NURSING 410. Behavioral Health Care Management. 3 Credits.

Apply theories and implement evidence-based care for clients with psychiatric/mental health issues, including psychosocial concepts; cultural, ethical, and legal influences; and wellness of individuals and family groups. Development of professional role in psychiatric/mental health nursing.
P: Admission to the Traditional Nursing Major; NURSING 360, NURSING 370, NURSING 380
Fall Only.

## NURSING 420. Nursing with Diverse Populations Practicum. 2 Credits.

This clinical course complements the theory, models, and concepts learned in Nursing Care of the Childbearing Family (400) and Behavioral Health Nursing (410). Students will demonstrate advanced nursing knowledge and skills in the provision of safe person-centered, evidence-based care for individuals and families across the lifespan. Students will apply the nursing process while demonstrating confidence with the application of skills and clinical judgment in a variety of settings while working as a member of a multidisciplinary team.
P: Admission to the Traditional Nursing Major; NURSING 360, NURSING 370, NURSING 380
Fall Only.

## NURSING 430. Population/Community Health Nursing Theory. 3 Credits.

This course introduces students to nursing concepts for delivery of evidence-based nursing care of individuals, families, populations, and communities to facilitate optimal health outcomes. Nursing interventions are designed at the individual, community, and system levels to prevent or reduce common risk factors.
P: Admission to the Traditional Nursing Major; NURSING 360, NURSING 370, NURSING 380
Fall Only.

## NURSING 440. Population/Community Health Nursing Practicum. 1 Credit.

This clinical course complements the theory, models, and concepts learned in Community Health Nursing 430. The focus is on disease prevention and health promotion for individuals, families, and communities applying primary, secondary, and tertiary levels of prevention. Students are exposed to the population-based public health nursing interventions and to the nursing process as it relates to the practice of community health nursing, while working within a multidisciplinary team.
P: Admission to the Traditional Nursing Major; NURSING 360, NURSING 370, NURSING 380
Fall Only.

## NURSING 441. Chronic Care Management. 3 Credits.

Exploration of interaction of biological, psychological, social, and environmental factors important to understanding management of chronic conditions at the individual, family, community, and societal levels.
$P$ : Nursing major and RN license
Fall and Spring.

## NURSING 446. Research and Evidence-Based Practice. 3 Credits.

This course introduces the importance of research to improve clinical practice, strategies to evaluate the quality of research and evidence, and increase integration of research into practice.
P: Nursing Major and RN license; MATH 260, PSYCH 205 or BUS ADM 220 or conc enrl.
Fall and Spring.

## NURSING 447. Leadership and Management. 3 Credits.

Examines nursing leadership and management using relevant theories and concepts. Analyze decision making in relation to delegation, supervision, and group process.
P: Nursing Major and RN License
Fall and Spring.

## NURSING 450. Health \& IIIness Concepts III: Complex Care. 3 Credits.

This course focuses on the care of patients experiencing complex, high acuity health conditions. Students synthesize previously acquired knowledge gained in the Health \& IIIness I and II courses as they examine high acuity patient to plan and provide care. Exemplars illustrating high acuity conditions in all body systems will be applied.
P: Admission to the Traditional Nursing Major; NURSING 400, NURSING 410, NURSING 420, NURSING 430, NURSING 440 Spring.

## NURSING 453. Information Management and Healthcare Technology. 3 Credits.

Utilize computer and information/decision science to support quality and safety in health care. Explore informatics issues and examine nursing's role in healthcare technology. Opportunities to use and master various healthcare technologies and healthcare data will be given.
$P$ : Nursing major and RN license
Fall and Spring.

## NURSING 454. Community Health Nursing. 3 Credits.

This course provides an overview of community nursing theory, roles, tools and skills needed to promote the health of individuals, families, and populations in communities.
P: Nursing Major and RN License
Fall and Spring.

## NURSING 455. Community Health Nursing Practicum. 3 Credits.

Community Health Nursing Practicum complements the theory, models, and concepts learned in Community Health Nursing. It is a practice component that brings community health nursing into reality. The focus is on disease prevention and health promotion for individuals, families, aggregates, and communities.
P: Major in Nursing: Nursing 454 or concurrent enrollment
Fall and Spring.
NURSING 461. Care Transitions Practicum Immersion. 4 Credits.
This course is a clinical immersion experience designed to provide comprehensive learning opportunities that promote integration of baccalaureate learning outcomes to prepare the graduate for professional nursing practice. Students will demonstrate advanced nursing knowledge and skills under the direction of a nurse mentor in the provision of safe person-centered, evidence-based care. Students will apply concepts, knowledge, and skills necessary to bridge the gap between education and practice. The attributes of immersion education include demonstrating increasing levels of competency and independence, learner accountability, and self-assessment.
P: Admission to the Traditional Nursing Major; NURSING 400, NURSING 410, NURSING 420, NURSING 430, NURSING 440 Spring.

## NURSING 470. Professional Development: Navigating the Nursing Profession. 2 Credits.

This course examines the focuses on professional role socialization and integrates the Nurse of the Future Competency Model. Students will build their skills in resume writing, job interviewing, and career development. Faculty will assist students to develop individualized NCLEX-RN preparation strategies based on a review of the HESI Comprehensive Predictor Examination.
P: Admission to the Traditional Nursing Major; NURSING 400, NURSING 410, NURSING 420, NURSING 430, NURSING 440
Spring.

## NURSING 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs. P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## NURSING 480. Leadership: Nursing in an Evolving Healthcare System. 3 Credits.

This course introduces students to leadership skills for safe effective practice as a new graduate nurse; issues affecting nursing practice; leadership attributes, e.g., creating effective teams, confident interaction with others, resolving conflict, managing resources, leadership for assuring patient safety and quality care.
P: Admission to the Traditional Nursing Major; NURSING 400, NURSING 410, NURSING 420, NURSING 430, NURSING 440 Spring.

## NURSING 490. Synthesis for Nursing Practice. 3 Credits.

Course focus is synthesis of professional nursing roles introduced in previous courses. In addition, nursing theories are analyzed in light of their value to practice. Nursing's societal involvement is emphasized.
P: Major in Nursing; Nursing 407, 441, 446, 447, 453, 454, 455, and 492 or conc enrl.
Fall and Spring.

## NURSING 492. Special Topics in Nursing. 3 Credits.

Course topics vary. Typical topics include Nursing Care of Older Adults, Pharmacology, Pathophysiology, Women's Health Care, Informatics, School Health.
P: major in Nursing.
NURSING 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## NURSING 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## NURSING 499. 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.

## Nutritional Sciences (NUT SCI)

## Courses

## NUT SCI 32TUL. UPPER LVL TRNSFR SUSP HUM ETP. 1 Credit.

## NUT SCI 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## NUT SCI 201. Survey of Nutrition Related Professions. 1 Credit.

An overview of the educational, credentialing and practice opportunities for dietetic and related professions. Explore career options for graduates, examine current trends that impact on future jobs, conduct a self-assessment and develop personal career goals.
Fall and Spring.
NUT SCI 202. Ethnic Influences on Nutrition. 3 Credits.
This course examines the ways in which ethnicity influences food habits and can affect nutrition and health status.
Fall and Spring.

## NUT SCI 208. Art and Science of Healthy Food Preparation. 3 Credits.

Students will learn principles, practices and techniques of healthy food preparation. Emphasis will be on learning to combine textures, spices, and ingredients to optimize flavor, aesthetic appeal, and nutritional value of prepared foods. Additionally, students will learn to prepare foods appropriate to health maintenance and disease prevention. The course, taught in the food lab, will incorporate both lecture and hands-on (lab) components.
Fall Only.

## NUT SCI 212. Science of Food Preparation. 4 Credits.

Studies the chemical, physical and microbiological characteristics of food and the manipulation of these factors to meet quality standards. Laboratory activities demonstrate principles of food science as applied to food preparation, sanitation and safety.
P: Chem 108 with at least a C grade or Chem 211 with at least a C grade.
Fall Only.
NUT SCI 242. Food and Nutritional Health. 3 Credits.
Food and Nutritional Health emphasizes and evaluates the practical personal application of nutritional concepts in promoting a healthy diet and lifestyle. Fall and Spring.
NUT SCI 250. World Food and Population Issues. 3 Credits.
World hunger and population growth as interrelated problems. Dimensions of the world food situation and its implications; scope, complex causes and effects of malnutrition; general strategies and obstacles to the solution of world food and population problems.
Fall and Spring.

## NUT SCI 270. Sport and Performance Nutrition. 3 Credits.

Nutrition is essential to sustain and enhance fitness, performance, and health. This course will analyze nutritional and metabolic factors that optimize peak performance. Scientific methods will be put into practice to develop individualized plans to manage nutrition needs. Nutrition periodization practices will be explored in relation to exercise, sport, and human performance to promote energy, recovery, and health.
Fall Only.

## NUT SCI 299. 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.

NUT SCI 300. Human Nutrition. 3 Credits.
Examines the physiologic and metabolic roles of nutrients and their food sources. Analysis of the nutrient content of diets and requirements for maintenance of health and prevention of chronic diseases.
P: Biology 201/202 with at least a C grade; and Chem 108 with at least a C grade or Chem 212 with at least a C grade.
Fall and Spring.

## NUT SCI 312. Quantity Food Production and Service. 4 Credits.

Principles of quantity food preparation, service, and budgeting in food service systems. Projects and laboratories afford pertinent practical experiences. P: Nut Sci 212 with at least a C grade.
Spring.

## NUT SCI 327. Nutritional Biochemistry. 4 Credits.

A lecture/laboratory course of applied organic chemistry and biochemistry with an emphasis on human nutrition and disease. Examines structure/ function relationships and reactions of molecules, metabolic regulation and the roles of nutrients in normal and abnormal metabolism.
P: Biology 201/202 with at least a C grade; and both Chem 300 and 301 with at least a C grade or both Chem 303 and 305 with at least a C grade.
Fall Only.

## NUT SCI 350. Life Cycle Nutrition. 3 Credits.

Covers nutrient needs and physiologic changes relevant to stages of the life cycle. Also examines psychosocial and environmental conditions that impact on nutrition status in each stage.
P: Nut Sci 300 with at least a C grade.
Spring.

## NUT SCI 402. Management in Dietetic Practice. 3 Credits.

Examines management roles and functions in dietetic practice with an emphasis on a system's approach to management. Focuses on leadership skills and tools needed for operational change and quality improvement.
P: Nut Sci 312 or conc enroll.
Spring.

## NUT SCI 421. Community and Public Health Nutrition. 3 Credits.

Application and integration of the principles of nutrition concepts and their delivery in the context of social, economic, and cultural environments in various scales of community settings. At the graduate level, emphasis will be placed on agency needs assessment, management and coordination of public health or nutrition programming, and project outcome assessment. At the undergraduate level, a major focus will be on the development and implementation of a nutrition intervention program for a selected target group with measurable goals and objectives.
P: Junior standing, Declared major in Human Biology with a Nutritional Science emphasis or an Applied Public Health emphasis, and NUT SCI 300 with at least a C grade; Concurrent enrollment in Nut Sci 423
Fall Only.

## NUT SCI 423. Community and Public Health Nutrition - Lab. 1 Credit.

Application and integration of the principles of nutrition concepts and their delivery in the context of social, economic, and cultural environments in various scales of community settings. At the undergraduate level, a major focus will be on the development and implementation of a nutrition intervention program for a selected target group with measurable goals and objectives. In the lab component of this course, students will engage in hands-on experiences that serve as a bridge between theoretical knowledge and practical application, fostering the development of essential professional competencies for effective nutrition program management.
P: Junior standing, Declared major in Human Biology with a Nutritional Science emphasis or an Applied Public Health emphasis, and NUT SCI 300 with at least a C grade, concurrent enrollment required in Nut Sci 421
Fall Only.
NUT SCI 427. Nutrigenomics and Advanced Nutrient Metabolism. 3 Credits.
This course examines several biochemical pathways associated with diet and lifestyle related diseases, with emphasis on the role of nutrition in modulating these pathways and disease risk. Nutrigenomics, oxidation/antioxidants, eicosanoid and inflammation mechanisms, and diet and cancer are covered.
P: NUT SCI 300 with at least a C grade; REC: NUT SCI 327.
Spring.

NUT SCI 470. Advanced Nutrition for Sport and Fitness. 3 Credits.
This course will address the role of nutrition in enhancing exercise performance. Topics include the principles of energy metabolism during aerobic and anaerobic exercise; biochemical roles of macronutrients, vitamins, and minerals; endocrine and immunological alterations with exercise and diet; fluid balance; sports supplements; and planning diets for athletes.
P: NUT SCI 300 with a grade of C or better; and HUM BIOL 240/241 with a grade of $C$ or better, or HUM BIOL 221/222 with a grade of $C$ or better. Spring.

## NUT SCI 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
NUT SCI 485. Medical Nutrition Therapy I: An Integrative and Functional Approach. 3 Credits.
Theory, principles and application of communication and counseling as applied to behavior changes; application of nutrition assessment and the nutrition care plan process. Health care systems, managed care, and reimbursement.
P: PSYCH 102 or PSYCH 203 with at least a C grade; and NUT SCI 300 with at least a C grade
Fall Only.
NUT SCI 486. Medical Nutrition Therapy II: An Integrative and Functional Approach. 3 Credits.
Principles and applications of nutrition therapy in the prevention and treatment of common and complex diseases.
P: NUT SCI 485 with a least a C grade
Spring.

## NUT SCI 487. Nutritional Science Seminar. 1 Credit.

Exploration of the role of the nutrition professional in food and nutrition-related public policy; application of the code of ethics for the dietetics profession. P: Senior status and enrollment in Nut Sci/Dietetics emphasis
Fall Only.

## NUT SCI 488. Medical Nutrition Therapy II: An Integrative and Functional Approach - Discussion. 1 Credit.

Practicum learning opportunities to apply counseling and assessment skills in integrative medical nutrition therapy.
P: NUT SCI 485 with a least a C grade; concurrent enrollment in NUT SCI 486.
Spring.

## NUT SCI 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## NUT SCI 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
P: Chem 207 and approval by faculty mentor.
NUT SCI 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## NUT SCI 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or = 2.50; or jr or sr st with cum gpa >or $=2.00$.
Fall and Spring.

## NUT SCI 499. 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.

## Organizational Leadership (ORG LEAD)

## Courses

ORG LEAD 101. Leadership for Home and Community-Based Care. 1 Credit.
This course is designed to provide a basic introduction to leadership by focusing on what it means to be a good leader.
Fall Only.
ORG LEAD 198. Introduction to Leadership. 3 Credits.
This course is designed to guide learners in exploring their perceptions of leadership, reflecting on their beliefs about leadership, applying the basics of effective written communication, articulating the value of critical, creative, and interdisciplinary thinking, and demonstrating skill in interdisciplinary problem solving.

## ORG LEAD 301. Rising Leadership. 3 Credits.

This course is designed to help learners recognize, assess, and address policies, procedures, and practices related to gender in the workplace, and to guide leaders, and aspiring leaders, in creating organizations in which all employees are encouraged to reach their full potential.

## ORG LEAD 302. Gender \& Equity in Organizational Leadership. 3 Credits.

This course prepares students to think critically about the ways gender and leadership intertwine in organizations in the form of systems of power, privilege, and oppression. Through exploration of important questions and relevant issues of gender and equity, this course prepares the student to develop an understanding of potential gender barriers in organizations while gaining critical self-awareness around one's own identity and leadership practices. Students will assess the role of effective leadership styles that promote inclusivity in organizations.
Fall Only.

## ORG LEAD 346. Organizational Research and Statistics. 3 Credits.

The focus of this course is on workplace research. Students will learn to identify problems and questions in need of solutions, to collect data that may be relevant to the solution, to use the tools of statistics to analyze and interpret data and to draw conclusions warranted by data analysis.
ORG LEAD 347. Budgeting and Financial Management. 3 Credits.
This course will examine and address the intersection of budgeting and financial management across all three organizational sectors - public, private, and nonprofit, highlighting similarities and differences. It will delve into techniques, strategies, theories, and applications of budgeting and financial management, with an emphasis on real-world applications in organizations of all sizes and types.

ORG LEAD 348. Organizational Behavior Across Sectors. 3 Credits.
The course is designed to develop student's skills in managing individuals and groups in business, government, and nonprofit settings. It focuses on the knowledge, self-awareness, and skills appropriate for leaders in organizations such as communication, collective decision-making, conflict negotiation and resolution, motivation, and politics through the lens of the individual.
Fall and Spring.
ORG LEAD 400. Organizational Leadership Capstone. 3 Credits.
This capstone course helps students synthesize learning in their major, their area(s) of emphasis and/or minor(s), and their general education courses, and provides a platform for discussion and reflection on the meaning and practice of leadership and engaged citizenship.
P: ORG LEAD major and senior status.
ORG LEAD 420. Mindful Leadership. 3 Credits.
In this course, students will explore what it means to be a mindful leader and how leaders are most effective when they are fully aware of their thoughts and actions, and their impact on people and organizations.
Fall and Spring.
ORG LEAD 478. Honors in the Major. 3 Credits.
An individual contract is developed in consultation with a faculty member who is proficient in the subject matter of the topic with the approval of the Chair/Coordinator of the Organizational Leadership program.

ORG LEAD 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
ORG LEAD 497. Internship. 1-6 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Must obtain the approval of the Organizational Leadership program chair/coordinator or department chairperson. Course is repeatable for credit; may be taken 3 times or for a total of 6 credits.

ORG LEAD 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.

## Philosophy (PHILOS)

## Courses

PHILOS 101. Introduction to Philosophy. 3 Credits.
This course will acquaint you with some of the more interesting topics and methodologies in Philosophy. Our principal focus is to learn to identify and evaluate philosophical arguments, which we will do by considering topics that circle our endeavor to grasp and understand ultimate reality. Here are some of the questions we will ask: Does the mind exist apart from the body? Do we have free Will? Is life inherently meaningful? Is moral value something that humans alone possess, or is it present in the world around us? Is there such a thing as a 'good' human life?
Fall and Spring.

## PHILOS 102. Contemporary Ethical Issues. 3 Credits.

Ethics is one branch of philosophy, and philosophy is an attempt to understand the most basic concepts and theories that people use to understand the nature of the world, human beings, and human beings' place in the world. The main concerns of ethics are the nature of good and evil and the basis of right and wrong conduct. It is easy to form a quick belief about what a good life is, or about whether abortion is right or wrong, whether capital punishment is justified, and so on. Someone may even have some reasons for his/her beliefs on such issues. But in ethics that is not enough. Ethics asks whether the reasons are really good ones, ones that truly justify the belief in question, ones that can truly withstand an objective critical examination, ones that truly fit in well with a solid system of ethical beliefs. This course deals with some of the most important questions of ethics, and tries to answer them on the basis of the highest standards of reasoning. We will first examine a number of different ethical theories. After we have studied ethical theories, we will go on to consider particular ethical issues. These issues will also be critically and systematically examined. Such issues may include abortion, genetic engineering, euthanasia, the death penalty, freedom of speech, war and terrorism, and animal rights.

PHILOS 103. Logic and Reasoning. 3 Credits.
This course introduces the students to the basic concepts and skills of logical reasoning which is central to critical thinking. With the objective of constructing good arguments for successful persuasion and defending ourselves against the illogical and fallacious appeals that bombard us daily, this course examines formal and informal fallacies, rules of syllogisms, and propositional logic and applies these logical tools to samples of real-life situations.
Fall and Spring.

## PHILOS 105. Is Morality for Sale?. 3 Credits.

This course hopes to introduce us to the study of morality and moral practice by first asking whether we ought to behave morally and, if so, what, exactly, it might mean to think and act in a moral way. The course will explore several challenges to morality--such as relativism, evolution, and the possibility that God does not exist. We will also examine the moral implications of birth, death, and pleasure, as well as how freedom, equality, and loyalty enter into our moral lives. We will conclude by considering a host of ways in which moral values are or ought (not) to be for sale.
Fall and Spring.
PHILOS 107. Philosophy of Love, Sex, and Friendship. 3 Credits.
A philosophical examination of personal relationships and interactions such as family, friendship, sex, and romance, with an eye toward their relevance to the individual life and the pursuit of happiness, as well as society as a whole and the manner in which it is and ought to be structured around such relationships.
Fall Only.

## PHILOS 198. First Year Seminar. 3 Credits.

First Year Seminar
Reserved for New Incoming Freshman
Fall Only.
PHILOS 208. Biomedical Ethics. 3 Credits.
This course is an introduction to biomedical ethics. The first part of the course provides an introduction to basic ethical theory, which is intended to serve as a background aid for thinking through the particular issues discussed in the remainder of the course. Specific topics to be discussed in the second part of the course include confidentiality and truth-telling in the doctor/patient relationship, medical experimentation and informed consent, abortion, treatment decisions for seriously ill infants, physician assisted suicide, and health care reform.
Spring.

## PHILOS 212. Philosophy, Religion, and Science. 3 Credits.

This course considers the relationship between science and religious beliefs, explores the value of knowledge, and asks if science needs a moral vision. After considering these theoretical questions, it then examines issues like religion and evolution, religion and natural laws, the mind-body relationship, genetic engineering, human experimentation, cloning, and euthanasia. Students will read texts from thinkers like Francis Bacon, Charles Darwin, Stephen Jay Gould, Richard Dawkins and John Paul II.
Spring Even.

## PHILOS 213. Ancient Philosophy. 3 Credits.

The primary objective of this course is to introduce the student to the writings and arguments of the major ancient Greek philosophers. Accordingly, the course is both philosophical and historical. It is philosophical in the sense that we will try to understand the major components of the philosophical theories of the most influential thinkers of ancient Greece as well as examine the reasoning through which they arrived at these theories. It is historical in the sense that we will look at the development and growth of philosophical thought in ancient Greece and, as much as possible, situate these thinkers in their historical context. The course will cover five historical figures or groups of figures in ancient Greek philosophy: 1) Pre -Socratic Philosophers, 2) Socrates, 3) Plato, 4) Aristotle, and 5) Hellenistic Philosophers.
Fall Only.
PHILOS 214. Early Modern Philosophy. 3 Credits.
This course explores the philosophical ideas that served as the catalyst for the radical and moderate enlightenment, spanning roughly from the early 17th century to mid-18th century. Topics discussed include the nature of human identity, the physical and mental world, God, causation, free will, knowledge, and skepticism. We will read selections from Rene Descartes, Nicolas Malebranche, Benedict Spinoza, Gottfried Leibniz, John Locke, George Berkeley, and David Hume. This course will emphasize the critical reading, thinking, and writing skills indicative of the Philosophy discipline. P: none; REC: Philos 101..
Spring.

## PHILOS 216. Introduction to Asian Philosophy. 3 Credits.

The objectives of this course are (1) to help the students to acquire a basic knowledge of the metaphysics, ethics, and natural philosophy of three major Asian philosophies: Buddhism, Confucianism, and Daoism, (2) to enable the student to acquire a deeper understanding of the living values and ways of life characteristic of a major portion of the world's non-Western population, and (3) to aid students in the development of critical thinking and writing skills. Students will gain proficiency in (a) reading philosophical texts closely, (b) critically analyzing arguments, and (c) formulating their own opinions both verbally and in writing. This course is divided into three parts. The first part is on Buddhism, the second part on Confucianism, and the third part on Daoism.
Spring.

## PHILOS 217. Introduction to the Philosophy of Religion. 3 Credits.

This course introduces students to the exciting field of the Philosophy of Religion. After exploring basic questions in metaphysics and epistemology, the course will consider topics like God's existence and attributes, problems of evil, religious experience, love, miracles, hell, purgatory, heaven and contemporary atheism. Students will understand controversies about these topics and will be encouraged to develop their own ideas about them. Fall Only.

## PHILOS 220. Environmental Ethics. 3 Credits.

This course aims to raise our awareness of deep philosophical questions about the nature and location of value and how this may alter our understanding of our ethical relation to the environment. You should expect to become more confident in your ability to identify, articulate, and defend your own opinions on ethical issues and to sharpen your critical thinking skills in the process. Topics discussed include whether human interests are ethically dominant, what defines the outer boundary of the ethical sphere, how to best decide between competing ethical interests, whether pragmatism is a value, and how technology informs the discussion.
Fall Only.

## PHILOS 227. Business Ethics. 3 Credits.

This course (1) explores basic ethical theories, and (2) examines them as a foundation for determining the rightness or wrongness of various decisions and practices in business. We will focus on specific cases and examples. The fact that there is no one universal set of behaviors considered ethical and no one set of guidelines considered correct poses unique challenges to determining the ethics of business decisions and conduct. But the business world is continually confronted with ethical challenges, situations in which the values and ethics of individuals may conflict with those of the teams or organizations they work for. This course probes ethical topics and issues which people in business face in their workplaces. Among the topics covered are corporate responsibility, and conflicts of interest between public interest and the interests of business, the rights of employees, the ethics of advertising, and the morality of information disclosure.
Fall and Spring.

## PHILOS 299. 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.

## PHILOS 301. Ethical Theory. 3 Credits.

This course aims at acquainting students with a number of major ethical theories in the Western philosophical tradition. Students will read classical and contemporary writings on a number of major ethical topics such as pleasure, egoism, relativism, happiness, moral responsibility, utilitarianism, deontological ethics, and virtue ethics. In addition to the reading, students will focus on reconstructing and critically reflecting the arguments on the issues on these topics in class discussions and writings.
$P$ : none; REC: jr st and one philos cse.
Spring Even.
PHILOS 308. Philosophy and the Sciences. 3 Credits.
Science is often thought to be the ultimate form of objectivity and rational inquiry. But what is 'science'? Is there one scientific method? What reasons do we have to regard it as more truth-conducive than other routes to knowledge? Is there such a thing as a truly unbiased experiment? Do we mean to say that our scientific theories are true? What kind of justification would be required for such claims? And what about the many strange entities of science? Do electrons exist, or are they just useful fictions to fill holes in scientific theories? Are laws of nature real entities?
P: none; REC: Philos 214.
Fall Even.
PHILOS 309. Religion and Medieval Philosophy. 3 Credits.
This course examines main themes in medieval philosophy. After examining the relationship between faith and reason, students will explore the nature of the soul, knowledge, the afterlife, God's existence, the ontology of universals and other important philosophical topics. Readings will include selections from the work of Christian, Islamic and Jewish thinkers like Anselm, Thomas Aquinas, Bonaventure, Duns Scotus, William of Ockham, Maimonides, Averroes and Avicenna.
P: none; REC: Philos 213 and 214.
Spring Odd.

## PHILOS 323. Modern Philosophy. 3 Credits.

Course topics vary. In one iteration, this course will work its way through seminal thinkers in nineteenth century philosophy including (though not limited to) Hegel, Marx and Nietzsche. Our aim will be to both connect these thinkers to earlier ideas and trends in Philosophy and to see how they extend such ideas in radically different ways. In another iteration, this course will delve into a somewhat later historical movement in Philosophy - the existentialists. We will begin with the early influence of Russian authors before moving through later thinkers such as Heidegger, Camus and Sartre. The course will include literary and philosophical readings. Course is repeatable for credit if topics differ; may be taken 2 times for a total of 6 credits.
P: none; REC: Philos 213 and 214.
Fall Odd.

## PHILOS 324. Contemporary Philosophy. 3 Credits.

Course topics vary, but may include Philosophy of Mind and/or Emotion, Experimental Philosophy, Phenomenology, Contemporary French Philosophy or other recent movements afoot in Europe and America, representing both Analytic and Continental traditions in Philosophy. Course is repeatable if topics differ; may be taken 2 times for a total of 6 credits.
P: PHILOS 214
Spring Odd.

## PHILOS 326. Philosophy, Politics and Law. 3 Credits.

The primary objective of this course is to acquaint students with the fundamental concepts, issues, theories, and arguments of political and legal philosophy. Students will read selections from classical and contemporary philosophers on fundamental political and legal issues. We will consider such controversial topics as surrogate motherhood, disability, affirmative action, and same-sex marriage. The emphasis throughout will be on the understanding and critically evaluating the argumentation of the philosophers we will studying. Students will be required to formulate their own arguments on important issues, but their argumentation must be informed with the political and legal theories found in the text.

## $P$ : none

Fall Even.

## PHILOS 351. Happiness and the Good Life. 3 Credits.

This course examines the concept of a happy life through a study of the Asian philosophies of Buddhism, Confucianism, Daoism. We will be reading primary texts and secondary philosophical texts, and we will watch and examine influential movies and videos on the topic.
P: None REC: Philos 102.
PHILOS 401. Plato and Aristotle. 3 Credits.
This course is critical investigation of the first two comprehensive, philosophical systems of Western civilization. Plato and Aristotle each proposed and argued for a full metaphysics, epistemology, ethics, political philosophy, and philosophy of art. In this course students will be engaged in an in-depth study of their major works.
REC: Philos 213
Fall Odd.

## PHILOS 403. Topics in Philosophy. 3 Credits.

Course topics vary. This will be an in-depth study of a current topic or a figure in philosophy and/or an area of research for one of our faculty members. The aim will be to include students in live and contemporary philosophical literature and debates. Course is repeatable for credit if topics differ; may be taken 5 times for a total of 15 credits.
P : upper level cse in Philos.
Fall Even.

## PHILOS 420. Metaphysics. 3 Credits.

Metaphysics is the study of Being and the various forms it takes in this world and possibly beyond. It comprises some of the oldest and most difficult questions in Philosophy. In this class we will investigate some of its major historical and contemporary topics, which may include the status of Platonic Forms, the reality and identity of ordinary particulars, what kind of thing causality is, what makes states of affairs possible or necessary, what are space and time, and whether any progress can be made in such endeavors (the question of anti-realism). In a special iteration of this course we look specifically and in great depth at the question of Free Will. We rely entirely on primary-source readings to explore the challenge of free will, the plausibility of compatibilsim, and tenability of hard determinism. Along the way, we will discuss how the free will debate informs our thinking about God's foreknowledge, criminal punishment, love and friendship, possible worlds, and even time-travel. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Philos 213 or Philos 214 REC: Philos 309 or Philos 324
Spring Even.

## PHILOS 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
PHILOS 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## PHILOS 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## PHILOS 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
PHILOS 499. 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.

## Physical Education (PHY ED)

## Courses

## PHY ED 101. Swimming I. 1 Credit.

Fundamental swimming, basic water survival skills, and safety for students with minimum to no swimming ability.
Spring.

## PHY ED 117. Cardiopulmonary Resuscitation. 1 Credit.

Causes and effects of respiratory, cardiac and circulatory insufficiency and arrests are explored as well as appropriate emergency care responses. Students develop resuscitation skills on adult, child and infant mannequins. American Red Cross or American Heart Association certification available. Fall Only.

## PHY ED 118. Relaxation Thru Yoga. 1 Credit.

This course is designed to allow students to participate in yoga. Various yoga routines are developed to emphasize strength, flexibility, balance, coordination, and relaxation.
Spring.

## PHY ED 121. Personal Conditioning. 1 Credit.

Principles of exercise physiology as they relate to participation in calisthenics and exercise with light apparatus. Develops conditioning programs appropriate for life-long fitness.
Spring.

## PHY ED 122. Training with Weights. 1 Credit.

This course is designed to introduce the student to weight training principles, methodologies, and techniques for improving muscular strength and endurance through program design. Methods of training will include machines, free weights, and training with and without apparatus. Orientation to equipment, safety, and proper technique will be emphasized.
Fall Only.

## PHY ED 137. Rhythmic Aerobics. 1 Credit.

An instructor-led group exercise program that emphasizes muscular and cardiovascular development using basic locomotor skills, simple dance steps, and rhythmic drumming activities performed to the beat of popular music. Course is not repeatable for credit.
Fall and Spring.
PHY ED 154. Tennis I. 1 Credit.
Basic skills and techniques in tennis; forehand, backhand, flat serve, volley, lob, smash, footwork, singles and doubles positioning and strategy, regular and no-add scoring, U.S.T.A. rules, care and selection of equipment.

## Physics (PHYSICS)

## Courses

## PHYSICS 103. Fundamentals of Physics I. 4 Credits.

A non-calculus physics sequence covering fundamentals of mechanics, Newton's laws, momentum, energy, power, fluid statics and dynamics, vibrations, waves, sound, heat transfer, and the kinetic theory of gases. Applications to the areas of biology, chemistry, earth science, and technology. P: MATH 104 with at least a C grade or WPT-MFND score $>465$ and WPT-AALG score $>525$ and WPT-TAG score >525 or ACT Math score >26 or SAT Math score $>630$, PHYSICS 203 or concurrent enrollment.
Fall and Spring.

## PHYSICS 104. Fundamentals of Physics II. 4 Credits.

A non-calculus physics sequence covering fundamentals of thermodynamics, electric forces and fields, DC and AC circuits, magnetism, electromagnetic waves, optics, and radioactivity. Applications to the areas of biology, chemistry, earth science, and technology.
P: PHYSICS 103 with at least a C grade or PHYSICS 201 with at least a C grade, PHYSICS 203 with at least a C grade, PHYSICS 204 or concurrent enrollment.
Fall and Spring.

## PHYSICS 141. Astronomy. 3 Credits.

A study of the solar system, stars, galaxies and universe. High school algebra and geometry competency is highly recommended. Full credit will not be granted for both PHYSICS 141, PHYSICS 143, or both PHYSICS 141 and PHYSICS 144.
Fall and Spring.

## PHYSICS 142. Observational Astronomy. 1 Credit.

Observation of solar system, galactic and extra-galactic objects, and introduction to basic observational techniques in astronomy. Includes telescopic and unaided eye observation, positional astronomy, astro-photography, optic spectroscopy, interpretation of astronomical data, and astronomy laboratory exercises. High school algebra and geometry competency is highly recommended.
Fall and Spring.
PHYSICS 143. The Solar System. 3 Credits.
Contemporary understanding of the Solar System; the sky and celestial motions; ancient astronomy; the Copernican revolution; light, gravity, orbits, and astronomical instruments; formation of the solar system; sun, planets and moons; asteroids, comets, meteors and meteorites; and the origin of life. High school algebra and geometry competency is highly recommended. Full credit will not be granted for both PHYSICS 141 and PHYSICS 143.
Fall Only.

## PHYSICS 144. Stars, Galaxies and the Universe. 3 Credits.

Contemporary understanding of stellar systems: historical development; light, gravity, atoms and nuclei; astronomical instruments; properties and life cycles of the Sun and stars; black holes; the Milky Way and other galaxies; cosmology. High school algebra and geometry competency is highly recommended. Full credit will not be granted for both PHYSICS 141 and PHYSICS 144.
Spring.

## PHYSICS 180. Concepts of Physics. 3 Credits.

Survey of physics, including motion, forces, momentum, energy, solids, liquids, gases, sound, heat, electricity, magnetism, light, atomic and nuclear physics. Designed for non science majors. Full credit will not be granted for both Physics 180 and 103, 104, 201 or 202.
Fall Only.

PHYSICS 181. Concepts of Physics Laboratory. 1 Credit.
Laboratory course to accompany Physics 180. Full credit will not be granted for both Physics 181 and 103, 104, 201 or 202.
P: Physics 180 or conc enr.
Fall Only.
PHYSICS 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
PHYSICS 201. Principles of Physics I. 4 Credits.
A calculus physics sequence for students of science and engineering covering fundamentals of mechanics, Newton's laws, momentum, energy, power, fluid statics and dynamics, vibrations, waves, sound, heat transfer, and the kinetic theory of gases.
P: MATH 202 with at least a C grade, or concurrent enrollment in MATH 202 with instructor consent, PHYSICS 203 or concurrent enrollment.
Fall and Spring.
PHYSICS 202. Principles of Physics II. 4 Credits.
A calculus physics sequence for students of science and engineering covering fundamentals of thermodynamics, electric forces and fields, DC and AC circuits, magnetism, electromagnetic waves, optics, and radioactivity.
P: Either PHYSICS 201 and PHYSICS 203 with at least a C grade in both or ENGR 214 with at least a C grade, PHYSICS 204 or concurrent enrollment
Fall and Spring.

## PHYSICS 203. Introductory Physics Lab I. 1 Credit.

Laboratory course to accompany PHYSICS 103 or PHYSICS 201.
Fall and Spring.

## PHYSICS 204. Introductory Physics Lab II. 1 Credit.

Laboratory course to accompany PHYSICS 104 or PHYSICS 202.
Fall and Spring.

## PHYSICS 310. Modern Physics. 3 Credits.

Modern physics has opened the door to exciting areas of exploration: very fast, very small, and very large. This course first examines the fast and small (relativity and quantum mechanics) then applies them to the large scale field of cosmology.
P: MATH 202
Spring Even.

## PHYSICS 420. Advanced Physics Laboratory. 1 Credit.

Upper-level experiments in Nuclear Physics, Optics and the experimental determination of fundamental physical constants.
P: Math 203 with at least a C grade, Physics 310 with at least a C grade.
Fall Odd.

## PHYSICS 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
PHYSICS 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
PHYSICS 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Political Science (POL SCI)

## Courses

POL SCI 100. Global Politics and Society. 3 Credits.
The course explores political power and human connections on a global scale. The course covers concepts and ideas on the interaction of governments, organizations, and peoples across regions, cultures, and communities. The course helps students develop a global outlook on their future prospects as citizens and professionals in a globalized world.
Fall and Spring.
POL SCI 101. American Government and Politics. 3 Credits.
The institutions and political processes of American National government and the nature of political analysis; the Constitution, ideological and cultural bases of American politics; the role of political parties, elections and interest groups; policy-making processes in the Congress, the presidency and courts.
Fall and Spring.
POL SCI 102. Introduction to Politics. 3 Credits.
What is the ideal form of government and society? A survey and analysis of ideas related to citizenship in the community, nation and world, with emphasis on competing political values/ideologies and civic engagement.
POL SCI 198. First Year Seminar. 3 Credits.
Reserved for New Incoming Freshman.
POL SCI 299. 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.
POL SCI 305. 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. Course examines the role of race and ethnicity in each policy issue. P: jr st; and POL SCI 101 or SOCIOL 100
Fall Only.

## POL SCI 310. The American Presidency. 3 Credits.

The president's role in public policy-making. Topics include the history of the presidency, presidential elections, the nature and use of presidential power, the organization and operation of the executive office, the presidential relationship with Congress and the bureaucracy, and presidential leadership.
P: Pol Sci 101.
Fall Even.
POL SCI 312. Community Politics. 3 Credits.
This course emphasizes the historical dimensions of community politics in the U.S. It also explores the role of grass roots social movements in shaping local politics.
P: none; REC: POL SCI 101.
Spring.
POL SCI 316. Congress: Politics and Policy. 3 Credits.
The role of Congress in American politics and policymaking, including the history of Congress, elections, representation, committees, political parties and leadership, rules and procedures, interest groups and lobbying, presidential-congressional relations, and the role of Congress in both domestic and foreign policy decisions.
P: Pol Sci 101.
Spring.

## POL SCI 318. Political Behavior. 3 Credits.

An introduction to political behavior that approaches the topics of elections, public opinion, voting behavior, mass media, and political socialization through the application of quantitative methods of analysis.
P: Pol Sci 100 or 101.
Fall Only.
POL SCI 322. Politics of Crime and Punishment. 3 Credits.
Focuses on the competing goals of public policy in criminal justice, from public order, due process, efficiency, rights and liberties. Analyzes the interplay of key actors including police, courts and prisons in policy-making and implementation. Includes the role of media and myth.

## POL SCI 333. Political Science Research Lab. 3 Credits.

Students will work with a small group of their peers to develop a research project on a contemporary topic related to politics. Over the course of the semester, students will develop a research question, conduct a literature review, gather and analyze data, and write a research paper. Along the way, students will read journal articles, books, and book chapters that will help them refresh their memories on research methods and statistics. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: POL SCI 101 and PSYCH 205. REC: COMM SCI 301 and POL SCI 318
Fall Odd.
POL SCI 340. Political Theory. 3 Credits.
The foundations of Western political theory from the Greek polis to the 20th century. Discusses and analyzes leading political theorists in their historical contexts and in terms of their basic ideas and concepts. Attaches the study of politics to the history of Western political thought and practice.
P: Pol Sci 100 or 101.
Fall Only.
POL SCI 349. American Political Thought. 3 Credits.
The history and development of American political thought, with attention to the thinkers and themes influential to controversies, ideologies, and institutions in American politics.
P: POL SCI 101 OR HISTORY 205 OR HISTORY 206 OR DJS 101
Spring.

## POL SCI 351. Comparative Politics. 3 Credits.

The course examines fundamental concepts in the study of the processes and outcomes of politics in a variety of country settings. It illustrates the rich diversity of political life, shows available institutional alternatives, explains differences in political regimes and outcomes, and communicates the importance of global political and economic changes.
P: POL SCI 100 or POL SCI 101
Fall and Spring.
POL SCI 353. Politics of Developing Areas. 3 Credits.
This course examines contemporary problems of comparative political development and changing patterns of political economy in developing areas. The main focus is on the prospects for democracy and economic prosperity after the Cold War.
P: Pol Sci 100 or 101.
Spring Odd.
POL SCI 360. International Relations. 3 Credits.
The course focuses on competing explanations for interaction between a variety of actors in international politics, and explores changes in the international system, including issues of global conflict, human rights, international organizations, and environmental security.
P: POL SCI 100 or POL SCI 101.
POL SCI 361. Immigration and Immigration Policy. 3 Credits.
The course explores the dynamics and evolution of U.S. immigration policies with attention to issues of restriction, integration, citizenship, and belonging. Social and cultural dimensions of immigration, divisions of power in immigration policy making and enforcement, and policies towards refugees and asylum-seekers are included.
P: jr st.
Fall Only.

## POL SCI 370. Foreign and Defense Policies. 3 Credits.

Explores the institutions and political processes related to U.S. foreign and defense policies, including the international challenges facing the United States, the nation's policy goals and their evolution over time, the strategies used to achieve those goals, and conflicts over policy implementation and its success.
Spring.

## POL SCI 378. 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: POL SCI 101 or PUB ADM 202 or PUB ADM 215
Fall Odd.
POL SCI 380. 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: jr st. REC: POL SCI 100
Spring Even.

## POL SCI 406. State and Local Government. 3 Credits.

Policy and institutional comparisons across states and local governments through hands-on research, placing a special focus on Wisconsin's local governments.
P: POL SCI 101 or PUB ADM 215
Spring.

POL SCI 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## POL SCI 480. Senior Seminar/Capstone in Political Science. 3 Credits.

This course is designed to be taken during the last semester of one's UW-Green Bay education to "cap off" training in political science and related fields. In this course, students will complete either a research paper that approaches the standards of graduate school, and thus professional norms of research and publishing, or a significant service learning project designed to put theoretical knowledge into practice. As a result, the course has two major objectives that are organized around important disciplinary research objectives: 1) to practice standard political science research methods and 2) to conduct applied research and activities in political science.
P: Completion of three UL courses required for the major.
Fall and Spring.

## POL SCI 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## POL SCI 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
POL SCI 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## POL SCI 499. 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.

## Psychology (PSYCH)

## Courses

## PSYCH 97. Math Preparation for Social Science Statistics. 1 Credit.

This course will cover the math preparation you will need to be successful in PSYCH 205 (e.g., order of operations, fractions, lines). We will pace the course so that we practice the math concepts that match up to each week's statistical concepts. Offered on a pass/no credit, non-degree credit basis only.
P: Concurrent enrollment in PSYCH 205
Fall and Spring.

## PSYCH 102. Introduction to Psychology. 3 Credits.

Understanding of behavior from psychophysiological, cognitive, social and clinical perspectives; important issues, methods and findings in the study of psychological processes.
Fall and Spring.

## PSYCH 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall Only.
PSYCH 203. Introduction to Lifespan Development. 3 Credits.
Human development from conception through death: physical development, social and emotional development, and psychological development. Topics may also include personality development, the development of language, intellectual development and creativity, and the process of human learning.
Fall and Spring.

PSYCH 205. Social Science Statistics. 4 Credits.
An introduction to descriptive and inferential statistics using social science examples. Data analysis and interpretation including computerized statistical software in a lab setting.
P: PSYCH 97; or Concurrent or prior enrollment in PSYCH 97; or MATH 102; or MATH 094; or WPT:MFND test score >=416; or Post-baccalaureate status
Fall and Spring.

## PSYCH 225. Career Planning. 1 Credit.

Provides students with the knowledge and resources necessary for effective career decision-making in college. The class sessions and assignments focus on self-assessment, learning and applying career development theories, exploring major and career options, and establishing goals for career/life planning.
Fall and Spring.

## PSYCH 299. 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.

## PSYCH 300. Research Methods in Psychology. 4 Credits.

Critical understandings of empirical research including research ethics, design, data collection, analysis, and communication. Completion of individual and group laboratory projects.
P: PSYCH 102; Previous completion and/or concurrent enrollment of PSYCH 205 or MATH 260 or BUS ADM 220
Fall and Spring.
PSYCH 308. Physiological Psychology. 3 Credits.
Introduction to the biological bases of behavior. Basic sensory, motor, and brain mechanisms are described in reference to normal and abnormal behaviors.
P: PSYCH 102 AND HUM BIOL 102 or HUM BIOL 240 or BIOLOGY 201/202 with a C or better
Fall and Spring.
PSYCH 310. Drugs and Behavior. 3 Credits.
Psychoactive drugs will be studied regarding their effects on the brain, behaviors and society.
P: PSYCH 102 AND HUM BIOL 102 or HUM BIOL 240 or BIOLOGY 201 \& BIOLOGY 202
Fall and Spring.

## PSYCH 315. Social Cognitive Affective Neuroscience. 3 Credits.

This course illustrates the biological bases of behavior with emphasis placed on the basics of neurobiology and the application of neuroscience to our understanding of social, cognitive, and affective processes such as self-control, decision-making, memory, language, and attention. Neuroscience seeks to understand the design and operating principles of the mind, as instantiated in the brain and body.

## P: PSYCH 102

Fall and Spring.
PSYCH 321. Sport and Performance Psychology. 3 Credits.
This course is intended to provide a general overview of sport and performance psychology with lectures, discussions, and interactive activities. Students will learn basic sport and performance psychology terms, concepts, models, and theories, as well as understand how they affect sport and other (e.g., music) performances.
P: PSYCH 102.
PSYCH 330. Social Psychology. 3 Credits.
An exploration of theory, method, and empirical results regarding individual behavior in groups. Major topics include social cognition, aggression, helping, and attraction.
P: Psych 102 AND Psych 300 or Comm Sci 301 or Psych 302
Fall and Spring.
PSYCH 331. Infancy and Early Childhood Development. 3 Credits.
Current theories, methods of study and research in the study of human development from conception through the early childhood years, and the interrelationships among biological, social, and psychological aspects of development.
P: PSYCH 203
Fall and Spring.

## PSYCH 332. Middle Childhood and Adolescent Development. 3 Credits.

This course examines salient issues concerning adolescent development. Socio-cultural, psychological and physical growth factors in the developmental process of the adolescent are examined.
P: PSYCH 203
Fall and Spring.

## PSYCH 343. Adult Development and Aging. 3 Credits.

Theory and empirical research concerning developmental processes across the adult life span; psychological, cultural and biological factors which influence development in young adulthood, middle adulthood and old age.
P: PSYCH 203
Fall and Spring.
PSYCH 344. 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, different approaches to understanding grief, and cross-cultural death practices and their relation to the American death system.
P: PSYCH 203; REC: PSYCH 300 or PSYCH 302.

## PSYCH 350. Cultural Psychology. 3 Credits.

A cross-cultural examination of core psychological processes and areas of study, such as cognition, emotion, development, and personality.
P: PSYCH 102
Fall and Spring.
PSYCH 380. Conservation Psychology. 3 Credits.
The psychology behind understanding and motivating humans to practice sustainable behaviors.

## PSYCH 401. Psychology of Women and Gender. 3 Credits.

The psychology of women examines traditional and feminist approaches to women in psychological theory and research as frameworks for understanding women's development and experience in family, academic, work, and relationship roles. The interacting influences of biology, socialization, and cultural context are considered. Identity development for males and females throughout the life span, as well as the development and variation of sexual orientation will be discussed.
P: PSYCH 102 or PSYCH 203. REC: PSYCH 203 and PSYCH 300 or PSYCH 302
Fall and Spring.
PSYCH 415. Industrial and Organizational 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: PSYCH 102.

## PSYCH 417. Psychology of Cognitive Processes. 3 Credits.

Contemporary theory and research on thinking processes; how people understand and interpret events around them; attention, recognition, thinking, memory, language, imagery and problem-solving.
P: PSYCH 102
Fall and Spring.
PSYCH 424. Psychology of Emotion. 3 Credits.
This is an advanced undergraduate psychology course designed to expose students to the science of emotion. Students will study the many ways in which biological, cultural, cognitive, and other factors can contribute to our emotional experiences.

## P: PSYCH 102 and PSYCH 300 or PSYCH 302.

PSYCH 429. Theories of Personality. 3 Credits.
Theories and research in psychology of personality and how biological, emotional, behavioral, social, and cognitive factors affect and are affected by personality.
P: Psych 102 AND Psych 203
Fall and Spring.

## PSYCH 435. Psychopathology. 3 Credits.

This is an advanced undergraduate psychology course designed to describe and critique the primary models for defining and evaluating normal and abnormal human behavior in American society. Students will learn about the many ways in which biological, emotional, behavioral, cultural, and cognitive factors can contribute to distress, impairment, and treatment, both to individuals and those around them.
P: PSYCH 102
Fall and Spring.
PSYCH 438. Counseling and Psychotherapy. 3 Credits.
This class provides an introduction to many contemporary approaches to counseling and their theoretical and research base. It also addresses issues relevant to professional practice in the field, along with the roles of development, values, ethics, and context/culture in the counseling process.
P: PSYCH 102
Fall and Spring.
PSYCH 440. Multicultural Counseling and Mental Health. 3 Credits.
This course involves an exploration of cultural groups, beliefs, and practices within the U.S. and focuses on ways that culture, race, ethnicity, and associated concepts, such as oppression and privilege, influence definitions and treatments of mental illness.
P: Psych 102 and sophomore status.

PSYCH 443. Spirituality and Development. 3 Credits.
This course explores how spirituality, religion, and faith reflect and represent important aspects of development across the lifespan. Important questions to address include the following: How may 'spirituality' be defined? How does religion influence character development? Discussion of theoretical, research, and practice applications.
P: Psych 203.

## PSYCH 450. Health Psychology. 3 Credits.

This course examines how health and illness are studied from a psychological perspective. Topics include coping with stress, leading a healthy lifestyle, factors influencing smoking, alcohol use, and exercise, the patient-practitioner interaction, and chronic and terminal illness.
P: PSYCH 102.

## PSYCH 471. Field Experience I. 2 Credits.

The course will focus on preparation to work with grieving children/adolescents. Students will learn about grief camps for children and help plan activities for Camp Lloyd. Students will prepare for working with the children and each other during Camp Lloyd week.
P: None; REC: PSYCH 344
Spring.

## PSYCH 472. Field Experience II. 1 Credit.

Students will gain hands-on experience working with grieving children at Camp Lloyd. Students will prepare for Camp, serve as a Camp Lloyd Buddy, and reflect on their experiences after camp. Course is repeatable for credit; may be taken 4 times for a total of 4 earned credits.
P: PSYCH 344; PSYCH 471.
PSYCH 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
PSYCH 490. Capstone in Psychology. 3 Credits.
An in-depth, integrative, interdisciplinary exploration of a topic that varies by section or semester. Course is not repeatable for credit.
P: PSYCH 300; Declared major in psychology; REC: Senior Status
Fall and Spring.

## PSYCH 492. Applied Research Lab. 3 Credits.

Students are accepted into an applied research lab to acquire in-depth applied research skills working on projects within a group lab setting. Hands-on data application, collection, and interpretation lead to presentations and potential publications. Course may be repeated 4 times for a total of 12 earned credits. Students should use the applications available from the Psychology Department to apply.
Fall and Spring.

## PSYCH 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
P: Psych 102 or Psych 203; 3.0 GPA in Psych and consent of instructor
Fall and Spring.
PSYCH 496. Research Assistantship. 1-12 Credits.
Students will assist faculty in conducting research. Responsibilities may include literature reviews, library investigations, questionnaire development, recruitment and interviewing of research participants, data collection, management of research studies, data entry, and some statistical analysis. Course is repeatable for credit; may be taken 12 times for a total of 12 credits.
P: PSYCH 102 OR PSYCH 203 and consent of instructor. REC: PSYCH 300
Fall and Spring.

## PSYCH 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st and gpa >or $=2.75$
Fall and Spring.
PSYCH 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or =2.50; or jr or sr st with cum gpa >or $=2.00$.
Fall and Spring.

## PSYCH 499. 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.

## Public Administration (PUB ADM)

## Courses

## PUB ADM 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
PUB ADM 202. Introduction to Public Policy. 3 Credits.
Contemporary issues in American public policy. Substantive public policies such as those dealing with the American economy, health care, energy, environmental quality, the welfare state and social programs. Models of the policy process are also considered.
FSS.

## PUB ADM 215. Introduction to Public Administration. 3 Credits.

Using case studies, this course explores the principal tools and methods for conducting public affairs, the external and internal elements affecting public agencies, and the role of these elements and the human dimension in creating and implementing public policies and programs.
Fall and Spring.
PUB ADM 220. Economics, Politics, and Government Action. 3 Credits.
Today, government plays a huge role in the economy in three broad ways. First, there is a large and growing array of economic laws and regulations. Second, the government provides a large range of services through various government programs and agencies. These include Social Security, Medicare, Medicaid, government housing, unemployment and disability insurance, and various poverty programs, among others. Finally, government programs need to be financed. These include the federal income tax, state income taxes, Social Security taxes, inheritance taxes, property taxes, and high excise taxes on goods such as gasoline, alcohol and tobacco products, among others.
Spring.
PUB ADM 225. Introduction to the Nonprofit Sector. 3 Credits.
The purpose of this course is to introduce students to the world of nonprofit organizations including the diverse range of organizations and the activities they engage in and the enormous range of services that the sector provides. The course takes a macro-level approach, focusing on the sector as a whole. Through community engagement and guest speakers, students learn the opportunities and career paths that exist in this field.
Spring.

## PUB ADM 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
PUB ADM 299. 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.
PUB ADM 301. Environmental Politics and Policy. 3 Credits.
U.S. and global environmental problems and their political implications. Emphasizes U.S. environmental politics, issues and controversies in environmental protection policy, the performance of governmental institution in response to environmental challenges, and strategies for environmental improvement.
P: POL SCI 101 or PUB ADM 202
Fall Only.

## PUB ADM 306. 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: POL SCI 101 or PUB ADM 202 or PUB ADM 215
Fall Even.

## PUB ADM 314. 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: POL SCI 101 or PUB ADM 202 or PUB ADM 215
Fall Only.

## PUB ADM 315. Public and Non-Profit Management. 3 Credits.

Using applied learning techniques, this course explores management in public and nonprofit organizations from the perspective of a manager. Topics include board leadership, role of executive, motivation, marketing, fundraising, planning, and more. Students investigate and analyze the management practices of a local organization.
P: POL SCI 101 or PUB ADM 202 or PUB ADM 215 or PUB ADM 225
Fall Only.

## PUB ADM 322. 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. Combines earth sciences and natural sciences with mapping and planning to understand key aspects of adapting our built environment to not impose further on our natural environments, and in fact to remediate some of the damage caused to natural environments and social well-being. Emphasizes adaptive environmental planning and implementation at the national, state, and local levels in the contexts of growing human populations, decreasing natural resources, and climate change.
P: none. REC: EPP 102 or ENV SCI 102
Spring.
PUB ADM 326. Philanthropy: Civic Engagement through Giving. 3 Credits.
A hands-on, student-led course where students give away an actual grant to a local organization. After studying community needs, interviewing experts, gathering local data, working with nonprofits and learning from area philanthropists, students choose how to allocate actual funds (provided by community partners) to one or more to organizations in the community. Appropriate for all majors.
Spring.

## PUB ADM 335. 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.
PUB ADM 336. 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.
PUB ADM 337. 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.
PUB ADM 338. 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.
PUB ADM 339. 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.
PUB ADM 344. Leadership in Organizations. 3 Credits.
There is no single leadership theory or approach that will universally apply across all situations. The purpose of this course is to introduce students to the major theories and models of leadership with a focus on how we can use these theories and models to transform our leadership in practice. Through the use of interactive course activities, students will identify strong leadership practices and distill principles of exemplary leadership for use in their own organizations and communities.
P: None. REC: ORG LEAD 198
FSS.
PUB ADM 345. Human Resource and Risk Management. 3 Credits.
This course is applicable to organizations which utilize paid or volunteer staff and face multiple sources of risk to their functioning. Topical coverage will include risk assessment and planning as well as staff development, performance standards, and professional practices regarding proper interviewing, hiring, evaluation and dismissal procedures. Legal requirements and the institutional setting for both human resource and enterprise risk management will be examined.
REC: PUB ADM 202 or PUB ADM 215 or PUB ADM 225
Fall and Spring.
PUB ADM 407. Service in the Public Sector. 3 Credits.
This course explores what is meant by public service, with a special focus on service in local governmental settings. The course considers case studies from the International City/County Management Association and what management and leadership in local government entails. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: POL SCI 101 or PU EN AF 202 or PU EN AF 215 or PU EN AF 225
Fall Only.

## PUB ADM 408. 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: POL SCI 101 or PUB ADM 202 or PUB ADM 215 or PUB ADM 225
Fall Only.

## PUB ADM 415. 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: POL SCI 101 or PUB ADM 202 or PUB ADM 215
Spring.

## PUB ADM 425. Fundraising and Marketing for Nonprofits. 3 Credits.

The course is designed for students aspiring to manage a nonprofit or serve on a Board of Directors. Throughout the semester, students develop a portfolio of marketing and fundraising plans and materials for a nonprofit organization. Emphasis on writing for social media, case statements, total development plans, and grant seeking.
P: PUB ADM 202 or PUB ADM 215 or PUB ADM 225
Fall Only.
PUB ADM 428. Public and Nonprofit Program Evaluation. 3 Credits.
A course that develops a working understanding and selected skills relating to the conduct of program evaluations. This course focuses on skills needed to identify and measure program outcomes in order to ensure the effectiveness of programs. Throughout the semester, students develop an actual evaluation plan in partnership with a local public or nonprofit organization, developing professional skills including writing, presenting, communicating, and working in teams.
P: POL SCI 101 or PUB ADM 202 or PUB ADM 215 or PUB ADM 225
Spring.

## PUB ADM 430. Seminar in Ethics and Public Action. 3 Credits.

A capstone course intended to introduce a range of ethical concerns in public affairs. Through theoretical and case study readings and applied projects, students deal with ethical issues and varied responses to them.
$P$ : Junior standing
Spring.

## PUB ADM 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
$P$ : min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## PUB ADM 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
PUB ADM 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
PUB ADM 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## PUB ADM 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## PUB ADM 499. 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.

## Supply Chain Management (SCM)

## Courses

## SCM 200. Principles of Supply Chain Management. 3 Credits.

This is an introductory course in supply chain management (SCM). This will allow students to understand the components of supply chain management; its role within the function and across other functions in an enterprise.
P: BUSAN 230 AND (BUSAN 220 or MATH 260 or PSYCH 205 or ORG LEAD 346)
Fall and Spring.
SCM 298. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## SCM 380. Project Management. 3 Credits.

Project management is an essential component in today's business environment, particularly in Supply Chain Management. This course covers the project management methodology recommended by the Project Management Institute, USA (PMI). It prepares students for successfully managing projects or new initiatives in organizations from inception to completion in a consistent and structured manner. This course provides standardized terms and exposes students to the knowledge area, process groups, and processes defined in the Project Management Book of Knowledge (PMBOK) and used in project management worldwide. It prepares students for clearly defining the scope of a project, including budgeting and cost management, human resource planning, communication planning, stakeholder analyses, and submission of the final product/service to operations associated with a project.
P: BUSAN 230 AND (BUSAN 220 or MATH 260 or PSYCH 205 or ORG LEAD 346)
Fall and Spring.

## SCM 381. Operations Management. 3 Credits.

The first part of the operations management course will provide features of production/service systems, methods of modeling, and the control system for operations/service. Topics include aggregate planning, forecasting techniques, workforce, and operations scheduling, and material requirement planning. The second part will cover the models and techniques for managing inventory systems, the deterministic and stochastic inventory models, and lot sizing in continuous and periodic review systems.
P: Overall minimum GPA of 2.5
Spring.

## SCM 383. Enterprise Resource Planning. 3 Credits.

The Enterprise Resource Planning (ERP) course provides details on the need and the use of an ERP system in supply chain management (SCM) in industries. It provides the basic structure of an ERP system in an organization. It is a hands-on course to be taught in a computer lab to train students on the use of an ERP system. This course will provide training on various aspects of SCM functions such as how to: (1) create/modify/delete an itemmaster, a vendor-master, a purchase order and a contract; (2) request an advance from accounts; (3) check inventory of raw material, work-in-progress (WIP), and finished goods; and (4) look for demands. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: SCM 200 and an overall minimum GPA of 2.5
Fall Only.

## SCM 384. Supply Chain Management. 3 Credits.

This course allows students to understand the components of Supply Chain Management (SCM), and its role within and across the function in an enterprise. The objectives of supply chain management are to create value, build a competitive infrastructure, leverage worldwide logistics, synchronize demand and supply, and to measure performance. SCM deals with storage and distribution of goods and services, in the right quantity, right condition, at the right time, and in the right place. The goal of this course is to provide an overview of the supply chain management function and associated concepts. The course provides an understanding of the activities involved in this function. This course also provides a basic understanding of the analytical tools and applications used in SCM. The course introduces some challenges in managing global supply chains. The course provides an opportunity to work in teams, explore a real-life situation related to concepts taught in the course, and to do a research project. This course has been identified as a Cofrin School of Business High Impact Practice (HIP) course. HIPs are rigorous courses that include engaging teaching methods such as regular feedback, peer and faculty interaction, structured reflection, and application of knowledge.
P: SCM 200
Fall and Spring.

## SCM 434. Logistics Management. 3 Credits.

This course is about logistics and transport management. The course allows students to deepen their knowledge and understanding of various logistics \& transportation management components, their role across other functions in an enterprise, and their importance in the global business environment. The primary objective of logistics management is to provide support for the storage and distribution of goods and services, from an enterprise to customers, and any returns from customers to an enterprise with or without channel partners. This course aims to build on the learnings from the previous SCM courses and provide an in-depth understanding of the roles of the logistics function, concepts, and principles used in addressing the needs of an enterprise while minimizing the costs and environmental impacts.
P: SCM 200 and overall minimum GPA of 2.5
Fall Only.

## SCM 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## SCM 496. Project/Research Assistantship. 1-6 Credits.

The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
Fall and Spring.
SCM 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
SCM 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
Fall and Spring.

## Sociology (SOCIOL)

## Courses

## SOCIOL 100. Introduction to Urban Studies. 3 Credits.

Examines the richness and complexity of the human experience in modern cities and their broader regional context. The city is seen as an arena in which interrelationships between enduring human concerns and social institutions are expressed and asks how the city influences these interrelationships. Likewise, in what manner do established institutions and concerns influence the city and the metropolitan region of which they are a part? This course is an exploration of cities and how their broader institutional contexts evolve over time.
Fall and Spring.

## SOCIOL 101. Introduction to Sociology. 3 Credits.

Major sociological concepts and ideas and their application to contemporary societies.
Fall and Spring.

## SOCIOL 130. Contemporary Social Problems. 3 Credits.

Sociological analysis of the nature, extent, causes, and potential solutions to selected major social problems. Topics may include poverty, crime and violence, drug abuse, family problems, quality of education, inadequate health care, population problems, intergroup conflict, and threats to the environment.

## SOCIOL 160. Sociology of Human Sexuality. 3 Credits.

Sociological overview of issues in human sexuality. Course is based on sociological investigations of the origins, nature and biosocial consequences of varying customs and ideals of human sexuality. Among topics that may be covered are: sex and family life, contraception, abortion and social power, violations of sexual norms and ideas about sexual propriety, origins and impact of sexual liberation movements, sociosexual aspects of epidemics, sociological interpretations of sexual dissatisfactions.

## SOCIOL 201. City Life and Globalization. 3 Credits.

The course explores the effect of globalization on people, specifically on urban processes worldwide. This course is comparative in nature and will explore global processes as they challenge people living in urban areas worldwide. The course explores different survival strategies on how to make cities better for a majority of the people.
Spring.

SOCIOL 203. Ethnic and Racial Identities. 3 Credits.
The character of racial, religious and ethnic minority groups; social and economic adjustments in American society; the role of private and public agencies.
P: SOCIOL 101 or ANTHRO 100
Fall Only.
SOCIOL 216. Native American Landscapes:Imagined and Lived Spaces. 3 Credits.
The course will explore the relationship between time and space within Native American cultures. The course will compare North American indigenous landscapes and Andean indigenous landscapes.

SOCIOL 220. Sociology of Marriage and the Family. 3 Credits.
Marriage and the family as social institutions in a changing world. Historical changes and societal variations in family patterns. Changes over the life cycle. Explores the sources and consequences of a variety of family forms.

## SOCIOL 231. Crime and Criminal Justice. 3 Credits.

Explores the nature of crime and critically reviews ideas about definitions, causes, and solutions. Includes an introduction to the day-to-day functioning of the criminal justice system, the police, lawyers, courts, and correctional personnel.
Fall Odd.
SOCIOL 235. Introduction to Social Psychology: A Sociological Perspective. 3 Credits.
Introduction to the study of social psychology with focus on sociological contributions to the study of social interaction and small group theory; topics may include: socialization, motivation, attitudes, values, communications, leadership.
P: SOCIOL 101
Spring Odd.

## SOCIOL 238. Sociological Perspectives on Gender. 3 Credits.

A sociological examination of roles assigned to women and men in society, including the experiences of marriage, parenthood, employment and occupational attainment. Pays particular attention to gender role socialization and its cultural reinforcement, to patterns of gender relations and to ongoing changes.
SOCIOL 246. Juvenile Delinquency. 3 Credits.
Overview of history and theories of juvenile delinquency, family and school relations, and best practices and programs in dealing with juvenile delinquency.
P: None. REC: SOCIOL 101 or ANTHRO 100.
SOCIOL 299. 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.

## SOCIOL 302. Social Stratification. 3 Credits.

Systems of hierarchical ranking in American and other societies, including castes, estates, and social class; classical and contemporary theories of social class and social inequality; intersection of inequalities based on social class, race, gender; studies of social class structure, power, and mobility.
P: SOCIOL 101
Spring Even.
SOCIOL 303. Race and Ethnic Relations. 3 Credits.
Comparative study of race and ethnic relations in the United States and other countries. The focus is on theories of race relations and ethnic stratification and the importance of these issues in national and international perspective. Case studies of ethnic relations in particular countries (e.g., South Africa, Brazil, Malaysia, Lebanon, Soviet Union) will be emphasized.
P: SOCIOL 101 or SOCIOL 203
Fall Odd.
SOCIOL 304. Deviant Behavior. 3 Credits.
Foundations of morality and the relationship between morality and deviance; positive and negative aspects of both deviance and conformity. P: SOCIOL 101.

SOCIOL 307. Social Theory. 3 Credits.
Critical analysis of classical and contemporary social theories with attention to the social and intellectual context and contemporary application.
P: SOCIOL 101
Fall Even.
SOCIOL 308. Sociology of the Family. 3 Credits.
A sociological approach to marriage and families in American society: historical changes in family life; the problems of defining family; social class; ethnicity and gender as key variables in family power; life transitions; and divorce and remarriage.
P: sophomore standing AND SOCIOL 101 or PSYCH 203 or ANTHRO 100
Fall Only.

SOCIOL 310. Urban Sociology. 3 Credits.
The study of social life and population groups in the urban environment. Our concern is with the social and psychological consequences of city life and the political and economic forces which have produced the industrial and corporate cities of the present day. Other topics include theories of "community," the location of industrial and commercial areas, the distribution of racial and ethnic groups, and urban problems such as poverty, housing, and public services.
P: jr st; and SOCIOL 100 or PUB ADM 202 or SOCIOL 101
Fall Only.
SOCIOL 311. Collective Behavior and Social Movements. 3 Credits.
Structure and processes of crowds, social movements and masses; societal contexts and relationships to social change.
P: SOCIOL 101.
SOCIOL 313. The City Through Time and Space. 3 Credits.
Analysis of human settlement and the influence of social, economic and technological change on urban structure and the aesthetic qualities of city scapes in historical and cross-cultural settings.
P: jr st; and Ur Re St 100 or 341 or Geog 341.
Spring.
SOCIOL 314. Suburbs. 3 Credits.
The study of suburbanization and suburban lifestyles has long been secondary to general focus on the central city and urban neighborhoods in the urban disciplines (urban geography, urban sociology). In this recentering of urban study on suburban communities, we look at the development of suburbs in the early modern period, the expansion of suburbs in the post-WWII era, and the emergence of a new suburban way of life in the 21st Century.
P: UR RE ST 100
Spring.
SOCIOL 315. Street Gangs in America. 3 Credits.
Organization of and subculture of street gangs in American communities; differences among ethnic/racial street gangs; representation of gang identity through graffiti, tattoos, clothing, music; gang membership and wannabes.
P: Sociol 101 or Anthro 100 or Ur Re St 100.
Spring Odd.

## SOCIOL 316. Criminal Justice Systems, Administration, and Processes. 3 Credits.

Explores the varied sub-systems that make up our criminal justice system, with a strong focus on the day-to-day functioning of the criminal justice system. Students will work through the organizations and procedures that start with law enforcement on the street, leading through arrests, the criminal court process, sentencing, incarceration, and eventual release and reintegration. Throughout the course, students will learn the relevant constitutional law relevant to the operations of the different sub-systems.
REC: SOCIOL 231
Fall Only.

## SOCIOL 320. Sociology of Religion. 3 Credits.

Study of religious institutions and religious movements; sociological theories about the origin of religions; sociological study about the effects of religion in contemporary society.
P: SOCIOL 101 or ANTHRO 100
Fall Even.
SOCIOL 321. Topics in Sociology. 3 Credits.
Explores a single theme from a sociological perspective. Course is repeatable for credit if topics differ.
P: SOCIOL 101
Fall and Spring.
SOCIOL 323. Asian American Communities in the United States. 3 Credits.
Review of Asian immigration to the United States; formation of ethnic communities; prejudice and discrimination against Asian groups; and current issues affecting Asian Americans.
P: jr st; and ANTHRO 100 or SOCIOL 101 or SOCIOL 203 or UR RE ST 100
Spring Odd.
SOCIOL 324. Latino Communities in the United States. 3 Credits.
Survey of Latino communities in the United States, taking an interdisciplinary approach exploring Latino voices from the Humanities and Social Sciences. The course will explore issues of formation of ethnic communities, the diversity among Latino communities and current issues affection Latinos in the U.S. such as immigration policy, bilingual education, and urban issues impacting Latino communities.
Spring Odd.

## SOCIOL 325. Research Methods in Sociology \& Anthropology. 3 Credits.

Overview of research methods used in sociology and anthropology, including codes of ethics, research quantitative and qualitative methods, role of institutional review board, development of research proposal, and case studies.
P: SOCIOL 101 or ANTHRO 100. REC: PSYCH 205
Spring.

SOCIOL 330. The Sixties. 3 Credits.
Overview of history and events of the 1960s, including Vietnam War, anti-war protests, civil rights, Summer of Love, music and culture.
P: SOCIOL 101 or ANTHRO 100
Spring Odd.

## SOCIOL 335. Social Psychology: A Sociological Perspective. 3 Credits.

Sociological analysis of the origins and development the self through the socialization process. Emphasis is placed on the social influence of social institutions, organizations, and significant others on identity, behavior and attitudes. Explores the various interactional dynamics involved in social process with an emphasis on analysis of theory and research in sociology.
P: SOCIOL 101 or ANTHRO 103. REC: SOCIOL 235
Spring.

## SOCIOL 355. Environmental Sociology. 3 Credits.

Explores the socio-cultural foundations of our relationship with the natural environment. Examines the relationship between environmental degradation and social, political, and economic structures. Explores beliefs and values about the environment and their expression in various forms of environmentalism and environmental movements. Also analyzes the presentation of environmental issues in cultural, political, and scientific domains.
P: SOCIOL 101 or ANTHRO 100
Fall Odd.
SOCIOL 357. Environmental Justice. 3 Credits.
Sociological analysis of how environmental problems such as pollution, ecological destruction, and climate change are experienced differently across race, gender, social class, and region. The focus is on justice and how it operates in social institutions such as economy, politics, science and technology and the larger culture with regard to the natural environment.
Spring.
SOCIOL 375. Sociology of Sexual and Intimate Relations. 3 Credits.
The social construction of intimacy and sexuality in the development of self and personal life with emphasis on gender and intimate experience; changing ideas of love and erotic pleasure; and mass cultural influences on intimate and sexual relations.
P: SOCIOL 101 and two other soc sci courses.
Spring Even.

## SOCIOL 404. Criminology. 3 Credits.

Criminology is a survey of the theories and methods sociologists use to study crime and delinquency. The course presents the disciplinary history of criminology and critically examines the structure and function of the criminal law and punishment.

## P: SOCIOL 101 or DJS 204

Spring Even.

## SOCIOL 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## SOCIOL 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
SOCIOL 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## SOCIOL 499. 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.

## Social Work (SOC WORK)

## Courses

SOC WORK 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
SOC WORK 202. Introduction to Social Services. 3 Credits.
Overview of the disciplinary distinctions within human services and career opportunities in the field; explores fields interfacing with vulnerable and oppressed societal groups.
Fall and Spring.

## SOC WORK 204. Sustainability and Social Problems. 3 Credits.

Social work and human service systems roles in promoting environmental sustainability and attention to intertwined social problems are examined in this course.
Spring.

## SOC WORK 213. Human Trafficking. 3 Credits.

This course will examine types of human trafficking; provide an understanding of the scope of the problem, both domestically and globally; and explore responses to addressing this complex human rights issue.

SOC WORK 250. You and Your Future: Living and Working in an Aging Society. 3 Credits.
This interactive service learning course explores contemporary topics in aging including anti-aging technology, multi-generational workplace issues, public policy issues, family and intergenerational caregiving, and programs and services for older adults. Second Life virtual reality technology is used in the course.
SOC WORK 299. 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 301. Research Methods for Generalist Social Work Practice. 3 Credits.

Provides an overview of the stages of design and implementation of research in the social sciences. Formulation of research questions, development of a research plan, and collection and analysis of data are examined. Compares and contrasts a variety of approaches including experimental designs, field research, qualitative and quantitative methods, program evaluation, and historical research. Highlights importance of using research to inform social work practice, and practice to inform research.
P: major in SOC WORK; PSYCH 205 or MATH 260 or BUS ADM 220; concurrent enrollment in SOC WORK 311, SOC WORK 323, \& SOC WORK 372.
Spring.

## SOC WORK 304. Foundations of Crisis Intervention. 3 Credits.

Course teaches foundational application of crisis theory and principles necessary for entry level positions in crisis related services. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
Fall Only.
SOC WORK 305. The Social Work Profession. 3 Credits.
Orientation to the knowledge, skills and values of professional social work practice. Definition of professional competencies expected of a Bachelor of Social Work graduate and their relationship to field training experience.
P: major in Soc Work; WF 105, or concurrent enrollment; concurrent enrollment in SOC WORK 313 \& SOC WORK 371
Fall Only.
SOC WORK 307. Ethics in Practice. 3 Credits.
Course examines ethics in practice within human services including critical analysis of complex issues which influence decision-making.
P: None. REC: Sophomore standing.
SOC WORK 311. Foundations of Social Welfare Policy. 3 Credits.
Overview of the U.S. social welfare institution, including the development of policies and services to meet social problems and the institutional arrangements that provide people with the resources and services to meet their needs.
P: SOC WORK 305 and concurrent enrollment in SOC WORK 301, SOC WORK 323, and SOC WORK 372
Spring.
SOC WORK 313. Skills I: Professionalism \& Teamwork. 2 Credits.
Instruction and practice in social work values and ethics, along with professional behaviors and writing, across practice settings. Skill development is emphasized and reinforced through a service-learning component, which provides a framework for determining readiness to progress to the Senior Field Practicum.
P: Major in Social Work; conc enr in Soc Work 305 \& Soc Work 371.
Fall Only.

SOC WORK 323. Skills II: Beginning Interviewing. 1 Credit.
Instruction and practice in basic interviewing skills for the beginning social work professional. Course also includes preparation for the social work field practicum experience.
P: Major in Social Work; SOC WORK 313; conc enr in Soc Work 301, SOC WORK 311, and SOC WORK 372
Spring.
SOC WORK 330. Understanding Diversity, Challenging Oppression: A Service Learning Course for Helping Professionals. 3 Credits.
Service learning course on working with diverse groups and communities for persons considering a career in the helping professions.
$P$ : Sophomore status.
SOC WORK 340. Strengths-Based Group Facilitation. 3 Credits.
This course introduces students to group counseling techniques such as facilitating the process forming a group, determining group type, purpose, size, leadership, establishing goals and clarifying group rules.
P : Sophomore standing.
SOC WORK 342. Psychopharmacology. 2 Credits.
This course introduces students to the basic concepts of psychopharmacology and the function of the organs and systems of the human body and brain. The course defines biological and chemical aspects of various drugs as well as discuss bio-psycho-social- and environmental approaches to understanding substance use.
P: Sophomore standing
Spring.

## SOC WORK 344. Grant Writing for Success. 2 Credits.

This course introduces students to common components of grant writing for human services organizations, including development of goals, objectives, methods, evaluation plans, and budgets.
P : sophomore standing.
SOC WORK 351. Overview of the Child Welfare System. 3 Credits.
Analysis of the place of child welfare policies and services among society's general provisions for family welfare and support. Overview of child welfare programs and services and the broad principles underlying delivery of services.
Fall Only.

## SOC WORK 371. Human Behavior and the Social Environment I. 2 Credits.

Examines the biological, psychological, social-structural and cultural sources of the behavior of individuals and organizations from the perspective of systems analysis, human diversity and goal-directed behavior; applications to social work practice.
P: Major in SOC WORK; PSYCH 203; concurrent enrollment SOC WORK 305 and SOC WORK 313.
Spring.
SOC WORK 372. Human Behavior and the Social Environment II. 1 Credit.
Application of concepts from HBSE I with special attention to human diversity.
P: Major in SOC WORK, SOC WORK 371; concurrent enrollment SOC WORK 301, 311, 323
Spring.

## SOC WORK 375. Family Principles and Patterns. 3 Credits.

This course is designed to increase familiarity with the family unit and its social role. Topics include basic principles of the family life cycle, how privilege and social positioning impact family life, and typical transitions and challenges experienced by the family.
P: Jr Standing.
SOC WORK 380. Cross Cultural Diversity and the Helping Professions. 3 Credits.
Students who will work with diverse individuals and groups seeking professional services will learn to do so in a culturally relevant manner. Course content specifically focuses on the application of culturally relevant work in the helping professions.
P : sophomore standing.
SOC WORK 395. Special Topics in Social Work. 1-3 Credits.
In-depth coverage of topics not covered by regular courses, such as substance use, mental health problems, interpersonal violence, PTSD, aging, homelessness, LGBTQ issues, religion, spirituality, globalization, and others. Offerings of different topics can be repeated for credit.
P: so st.; REC: WF 105.

## SOC WORK 400. Field Seminar I. 1 Credit.

This 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 field internship is completed concurrently with the course.
P: Major in Social Work; Concurrent enrollment in SOC WORK 402, SOC WORK 411, and SOC WORK 413.
Fall Only.
SOC WORK 401. Field Seminar II. 1 Credit.
This 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 field internship is completed concurrently with the course.
P: Major in Social Work; SOC WORK 400; Concurrent enrollment in SOC WORK 403, SOC WORK 420, and SOC WORK 423.
Spring.

## SOC WORK 402. Field Practicum I. 4 Credits.

Actual social service work through placement in a social service agency.
P: Major in SOC WORK, conc enr in SOC WORK 400, SOC WORK 411, \& SOC WORK 413, earned grade of "C" or higher in SOC WORK 313.
Fall Only.

## SOC WORK 403. Field Practicum II. 4 Credits.

Actual social service work through placement in a social service agency.
P: Major in SOC WORK, SOC WORK 402 and conc enr in SOC WORK 401, SOC WORK 420 \& SOC WORK 423
Spring.

## SOC WORK 411. Micro Methods I. 3 Credits.

Application of social work methods with individuals, families and groups; focus on assessment, planning and intervention strategies with an introduction to evaluation and termination processes.
P: Major in SOC WORK; concurrent enrollment in SOC WORK 400, SOC WORK 402 \& SOC WORK 413.
Fall Only.
SOC WORK 413. Skills III: Advanced Interviewing Skills. 1 Credit.
Instruction and practice in advanced interviewing skills needed by the beginning social work professional.
P: Major in Social Work and SOC WORK 323; conc enr in SOC WORK 400, SOC WORK 402 \& SOC WORK 411.
Fall Only.

## SOC WORK 420. Micro Methods II. 3 Credits.

Theory and methods of planned change interventions with specific populations at risk; integration of micro and macro level practice, with an emphasis on community organizing; evaluation of practice; and termination.
P: Major in Social Work; SOC WORK 411; concurrent enrollment in SOC WORK 401, SOC WORK 403 \& SOC WORK 423
Spring.

## SOC WORK 421. Micro Methods II. 2 Credits.

Theory and methods of planned change interventions with specific populations at risk; integration of micro and macro level practice, with an emphasis on community organizing; evaluation of practice; and termination.
P: Major in SOC WORK, SOC WORK 411; concurrent enrollment in SOC WORK 401, SOC WORK 403, and SOC WORK 423
Spring.
SOC WORK 423. Skills IV: Intervention Strategies. 1 Credit.
Instruction and practice in professional interactional skills focusing on small and large groups, and specialized intervention skills.
P: Major in Social Work; SOC WORK 413; conc enr in SOC WORK 401, SOC WORK 403 \& SOC WORK 420
Spring.
SOC WORK 431. Social Policy Analysis I. 2 Credits.
Instruction and practice in analyzing social problems and related policies; observation with local government policy making; application of skills to specific policy and its implementation in the community.
P: SOC WORK 311, SOC WORK 370, SOC WORK 371; conc enr in SOC WORK 461; Major in SOC WORK
Fall Only.

## SOC WORK 433. Social Policy Analysis II. 2 Credits.

Theory and methods for planned social policy change; development and implementation of a planned change project as a follow up to the social problem and policy analyzed in Social Policy Analysis I.
P: Soc Work 431 and conc enr in Soc Work 463, Major in SOC WORK
Spring.
SOC WORK 441. Macro Methods I. 3 Credits.
Application of social work methods to planned changes with organizations and communities; explores how agency and community contexts shape social work practice. Instruction and practice in analyzing social problems and related policies; observation with local government policy making; application of skills to specific policy and its implementation in the community.
P: Major in SOC WORK, SOC WORK 311; concurrent enrollment in SOC WORK 461
Fall Only.

## SOC WORK 442. Macro Methods II. 3 Credits.

Continued application of social work methods to planned changes with organizations and communities; explores how agency and community contexts shape social work practice. Instruction and practice in analyzing social problems and related policies; observation with local government policy making; application of skills to specific policy and its implementation in the community.
P: Major in SOC WORK, SOC WORK 441; concurrent enrollment SOC WORK 462.
Spring.

SOC WORK 451. Child Welfare Practice. 3 Credits.
Overview of social work practice in child welfare. Examinations of nature and causes of child maltreatment and the role of child welfare. Exploration of the ways practice principles in child welfare are applied in the assessment and intervention phases of helping in the delivery of services.

## P: SOC WORK 351 and SOC WORK 370, Major in SOC WORK

Fall Only.
SOC WORK 455. First Nations Futures and Decolonizing Social Work. 2 Credits.
This course introduces students to the impact of colonization on First Nations societies, and decolonization in terms of First Nations resistance, reclamation, and resilience. Decolonization in social work is also explored.
Spring.
SOC WORK 461. Applied Research I. 2 Credits.
Introduction to the principles of program evaluation and community research. Design and implement an evaluation research project.
P: Major in Social Work; SOC WORK 301; conc enr in Soc Work 431
Fall Only.

## sOC WORK 462. Applied Research II. 1 Credit.

Analyze and interpret data from community research project; make recommendations for new or changed programs or policies.
P: Major in SOC WORK, SOC WORK 461; concurrent enrollment in SOC WORK 442
Spring.

## SOC WORK 463. Applied Research II. 2 Credits.

Introduction to program evaluation designs; analyze and interpret data from community research project; make recommendations for new or changed programs or policies.
P: Major in Social Work; SOC WORK 461; conc enr in SOC WORK 433
Spring.
SOC WORK 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## SOC WORK 492. Supplemental Supervision. 1 Credit.

This course provides social work students in program-specified social work field practicum sites the supervision of a qualified social worker as supervisor. Course is repeatable for credit.
Fall and Spring.
SOC WORK 495. Teaching Assistantship. 1-6 Credits.
The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.

## SOC WORK 497. Internship. 1-12 Credits.

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.
SOC WORK 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## SOC WORK 499. 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.

## Spanish (SPANISH)

## Courses

SPANISH 100. Spanish Language through Culture. 3 Credits.
An introduction to the Spanish language that focuses as much on the cultural aspects of the language as on the language itself. Students can expect to learn basic elements of vocabulary and structure while learning about the people who speak the language in the US and around the world.
SPANISH 101. Introduction to the Spanish Language I. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Spanish.
Fall Only.
SPANISH 102. Introduction to the Spanish Language II. 4 Credits.
Development of basic ability in understanding, reading, speaking and writing in Spanish.
P: none; REC: 1 yr h.s. or 1 sem college Spanish.
Spring.
SPANISH 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman
Fall Only.
SPANISH 201. Intermediate Spanish Language I. 3 Credits.
Further development of the ability to understand, read, write and speak Spanish.
P: none; REC: 2 yrs h.s. or 2 sem college Spanish.
Fall Only.
SPANISH 202. Intermediate Spanish Language II. 3 Credits.
Further development of the ability to understand, read, write and speak Spanish.
$P$ : none; REC: 3 yrs h.s. or 3 sem college Spanish.
Spring.

## SPANISH 222. Special Topics. 3 Credits.

Spanish 222 is an intermediate-level course meant to serve as an extension of learning that took place in Spanish 202. Spanish 222 has an emphasis on continued language proficiency in Spanish and includes the study of different cultural topics, including literature, film, and other cultural products and practices. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: SPANISH 202
Fall and Spring.
SPANISH 224. Heritage Language and Culture. 3 Credits.
This course is designed for Heritage Learners of Spanish. A Heritage Learner is an individual who was born and raised in a home where Spanish language is spoken, who has some ancestral or historical connections Spanish and some degree of affective perception of it. This course will help a heritage learner develop linguistic competence, academic/professional skills, and cultural awareness.
Fall Only.
SPANISH 225. Composition and Conversation. 3 Credits.
Development of greater fluency through classroom practice in conversation and composition.
P: none; REC: 4 yrs h.s. or 4 sem college Spanish.
Fall Only.
SPANISH 285. Study Abroad: Spain and Latin America. 3-15 Credits.
P: cons of instr \& prior trip arr \& financial deposit.
SPANISH 299. 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.
SPANISH 324. Advanced Heritage Language and Culture. 3 Credits.
Continues development of heritage language and culture knowledge improving linguistic competence, academic/professional skills, and cultural awareness.
P: SPANISH 224 or instructor permission
Spring.
SPANISH 325. Advanced Spanish Conversation and Composition. 3 Credits.
Continues development of fluency through intensive practice and study of the spoken and written language. Stresses accurate use of grammatical structures and sensitivity to differences in style, tone and levels of language from colloquial to formal.
P: Spanish 225.
Spring.

SPANISH 329. Representative Spanish and Latin American Authors. 3 Credits.
Important novels, plays, poems, and essays representative of major eras and movements of Spanish and Latin American societies foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and differing treatment of recurring themes. Offered in the language. May be repeated for credit when different author is studied.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Fall Only.
SPANISH 345. Advanced Spanish Grammar. 3 Credits.
In-depth review and continued study of Spanish grammar.
P: SPANISH 325 or SPANISH 324
Spring Odd.
SPANISH 351. Major Spanish and Latin American Fiction. 3 Credits.
Study of Spanish short story and/or novels either by period or by theme. Course is repeatable for credit if topics differ.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Spring.

## SPANISH 355. 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: SPANISH 225 or SPANISH 224
Spring Even.
SPANISH 357. Cultura Latina. 3 Credits.
This course is designed to be a query into the nature of Latino/Hispanic Culture in the United States and in the Green Bay area. During the semester we will be discussing in class the changing nature of Latino/Hispanic culture in the United States, as it is reflected in different art media (literature, visual art), cultural theory and mass media.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Spring Even.

## SPANISH 358. Latin America Today. 3 Credits.

Specific humanistic aspects of contemporary Latin American culture, including its history, art, literature, music and value systems.
P: SPANISH 225 OR SPANISH 224. REC: SPANISH 325 or SPANISH 324
Fall Even.
SPANISH 359. The Cultures of the Americas. 3 Credits.
A look at the three major cultural influences in Latin America: Amerindian, African, and European. The history of ethnic relations and intercultural contact in the Americas.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Spring Even.

## SPANISH 360. Spain Today. 3 Credits.

Aspects of contemporary Spain, including its cultures, architecture, music, art and values. Credit not granted for both Spanish 360 and Hum Stud 360 . P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Fall Odd.
SPANISH 361. The Cultures of Spain. 3 Credits.
This course provides a historical overview of the many cultures that have played a role in the development of what is now Spain.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Spring Odd.

## SPANISH 372. Spanish Phonetics. 3 Credits.

Survey of descriptive linguistics with emphasis on the sound system of Spanish.
P: SPANISH 225 or SPANISH 226
Fall Even.
SPANISH 373. Spanish in the US. 3 Credits.
This course will provide an overview of the Spanish language situation in the U.S. context, discuss in detail varieties of Spanish present in the US (i.e., Mexican Spanish, Cuban Spanish, etc.) and address current issues including, but not limited, to language contact, language attitudes, language and identity, and language policy.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324
Spring Odd.

## SPANISH 383. Spanish in the Professions. 3 Credits.

Advanced study of the language and vocabulary needed for use in specific professions, such as (but not limited to) business, social work, education, law enforcement or health care.
P: SPANISH 325 or SPANISH 324 or permission of instructor
Fall Odd.

## SPANISH 438. Major Spanish and Latin American Writer(s). 3 Credits.

Study of an outstanding figure in Spanish and Latin American literatures. Course is repeatable for credit if topics differ.
P: SPANISH 225 or concurrent enrollment
Spring Odd.

## SPANISH 454. Translation and Interpretation. 3 Credits.

This seminar helps students apply their language knowledge and skills by working closely with a Spanish faculty on specific translation and/ or interpretation projects.
P: SPANISH 465 Special Topics: Translation and Interpretation or Instructor permission. REC: SPANISH 345.

## SPANISH 465. Special Topics. 3 Credits.

This variable content course will allow students to analyze seminal aspects pertaining to the language, history and cultures of Spain, Latin America and the Spanish-speaking communities in the United States. Course may be repeated for credit if topics differ.
P: SPANISH 225 or SPANISH 224. REC: SPANISH 325 or SPANISH 324.
SPANISH 478. Honors in the Major. 3 Credits.
Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.
SPANISH 485. Study Abroad:Spain and Latin America. 3-15 Credits.
Students register for this course before departing. Upon return to U.S. they must submit course descriptions and written evaluations from their professors, together with a formal certificate and a letter grade.
P : cons of instr \& prior trip arr \& financial deposit.
Fall and Spring.

## SPANISH 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
SPANISH 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
Fall and Spring.
SPANISH 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa >or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## SPANISH 499. 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.

## Theatre and Dance (THEATRE)

## Courses

## THEATRE 100. Theatre and Dance Gateway. 1 Credit.

Theatre Gateway is the path to success for students new to the Theatre and Dance program. Freshmen, transfers, and newly declared majors and minors will benefit from immediate connections with faculty, staff, and peers who will introduce students to campus performing arts facilities and resources. Students will learn UWGB Theatre's company approach to production, gain insight into major and minor areas of emphasis, and learn to balance the demands of production work and academics. Production-related activities and performance attendance will encourage students to find their place in the program.
P: Declared Theatre Major, Theatre minor, Dance minor, or consent of Instructor
Fall Only.

## THEATRE 110. Introduction to Theatre Arts. 3 Credits.

The literature, elements, and artists in theatre from a process-oriented historical perspective. Includes research prior to performances, attendance at theatre performances, artist interviews and writing of performance responses.
Fall and Spring.

## THEATRE 128. Jazz Dance I. 1 Credit.

Introduces the beginning dance student to the techniques, theories and practice of the jazz genre. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
Fall and Spring.

## THEATRE 131. Acting I. 3 Credits.

Develops a basic organic approach to acting technique through theatre games, vocal and physical exercises, scene work, and improvisation.
P: Theatre Major or Theatre Minor or Dance Minor or consent of instructor
Fall and Spring.
THEATRE 134. Movement for the Actor. 3 Credits.
Explores the essential physical elements of acting and physical approaches to developing and expressing character, enhancing comedic impact, and controlling focus.
P: THEATRE 131 or conc enr or pemission of instructor
Spring.

## THEATRE 137. Ballet I. 1 Credit.

Development of strength, flexibility, coordination, rhythm and correct body placement as these elements pertain to the technical and stylistic demands of ballet upon the human body. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
Fall and Spring.
THEATRE 138. Ballet II. 2 Credits.
Continuing development of strength, flexibility, coordination, rhythm and correct body placement as these elements pertain to the technical and stylistic demands of ballet upon the human body. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
P: Theatre 137.
THEATRE 141. Period Dance Styles. 1 Credit.
An overview of folk, social, and popular dance styles from Ancient Greek to present. Styles will be discussed in their historical context and technique will be emphasized in a studio setting. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
Fall Odd.

## THEATRE 145. Modern Dance I. 1 Credit.

The use of the medium of modern dance, both technically and stylistically, to develop strength, flexibility, coordination and rhythm in the human body, leading to physical self-expression. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
Spring Odd.

## THEATRE 161. Tap Dance I. 1 Credit.

An introductory study of tap dancing, with emphasis on basic technique, steps, and combinations. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
Spring.
THEATRE 190. Introduction to Applied Musical Theatre Voice. 1 Credit.
Study of literature drawn from music theatre repertoire. Some classical repertoire will be utilized for the study of style and the development of proper technique and mature tone. Placement is by audition.
P: Mus App 045 or 105; and declared Musical Theatre major. REC: Music 151, 115 and conc enr in vocal/choral ensemble or theatre/musical theatre production.
Fall and Spring.

## THEATRE 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
THEATRE 200. Script Analysis. 3 Credits.
Students will develop analytical, critical, and creative thinking skills through in-depth study of performance texts. Using various modes and methods of analysis, students will read plays from different eras and cultures to hone their script analysis skills, subsequently enhancing their ability to design, write, direct, and perform for the stage.
Fall Only.
THEATRE 211. World Theatre and Performance. 3 Credits.
An introduction to the performing arts through multiple global perspectives. Key genres and styles emerging from Asia, Africa, Latin America, the Middle East and Europe will be studied in depth by examining performance traditions as they transform in relation to changing historical and social conditions. Fall Only.

THEATRE 219. UWGB Meets NYC: New York Theatre Trip. 1 Credit.
6-day and 5-night theatre trip to New York City. An opportunity to see up to five Broadway and Off-Broadway productions in addition to art museum and theatre-related tours.
P: cons of instr \& prior trip arr \& financial deposit; REC: Thea major.
Spring Even.

## THEATRE 220. Stage Management. 3 Credits.

Procedures and functions of the professional and non-professional stage manager; includes skills such as department organization, scheduling and rehearsal procedures, and communications.
P: conc enr in THEATRE 335, THEATRE 336, THEATRE 338 or THEATRE 339. REC: THEATRE 335 or THEATRE 336
Spring Even.
THEATRE 221. Stagecraft. 4 Credits.
Organization and operation of theatre productions: basic scenery construction, scene shop and theatre safety.
P: conc enr in Theatre 338.
Fall Only.
THEATRE 222. Costume Technology. 4 Credits.
Organization and operation of theatre productions: basic costume construction and costume shop operations.
P: conc enr in Theatre 335, 336, 338 or 339; REC: Theatre 221.
Fall and Spring.
THEATRE 223. Computer Applications for Theatre. 3 Credits.
This course will introduce/develop student proficiency in the use of VectorWorks (CAD) program in scenic and lighting applications as well as other technically-related data management and visualization software.
P: conc enr in Theatre 335, 336, 338 or 339.
Fall Odd.
THEATRE 224. Introduction to Theatre Design. 3 Credits.
An introduction to the fundamental principles of design and their applications in the performing arts. Students will study the vocabulary and communication of design elements through research and hands-on projects.
Fall Even.
THEATRE 228. Jazz Dance II. 2 Credits.
Continued study and execution of the style and techniques of jazz dance. Study of the styles of major choreographers in American musical theater. Course is repeatable for credit; may be taken 4 times for a total of 8 credits.
P: Theatre 128
Spring.
THEATRE 231. Acting II. 3 Credits.
Scene work in realistic dramas; practice in techniques of script analysis and character development. Course is repeatable for credit; may be taken 2
times for a total of 6 credits.
P: Theatre 131.
Spring.

## THEATRE 233. Voice for the Actor I. 3 Credits.

Introduction to principles of vocal training systems used in actor training. Provides students with a working knowledge of their vocal and physical capabilities. Work on breathing, posture, and development of warm-up procedures.
Fall Only.
THEATRE 241. Improvisation for the Theatre. 3 Credits.
An introduction to improvisational concepts and techniques for role-playing, rehearsal and performance. Students will develop creative and collaborative skills by actively participating in theatre games and improvised scenes. Course is repeatable for credit; may be taken 2 times for a total of 6 credits. Fall Even.

## THEATRE 250. Dramaturgy I (Theatre Theory \& Research Methods). 3 Credits.

Students are introduced to the theoretical practices used by practitioners in the interdisciplinary fields of theatre. Additionally, students will be guided through appropriate research practices, all while learning the basics of dramaturgy, the role of the dramaturg, and how it applies to production work. Fall Only.

THEATRE 261. Tap Dance II. 1 Credit.
Continuation of Tap Dance I introducing more complex tap technique. Increase speed and clarity of technique, and complexity of tap combinations and dances. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
$P$ : Theatre 161.
Fall Only.

## THEATRE 290. Intermediate Applied Musical Theatre Voice. 1 Credit.

Study of literature drawn from music theatre repertoire. Some classical repertoire will also be utilized for the study of style and the development of proper technique and mature tone. Placement is by audition. Course is repeatable for credit; may be taken 2 times for a total of 2 credits.
P: THEATRE 190 or MUS APP 106; declared Musical Theatre major. REC: conc enr in choral ensemble/workshop or theatre/musical theatre production

## Fall and Spring.

## THEATRE 298. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
P: fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## THEATRE 299. 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.
THEATRE 302. Playwriting I. 3 Credits.
This course develops basic skills in playwriting through assigned readings, class discussions, and creative-writing assignments. Students will exit the course with completed drafts of one 10-minute play and one One-Act play. In addition to building their skills as a playwright, at the end of the semester students will select one of these projects to be presented in a staged-reading format open to the public.
P: THEATRE 200
Spring.
THEATRE 305. Audition Techniques for the Actor. 3 Credits.
Preparation of classic and contemporary monologues and scenes, professional resumes and photos; dealing with the business aspects of establishing a career as an actor.
P: Theatre 231.
Fall Only.

## THEATRE 309. Theatre History I:Greek to 19th Century. 3 Credits.

This course will focus on the development of Western theatre history and literature from the Ancient Greeks to the late 19th century. Students will make connections between the cultural practices (politics, religion, social life, etc.) of a particular time and place and the theatre that was produced by it. This will not only lead to a fuller understanding of the origins of this work, but should help the student become a more sophisticated and informed artist and/or audience member when considering the dramatic offerings of today, including television, films and web content.
Fall Only.

## THEATRE 310. Theatre History II: Realism to Contemporary. 3 Credits.

This course will focus on the development of Western theatre history and literature from the late 19th century to Contemporary. Students will make connections between the cultural practices (politics, religion, social life, etc.) of a particular time and place and the theatre that was produced by it. This will not only lead to a fuller understanding of the origins of this work, but should help the student become a more sophisticated and informed artist and/or audience member when considering the dramatic offerings of today, including television, films and web content.
REC: THEATRE 309
Spring.

## THEATRE 321. Scene Design. 3 Credits.

Practical techniques of scene design: mechanical drawing, rendering and model building for the theatre. Develops ability to create the visual and mechanical environment to support the presentation of theatre pieces.
P: THEATRE 221, THEATRE 223 and THEATRE 224
Fall Even.
THEATRE 322. Costume Design. 3 Credits.
History of costumes as they relate to the theatre; costume design in relation to the play and the actor; study of the processes of costume design: fabric, color and line, mass and light.
P: Theatre 224; and conc enr in Theatre 335, 336, 338 or 339.
Spring Even.

## THEATRE 323. Stage Lighting. 3 Credits.

Aesthetic practice of design of lighting in theatrical production: composition and psychological effects of stage lighting; contemporary equipment and control systems.
P: conc enr in Theatre 335 or 336 or 338 or 339; REC: Theatre 221 and 222.
Spring Odd.

THEATRE 325. Stage Makeup. 3 Credits.
Principles and applications of stage makeup: materials, light and color, and character analysis.
P: conc enr in Theatre 335, 336, 338 or 339; REC: Theatre 221 and 222.
Fall Even.

## THEATRE 328. Jazz Dance III. 2 Credits.

Advanced study and execution of the style and technique of Jazz Dance. A study of the styles of major choreographers in the American Musical Theatre. Competence in performance is stressed. Course is repeatable for credit; may be taken 5 times for a total of 10 credits.
P: THEATRE 228
Fall Even.
THEATRE 331. Acting III. 3 Credits.
Project based work for the development of specific skills for the actor. Variable Topics include Character Development, Devised Work, Shakespeare, Physical Comedy and Acting for Musical Theatre. Course is repeatable for credit; may be taken 3 times for a total of 9 credits.
P: THEATRE 231; conc enr in THEATRE 335 or THEATRE 336 or THEATRE 338 or THEATRE 339
Spring.
THEATRE 333. Voice for the Actor II. 3 Credits.
A strengthening of structural and tonal work explored in Voice for the Actor I. Introduces stage dialects, character voices, and their healthy production.
$P$ : Theatre 233
Spring Even.

## THEATRE 334. Movement Theory and Analysis. 1 Credit.

Theory and analysis of dance movement for upper division dance students. P: None.
Spring Even.
THEATRE 335. Production Practicum: Crews. 1 Credit.
Crew member/staff participation in a theatre production. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
P: Major or Minor status in Theatre and Dance; Non majors/minors are invited to seek permission to register
Fall and Spring.
THEATRE 336. Production Practicum: Performance. 1 Credit.
Performance in a theatre production. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall and Spring.
THEATRE 338. Production Practicum: Scene Shop. 1 Credit.
Complete production work in scene shop preparation. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall and Spring.
THEATRE 339. Production Practicum: Costume Shop. 1 Credit.
Complete production work in costume shop preparation. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
P: Theatre 222.
Fall and Spring.
THEATRE 340. Dance History. 3 Credits.
Dance History comes from a melting pot of world cultures. Origins and chronological development of dance styles and techniques from pre-historic cultures to present. Historical events, major developments, choreographic works and personalities influencing the development of each dance genre's origin, development, and presence in society today. Genres included but not limited to: folk dance, ballet, modern, jazz/tap, musical theatre, and social dance (from Ballroom to Hip Hop).
Fall Even.

## THEATRE 351. Directing I. 3 Credits.

Theories and techniques of theatrical staging and the relationship of the director to the actors and designers. Study of script analysis and rehearsal technique.
P: THEATRE 131, THEATRE 200; and conc enr in THEATRE 335, THEATRE 336, THEATRE 338, THEATRE 339, THEATRE 356, THEATRE 357, THEATRE 358, or THEATRE 359
Fall Only.
THEATRE 352. Directing II. 3 Credits.
Advanced theories and techniques of theatrical performance through staging and directing exercises.
P: Theatre 351.
Spring Even.
THEATRE 356. Production Practicum: Properties and Scene Painting. 1 Credit.
Production work in properties preparation and scenic painting. Course is repeatable for credit; may be taken 5 times for a total of 5 credits.
Fall and Spring.

## THEATRE 357. Production Practicum: Wardrobe and Makeup Crew. 1 Credit.

Production work on a wardrobe crew. Course is repeatable for credit; may be taken 16 times for a total of 16 credits.
P: Theatre 222 or Theatre 325
Fall and Spring.

## THEATRE 358. Performance Practicum: Musical. 1 Credit.

Performance in a mainstage musical. Course is repeatable for credit; may be taken 8 times for a total of 8 credits.
Fall and Spring.

## THEATRE 359. Production Practicum: Theatre Management. 1 Credit.

Production Related Theatre Management work can be completed working with the Production Director or Managing Director of Theatre and Dance predominantly on Front of House related activities. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
P: Consent of Instructor
Fall and Spring.
THEATRE 361. Tap Dance III. 1 Credit.
Continuation of Tap Dance II. Increase speed, clarity and complexity of technique, combinations and dances. Introduce syncopated and complex rhythms and techniques. Course is repeatable for credit; may be taken 3 times for a total of 3 credits.
P: Theatre 261.
Spring.

## THEATRE 364. Musical Theatre History. 3 Credits.

Cultural conflict, influence and enrichment that arise when differing traditions of the arts come into contact with musical theatre and its development. Spring Even.

## THEATRE 372. American Musical Theatre Dance. 1 Credit.

An overview of dance styles commonly used in Musical Theatre. Styles will be discussed in their historical context and technique will be emphasized in a studio setting. The course builds on skills developed in Tap Dance I and Jazz Dance II. Course is repeatable for credit; may be taken 2 times for a total of 2 credits.
P: THEATRE 161 and THEATRE 228
Fall Even.

## THEATRE 390. Advanced Applied Musical Theatre Voice. 1-2 Credits.

Study of literature from music theatre repertoire. Some classical repertoire will be utilized for the study of style and the development of proper technique and mature tone. Placement by audition. Course is repeatable for credit; may be taken 4 times for a total of 4 credits.
$P$ : Theatre 290 and instructor consent. REC: conc enr in choral/vocal ensemble or theatre/musical theatre production.
Fall and Spring.

## THEATRE 402. Playwriting II (the Long Play). 3 Credits.

An advanced course where students employ skills from Playwriting I to write a full-length play. In the course, attention is given to topics such as: the sustainability of an idea, discovering your voice, marketing \& networking, and the role of the playwright in production. The semester culminates in a playwright's festival where staged-readings of students' work will be on display for public audiences.
P: THEATRE 200 and THEATRE 302
Spring.

## THEATRE 403. Performance Seminar. 3 Credits.

Individual or small group study focused on a specific area or areas of theatre interest of various periods and cultures.
Fall and Spring.

## THEATRE 404. Design Seminar. 1-3 Credits.

Focused study on a specific area or areas of theatrical design and technology such as: rendering, drawing, modeling, projections, special effects, automation, design aesthetics, metalworking, rigging, programming, production management and portfolio presentation. Course is repeatable for credit if topics differ; may be taken 9 times for a total of 9 credits.

## THEATRE 410. Playwrights Workshop. 3 Credits.

Advanced writing students will meet once a week for a three-hour period to read and respond to each other's work in an interactive, high-impact, collaborative atmosphere. Each week, one student will bring in their play to be read and critiqued. Students cycle through turns, each time bringing in a new draft to be read. In doing so, students have the opportunity to strengthen their plays in a structured environment while also being exposed to the rigors of the re-writing process as well as the critique process.
P: THEATRE 302 AND THEATRE 402. REC: THEATRE 200 AND THEATRE 250
Fall and Spring.
THEATRE 415. Contemporary Playwriting Methods. 3 Credits.
Students will read and write plays that exist outside the realm of causal-realism. In addition to readings and discussions, students will write plays that utilize the techniques employed by devised, language-based, and non-traditional forms of playwriting.
P: THEATRE 302 and THEATRE 402. REC: THEATRE 200, THEATRE 250, THEATRE 450
Spring Even.

## THEATRE 421. Scene Painting. 3 Credits.

A Project oriented course incorporating the tools, materials, and techniques necessary to prepare a variety of visual textures and details necessary in theatrical scenic environments. Projects include Marble, Brick, Stone, Granite, Stencils, wood, Foliage, Metallic or Glass surfaces and a large detailed Final Group Project.
Fall Odd.

## THEATRE 422. Costume Crafts. 3 Credits.

Advanced instruction in special topics in costume technology, including but not limited to Millinery, Painting and Dyeing, Corsetry and Padding, Pattern Drafting and Draping, Masks, Armor, and Distressing.
P: Theatre 221 and 222; and conc enr in Theatre 335 or 336 or 338 or 339 .
THEATRE 423. Advanced Stage Lighting. 3 Credits.
Aesthetic practice of lighting in theatrical production, emphasizing programming and analysis. Practical application of the tools used in lighting. P: Theatre 224 and 323; conc enr in Theatre 335, 336, 338 or 339.
Spring Even.

## THEATRE 426. Sound for Theatre. 3 Credits.

A Project oriented course exploring the design process used for creating, selecting and editing music/sound effects for a theatrical production. Aesthetic and technical aspects of designing sound are discussed, demonstrated and realized. The course will culminate with each student creating and presenting a complete sound design for a specific script.
Fall Odd.
THEATRE 433. Vocal Specialization. 1 Credit.
Detailed production specific vocal work for special problems and/or solutions to character development and vocal production issues.
Fall and Spring.
THEATRE 440. Choreography. 3 Credits.
Technical forms and applications for composition of movement. Study of rhythmic patterns and their relationships to movement, creative content, musical interpretation, projection and dynamics. Includes movement and placement for large ensembles.
P: THEATRE 228
Fall Odd.

## THEATRE 450. Dramaturgy II (Theatre Theory in Practice). 3 Credits.

This high-impact course looks at the intersection where theatre theory meets theatre history and theatre practice. Students will use the UW-GB Department of Theatre and Dance season to act as if they were production dramaturgs to create resource packets, outreach material, and lobby displays through research techniques and application of theatre theory. Use of the work is available to production directors if interested.
P: THEATRE 200 and THEATRE 250. REC: THEATRE 309, THEATRE 310, THEATRE 351
Spring Odd.

## THEATRE 478. Honors in the Major. 3 Credits.

Honors in the Major is designed to recognize student excellence within interdisciplinary and disciplinary academic programs.
P: min 3.50 all cses req for major and min gpa 3.75 all UL cses req for major.
Fall and Spring.

## THEATRE 480. Theatre Capstone Project. 1-3 Credits.

Students will complete a faculty approved project with one or more faculty members, at least one of which is from Theatre and Dance, culminating in a performance, staged reading, production related design/technical position, research project, community based activity, internship, travel course, or other approved project. Course is repeatable for credit; may be taken 2 times for a total of 6 credits.
P: Theatre 131, Theatre 221, Theatre 222, Theatre 351
Fall and Spring.

## THEATRE 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
THEATRE 496. Project/Research Assistantship. 1-6 Credits.
The student must prepare a research proposal, and both parties should identify the research arrangement and how the student will complete the work to fulfill the course objectives within the assigned term.
THEATRE 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

## THEATRE 498. Independent Study. 1-4 Credits.

Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early inthe semester to the registrar for entry on the student's transcript.
Fall and Spring.
THEATRE 499. 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 201. Introduction to Water Science. 3 Credits.

Water Science is the interdisciplinary study of water and its interaction with solids, liquids, gases, and organisms in various Earth systems. Water is essential to life, and it plays a critical role in nearly every natural process in Earth's lithosphere, atmosphere, hydrosphere, biosphere, and cryosphere. The world faces significant challenges regarding water quantity, quality, and ecological function that are expected to worsen during the 21 st century. It is rare to find a real-world system in which water does not play a significant role.
Fall and Spring.

## WATER 202. Introduction to Water Science Laboratory. 1 Credit.

Laboratory course to accompany WATER 201 Introduction to Water Science.
WATER 321. Stable Isotopes in the Environment. 1 Credit.
Stable isotope analysis has become a standard tool in modern science. The natural variability in non-radioactive (stable) isotopes corresponds to specific physical and biological processes throughout the global Earth System. This course explores the basics of stable isotope chemistry, with most of the course dedicated to examples of their application across several scientific fields.
P: CHEM 211 or consent of instructor
Spring Odd.

## WATER 410. Agriculture-Water Nexus in Wisconsin. 3 Credits.

This course uses different forms of agriculture in the context of variable geomorphology, climatology, and hydrology to provide students with a greater understanding of the interconnected processes relevant to agriculture and water management (both quantity and quality) across Wisconsin. Students will be introduced to the nexus of agriculture and water broadly through examples and case studies in Wisconsin. The topics covered will leverage ongoing ag-water quality monitoring and research projects and will engage students with agricultural and water resource management practices used to mitigate the impacts of agriculture on water quality and quantity.
Spring.

## WATER 411. Agriculture-Water Nexus Field Experience. 1 Credit.

This course uses different forms of agriculture, variations in physiography, and differences in water resource systems to provide students with a greater understanding of the relationships between agriculture and water. Students and faculty will explore the nexus of agriculture and water through case studies of the water/agriculture connection across Wisconsin. The field course stops will leverage ongoing quality monitoring and research projects and will engage students with agricultural and resource management professionals and producers working to mitigate the impacts of agriculture on water quality/quantity Wisconsin. Course is repeatable for credit; may be taken 3 times for a total of 3 earned credits.
Fall and Spring.
WATER 444. Aqueous Geochemistry. 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, and redox reactions.

## P: GEOSCI 202, CHEM 211 \& CHEM 212

Fall Even.

## WATER 491. Senior Thesis/Research in Water Science. 3 Credits.

A project-based capstone experience where individual students address a specific aspect of water science through the use of scientific and mathematical skills.
P: Senior standing, Math 260 with C or better, instructor consent. REC: Geoscience/Env Sci 432, Water 330, or other appropriate course depending upon focus of thesis project
Fall and Spring.

## WATER 492. Special Topics in Water Science. 1-4 Credits.

Topics not covered by regular courses, such as geochemistry of natural waters, stream ecology, hydrology, hydrogeology, and others. Offerings of different topics can be repeated for credit.

## WATER 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
WATER 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. All internships must be taken P-NC. Course is repeatable for credit.
WATER 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript. Course is repeatable for credit.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.

## Writing Foundations (WF)

## Courses

## WF 93. Fundamentals of Writing. 3 Credits.

A course designed to prepare students for WF 100 and other courses requiring college-level writing. Emphasis on the recursive process of organizing, writing, and revising short essays. Covers basics of research and of integrating source material into the student's essays. Issues related to punctuation, grammar, and syntax handled on an individual basis as needed. Offered on a pass/no credit, non-degree-credit basis only.

## WF 100. First Year Writing. 3 Credits.

Emphasis on writing as a process and on techniques used in academic writing. Also emphasizes essay structure, informative writing and persuasive writing, and locating, evaluating, integrating, and citing source material, including multimodal sources. Reviews conventions of paragraph and sentence structure, punctuation, grammar, and usage as needed.
Fall and Spring.

## WF 105. Research and Rhetoric. 3 Credits.

Further instruction and practice in the rhetorical techniques and types of writing covered in WF 100, but with greater emphasis on rhetorical and critical analysis; may also include elements such as original research and the conventions of writing for specific academic communities.
P: WF 100, or WF 164, or ACT English score of 25 or higher, or SAT Reading score of 32 or higher
Fall and Spring.
WF 164. First Year Writing for International Students. 3 Credits.
An introductory course in academic writing for international students. Focuses on topic development, library research, paragraph and essay organization, the writing process, and language style.
P: International student status or permission of instructor.
Fall Only.
WF 198. First Year Seminar. 3 Credits.
First Year Seminar, topics vary.
Reserved for New Incoming Freshman.
WF 200. Professional Writing for Business Majors. 3 Credits.
Professional Writing for Business Majors is a course focused on study and application of the best practices for writing in today's digital and intercultural workplace.
P: WF 100 OR WF 164, OR ACT English score of 25 or above, OR SAT Reading Test score of 32 or above
Fall and Spring.

## Women's Studies (WOST)

## Courses

## WOST 102. Women's Voices. 3 Credits.

An introductory and interdisciplinary course drawing upon diverse texts and methodologies representative of arts and humanities disciplines. Students will examine multicultural texts ranging from literature, feminist theory and analysis, philosophical reflection, historical accounts, letters, diaries, memoir, cultural critique, visual arts, film, and others to build an understanding of the multiple scholarly approaches to the study of women's lives.
Spring.

## WOST 198. First Year Seminar. 3 Credits.

First Year Seminar, topics vary.
Reserved for New Incoming Freshman.

## wOST 201. Introduction to LGBTQ Studies. 3 Credits.

This course will provide an introduction into Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Studies. Considering LGBTQ Studies as an interdisciplinary field, this course will focus on how the central concepts of sexual orientation and gender identity work within history, politics, literature, technology, art, music, philosophy, education, and psychology. Throughout this course, students will work towards a deep understanding of the intersectional dynamics of privilege and oppression as they relate to LGBTQ individuals and culture by exploring the lived experiences of LGBTQ individuals and their families.

## WOST 203. Gender in Popular Culture. 3 Credits.

In this course, we will examine the ways that women and gender have been portrayed and are currently portrayed through the media, television and movies, popular music, internet, periodicals, popular fiction, newspapers, and other cultural artifacts. With readings ranging from critical theory to popular fiction, we will speculate on the impact of and sources for popular portrayals of women, in particular, and the social construction of gender, race, sexuality, and other social categories. The course will also encourage students to question agency in the creation and consumption of mass culture. Issues of race, class, sexual orientation, gender identity, age, and physical ability will be important as we explore and critically examine the forms and functions of popular culture.
Fall Only.
WOST 241. Introduction to Women's, Gender, and Sexuality Studies. 3 Credits.
Interdisciplinary introduction to the study of gender and sexuality, including identity and expression; the influence of gender on social institutions and structures; and an intersectional examination of women, men, and LGBTQ+ lives in the United States historically and today.
Fall and Spring.

## WOST 247. Latin American and Latina Women. 3 Credits.

This course will examine the lives and literary works of Latin American and Latina women within Latin American society and in the US. Particular attention will be given to the roles assigned to these women by patriarchal cultures and to the stereotypes that have influenced their lives. This course will examine how Latin American and Latina women have resisted race, class and gender oppression. The complex relationships among these factors and ethnicity will be examined through the analysis of a variety of primary texts, films, and scholarly articles.
WOST 250. Introductory Topics in Women's, Gender, and Sexuality Studies. 3 Credits.
Explores a single introductory topic in Women's, Gender, and Sexuality Studies in the instructor's area of expertise. Variable content. Course is repeatable for credit if topics differ. May be taken up to 3 times for a total of 9 credits.

## WOST 299. 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.
WOST 350. Topics in Women's, Gender, and Sexuality Studies. 3 Credits.
Explores a single theme in Women's, Gender, and Sexuality Studies scholarship from an interdisciplinary perspective and includes High Impact
Practices. Variable content. Course is repeatable for credit if topics differ; may be taken 3 times for a total of 9 credits.
P: None. REC: WOST 101 and WOST 201
Fall and Spring.
WOST 437. Feminist Theory. 3 Credits.
This course is an introduction to feminist theories from a variety of disciplinary perspectives; we will examine the development of feminist theories, their practice and contrasting viewpoints.
P: WOST 241
Spring Even.

## wOST 495. Teaching Assistantship. 1-6 Credits.

The student and supervising teacher must prepare a statement that identifies the course with which the assistantship will happen, objectives for the assistantship, and expectations in order to fulfill the course objectives. Students are not eligible to receive credit in both the course they assist the instructor with and the teaching assistantship in the same semester. Typically student has previously taken the course prior to enrollment in the assistantship. Course is repeatable for credit.
Fall and Spring.
wOST 497. Internship. 1-12 Credits.
Supervised practical experience in an organization or activity appropriate to a student's career and educational interests. Internships are supervised by faculty members and require periodic student/faculty meetings. Course is repeatable for credit.
P: jr st.
Fall and Spring.

WOST 498. Independent Study. 1-4 Credits.
Independent study is offered on an individual basis at the student's request and consists of a program of learning activities planned in consultation with a faculty member. A student wishing to study or conduct research in an area not represented in available scheduled courses should develop a preliminary proposal and seek the sponsorship of a faculty member. The student's advisor can direct him or her to instructors with appropriate interests. A written report or equivalent is required for evaluation, and a short title describing the program must be sent early in the semester to the registrar for entry on the student's transcript.
$P$ : fr or so st with cum gpa $>$ or $=2.50$; or jr or sr st with cum gpa $>$ or $=2.00$.
Fall and Spring.
WOST 499. 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.

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[^0]:    UW-Green Bay is committed to offering courses that meet or exceed Department of Education Federal Regulations Vol. 85 No. 171 Part 600 (https://nam10.safelinks.protection.outlook.com/?url=https\%3A\%2F\%2Fwww.govinfo.gov \%2Fcontent\%2Fpkg\%2FFR-2020-09-02\%2Fpdf\%2F2020-18636.pdf\&data=04\%7C01\%7Clagrown\%40uwgb.edu \%7Ce758bf47a52e4b4c503208d88caf0a2b\%7C7fc34f9d1f754f96b5b33cdcaab03aea\%7C0\%7C0\%7C637414030712165209\%7CUnknown \%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQljoiV2luMzliLCJBTil6Ik1haWwiLCJXVCI6Mn0\%3D

[^1]:    Keyboard Requirement:

[^2]:    Dance (choose one course):

