UNIVERSITY OF WISCONSIN-GREEN BAY
UNDERGRADUATE CATALOG
2000-2002

CONTENTS

University of Wisconsin-Green Bay ............. 2
Majors, Minors and Areas of Emphasis .......... 4
The Green Bay Idea of an Educated Person ... 6
  The Green Bay Idea .......................... 6
  UW-Green Bay Guiding Principles ..........  6
The UW-Green Bay Student Experience ...... 7
  Academics .................................... 8
  Daily Life .................................. 12
  Social Life .................................. 13
  Career ..................................... 15
General Education Requirements ............. 16
University Testing Requirements ............. 19
Planning an Academic Program .............. 21
Programs of Study including Majors and Minors 24
  Accounting ................................ 24
  American Indian Studies .................. 25
  Anthropology ................................ 26
  Art .......................................... 26
  Biology .................................... 29
  Business Administration .................. 30
  Chemistry .................................. 32
  Communication and the Arts ............... 33
  Communication Processes .................. 36
  Computer Science ........................... 39
  Earth Science ................................ 40
  Economics .................................. 41
  Education .................................. 42
  Engineering ................................ 46
  English ..................................... 47
  English as a Second Language ............. 48
  Environmental Policy and Planning ........ 48
  Environmental Science ..................... 50
  French ...................................... 52
  Geography .................................. 53
  German ..................................... 54
  History ..................................... 55
  Human Biology ............................... 56
  Human Development ........................ 58
  Humanistic Studies ........................ 60
  Individual Major ............................ 61
  Information Sciences ....................... 62
  Interdisciplinary Studies .................. 63
  International Studies ....................... 64
Mathematics ..................................... 65
Military Science (ROTC) ....................... 66
Music ......................................... 67
Nursing ....................................... 70
Philosophy .................................... 71
Physical Education ............................ 72
Physics ........................................ 73
Political Science ............................. 74
Psychology .................................... 75
Public Administration ........................ 76
Social Change and Development .............. 77
Social Work .................................... 79
Sociology ..................................... 83
Spanish ........................................ 81
Theatre ........................................ 82
Urban and Regional Studies .................. 83
Women’s Studies ................................ 87
Preprofessional Programs of Study .......... 88
  Architecture .................................. 88
  Chiropractic ................................ 88
  Counseling .................................. 89
  Dentistry .................................... 89
  Dietetics .................................... 90
  Engineering .................................. 90
  Law .......................................... 91
  Medicine .................................... 92
  Mortuary Science ............................ 92
  Nursing ..................................... 93
  Occupational Therapy ....................... 93
  Optometry ................................... 94
  Pharmacy .................................... 94
  Physical Therapy ............................. 95
  Physician Assistant ......................... 95
  Theology .................................... 96
  Veterinary Medicine ........................ 96
Course Descriptions ......................... 97
Admission ....................................... 139
Financial Aid .................................. 143
Academic Rules and Regulations .......... 145
Directory ....................................... 150
Index .......................................... 157
Academic Calendar ............................ 160
The University

UW-Green Bay is a public, coeducational university with exceptional new facilities, a dynamic atmosphere and a fresh approach to student learning. Founded in 1965, the University is among the most modern and attractive of the 13 degree-granting institutions in the highly respected, tradition-rich University of Wisconsin System.

UW-Green Bay is heavily invested in state-of-the-art academic facilities and special amenities for students. A high-tech classroom building is scheduled for completion in 2001. Also new is a reconfigured information technology network. The eight-story Cofrin Library is regarded among the finest in the state. The Weidner Center for the Performing Arts is ranked among the nation’s best new performance venues. Other campus features include an expanded University Union and attractive on-campus housing with single rooms, private baths and apartment-style options.

Students find opportunities for involvement and internships in a community famous not only for the Packers’ brand of NFL football, but for its recreational, cultural and economic assets. Green Bay was recently recognized with All-American City status. It is home to excellent museums, parks and theaters and is a gateway to favorite vacation destinations in the scenic Door County peninsula. Green Bay is a center of industry and commerce, with an economy marked by strength in the manufacturing, transportation, health care and insurance sectors. No other American community of its size has as many Forbes 500 firms.

UW-Green Bay has long prided itself on its innovative approach to learning. Its organizing themes include an emphasis on interdisciplinary study and a commitment to problem-solving as a part of every student’s experience. While students elsewhere may major in a single, narrow discipline, all UW-Green Bay students major or minor in the broad-based interdisciplinary topics that are more responsive to the Knowledge Age.

The teaching and learning approaches that have been the centerpiece of the University since its founding have come to be known as “The Green Bay Idea.” The phrase articulates the University’s purpose, which is educating people to approach life by enhancing their ability to draw on multiple perspectives.
An Innovative Institution

In setting its academic course more than three decades ago, the University of Wisconsin-Green Bay attracted national attention in higher education circles. Its innovative reputation survives and thrives today.

UW-Green Bay is one of a half dozen schools profiled in the book The Innovative Campus (Oryx Press, 1990), which revisits groundbreaking higher education institutions of the 1960s and early 1970s. The book lauds the University as a “bold survivor” for keeping many of its most distinctive features central to the institution’s identity.

Today, there is renewed interest in UW-Green Bay’s special mission as interdisciplinary education moves to the mainstream and other institutions embrace multidisciplinary programs and projects. The “problem focus” has been carried forward. UW-Green Bay remains committed to providing its students opportunities for hands-on learning, research, internships and community involvement.

Location

The campus is located on the northeast edge of Green Bay, Wisconsin (metropolitan population of about 250,000) in a suburban area overlooking the bay.

Campus

Features of the UW-Green Bay campus include:

- 700 rolling, wooded acres along the bay of Green Bay with 13 major academic buildings, 22 apartment or residence halls, a nine-hole golf course and arboretum
- Modern, attractive academic facilities including a state-of-the-art classroom building new in 2001
- Concourse system connecting all academic buildings and the Cofrin Library
- The Weidner Center for the Performing Arts, a nationally renowned 2,200-seat performance venue
- New, high-amenity residence halls and student apartments

Faculty

- 175 full time
- 97% of tenure-track professors hold the Ph.D. or highest credential in their field
- Student/faculty ratio of 22/1
- Average section sizes: 29 (lectures) 17 (labs)

Students

- 5,436 total enrollment
- 94% from Wisconsin (71 of 72 counties)
- 4% from 23 other states
- 2% from 32 other nations
- 264 students are ethnic minorities
- Living on campus as new freshmen: 76%
- New freshman mean ACT score: 22.8
- Average high school grade point: 3.27
- Percentage from high school class top quartile: 50%
- 4,160 (79%) of undergraduates are fulltime
- 3,402 undergraduate women
- 1,881 undergraduate men

Top Majors (by enrollment)

Business Administration
Education
Communication
Human Biology
Psychology
Interdisciplinary Studies
Accounting
Human Development
Biology
Computer Science
Environmental Science

Degrees

Bachelor of Arts (B.A.)
Bachelor of Science (B.S.)
Bachelor of Music (B.M.)
Bachelor of Social Work (B.S.W.)
Bachelor of Science Nursing (B.S.N.)
Bachelor of Interdisciplinary Studies

UW-Green Bay also offers a two-year Associate of Arts and Sciences (A.A.S.) degree and Master of Science (M.S.) degrees in Administrative Science, Environmental Science and Policy, and Applied Leadership for Teaching and Learning. The Master of Business Administration and several master’s degrees in education are offered cooperatively with UW campuses at Oshkosh and Milwaukee.

Accreditation

The University holds a full 10-year accreditation from the North Central Association of Colleges and Schools, Commission on Institutions of Higher Education, 30 North La Salle Street, Suite 2400, Chicago, Illinois 60602-2504.

Individual programs with accreditations or approvals include:

- Chemistry, American Chemical Society
- Dietetics component of Human Biology, American Dietetic Association
- Music, National Association of Schools of Music
- Social Work, Council on Social Work Education
- Teacher Education, Wisconsin Department of Public Instruction
- Nursing, National League for Nursing

Administration

University of Wisconsin-Green Bay
Mark L. Perkins, Chancellor
Howard Cohen, Provost and Vice Chancellor for Academic Affairs
Thomas D. Maki, Vice Chancellor for Business and Finance
Dean Redeheaver, Assistant Chancellor for Planning and Budget

University of Wisconsin Board of Regents
Joseph M. Alexander, Madison
Roger E. Axtell, Janesville
Jonathan B. Barry, Mt. Horeb
John T. Benson, Madison
Patrick G. Boyle, Madison
JoAnne Brandes, Sturtevant
Alfred S. De Simone, Kenosha
Guy A. Gotschalk, Wisconsin Rapids
Gregory L. Graczyk, Milwaukee
Ruth Marcene James, Fennimore
Virginia R. MacNeill, Bayside
Toby E. Marchowich, Superior
Frederic E. Mohs, Madison
Jose A. Oliveri, Milwaukee
San W. Orr Jr., Wausau
Gerard A. Randell, Jr., Milwaukee
Jay L. Smith, Middleton

University of Wisconsin System
Katharine C. Lyall, President
MAJORS, MINORS AND AREAS OF EMPHASIS

MAJORS and Minors: An Interdisciplinary Approach

For an idea of how students will learn at the University of Wisconsin-Green Bay, in addition to what they will learn, examine the facing page.

It's an illustration, but not a full portrait, of the fields of study available at UW-Green Bay.

It conveys how each major both stands alone and melds with others in the innovative, “interdisciplinary” structure that sets UW-Green Bay apart.

A traditional approach values narrow specialization in a single field or discipline. The interdisciplinary approach is quite different.

Interdisciplinary majors (the inner ring on the chart) apply knowledge from several fields. There is an expectation that every student will enjoy learning experiences which challenge him or her to integrate ideas from different fields.

It follows, then, that it would be inadequate to try to represent UW-Green Bay's array of programs in regimented rows and columns, as if each discipline were a separate, isolated field of study.

This illustration shows an education that is interactive, three-dimensional. Here, for example, the Social Sciences subjects (blue) adjourn and overlap the Professional Studies majors (magenta). That's a reflection of reality. Majors within each of these two broad domains blend coursework that crosses boundaries and exposes students to other fields and varied perspectives.

Also implied is the relationship between the interdisciplinary programs and the disciplinary units to which they most closely relate. These more traditional programs are depicted as squares—building blocks—behind and alongside of their related interdisciplinary majors.

That doesn't mean that a given interdisciplinary major will incorporate elements from each and every discipline. Human Development (in blue) is an example. Its curriculum is heavy on required courses in the social sciences including psychology, sociology and anthropology, but it also reaches across campus to include studies in biology. A student majoring in Human Development might choose courses in economics or geography as electives, but they are not required.

Yet, for students in another social sciences major, Urban and Regional Studies, economics and geography are central to their programs.

UW-Green Bay believes the interdisciplinary approach is tailor-made for the Knowledge Age, a time when there is more information in most fields today than anyone, even a specialist, can ever know. The ability to access information from across many fields and put it in a useful context is the challenge of both business and society—and the strength of The Green Bay Idea.

Areas of Emphasis: Focused Learning

UW-Green Bay provides opportunities for students to focus in on a particular issue or interest. The University recognizes that students need specific skills to be smart, articulate and engaged citizens and professional practitioners. The academic plan promotes broad-based learning rather than narrow specialization, but it also enables students to pursue intensive coursework in selected areas.

"Areas of Emphasis" are offered by many UW-Green Bay majors and minors. The interdisciplinary major in Communication Processes is an example. Every student explores topics including new media, traditional channels, and fundamentals of interpersonal and mass communication. From there, students can branch out and choose from among six options: electronic media, linguistics and English as a second language, organizational communication, photography, journalism, and public relations.

The listing on this page provides a visual sense of the wide array of options. Areas of emphasis also are listed with their related majors and minors on the chart on page 22.

- Environmental Policy and Planning
  - Public Policy Planning
- Social Change and Development
  - American Social Issues
  - Global Studies
  - Law and Social Change
  - Women's Studies
- Urban and Regional Studies
  - Area Studies
  - Community Economic Development
  - Environmental Design
  - Ethnic Studies
  - General Program
  - Urban and Regional Planning
- Business Administration
  - Finance
  - Marketing
  - Management
- Biology
  - Plant Biology
  - Animal Biology
  - Field Biology and Ecology
  - Cell/Molecular Biology
- Environmental Science
  - Ecology and Biological Resources Management
  - Physical Systems: Technology and Management
- Human Biology
  - General Human Biology
  - Health Science
- Exercise Science
  - Cytotechnology
  - Nutritional Science/Dietetics
- Mathematics
  - Statistics
- Art
  - Studio Art
  - Gallery/Museum Practices
- Communication and the Arts
  - Environmental Design
  - Communication Arts
- Communication Processes
  - Electronic Media
  - Linguistics/ESL
  - Organizational Communication
  - Photography
  - Journalism
  - Public Relations
- English
  - Creative Writing
  - Literature
- Music
  - Performance
  - Applied Music
  - Jazz Studies
  - Music History and Literature
- Theatre
  - Performance
  - Design/Technical Theatre
  - Theatre Studies
  - Musical Theatre
THE GREEN BAY IDEA OF AN EDUCATED PERSON

The Green Bay Idea

The University of Wisconsin-Green Bay believes that colleges and universities play a pivotal role in preparing people to meet challenges in society, in the workplace, and in their personal lives. The University’s purpose is to educate people to approach life by enhancing their ability to draw on multiple perspectives. To accomplish this purpose, the curriculum is interdisciplinary and problem-focused. The programs and people of UW-Green Bay are dedicated to helping students draw on perspectives that are anchored in four touchstones, as presented below. The touchstones can be understood in this way:

- **Breadth and depth of knowledge**
  - The educated person asks what do I know about this challenge?
- **Insight and understanding**
  - The educated person asks what does it mean?
- **Commitment and engagement**
  - The educated person asks what am I going to do?
- **Skills and tools**
  - The educated person asks what skills and tools can I use?

The expression, "The Green Bay Idea," was drawn from UW-Green Bay’s problem-focused interdisciplinary view of education—including the University’s focus on the environment. A centerpiece of UW-Green Bay since its founding, the interdisciplinary view is increasingly important in the rapidly changing world of the Knowledge Age.

The University community has similarly developed and committed itself to the guiding principles listed at left. They articulate the context in which the University carries out its work. They describe the kind of institution UW-Green Bay believes itself to be and provide a marker against which the University’s integrity can be measured.

Foremost on the list are principles that focus on the student experience. UW-Green Bay is dedicated to providing a high-quality student learning experience in the classroom, in the student’s social life and daily environment, and through opportunities to prepare for work and continuing education. The following section of this catalog provides an overview of specific programs, services and resources and describes aspects of the UW-Green Bay experience that students say they value most.

**The Green Bay Idea**

An educated person addresses problems and approaches life through multiple perspectives anchored in:

- **Commitment and engagement**
- **Breadth and depth of knowledge**
- **Skills and tools**
- **Insight and understanding**

**University of Wisconsin**

**GREEN BAY**

**Guiding Principles**

In all its endeavors, the University of Wisconsin-Green Bay is committed to the generation and transmission of knowledge, and in that context:

- Provides an experience that challenges students to
- Think critically and solve problems
- Develop communication and quantitative skills
- Prepare themselves as engaged and contributing citizens
- Practice learning as a lifelong activity

- Establishes and maintains programs and services that:
  - Integrate both interdisciplinary and disciplinary perspectives
  - Strive for excellence
  - Selectively seek national prominence
  - Are flexible and responsive
  - Facilitate campus and community partnerships
  - Serve the educational, cultural, and research needs of the region and the larger society

**Supports a community devoted to**

- Inquiry, creativity, and scholarship
- Excellence
- Innovation
- Involvement, collegiality, cooperation, and caring
- Diversity of thought and experience
- Learning throughout life

**Maintains its financial health by**

- Developing private and public support
- Managing its resources effectively
The Classroom and Beyond: The Green Bay Idea Promotes the Student's Social, Cultural and Personal Development

At the University of Wisconsin-Green Bay, the focus is on academics. The curriculum provides an education that is broad and deep. It does this by centering on select problems of major importance, such as the environment, human development, or societal change, and by bringing multiple perspectives to bear on understanding and solving problems.

The student experience begins with academics, but involves much more. UW-Green Bay's comfortable surroundings and modern living and learning facilities offer a setting for daily life that reinforces the pursuit of knowledge. Social life enhances the educational mission by providing opportunities for participating in and enjoying the arts, student clubs and activities, athletics and recreation. Finally, while a career is not the only goal of a university education, UW-Green Bay is committed to helping each student prepare for career opportunities. Many academic programs incorporate career-related experiences, and faculty and staff are available to guide students toward successful life choices.

This section of the catalog provides a look at key elements that contribute to the UW-Green Bay student experience.
Interdisciplinary Study
The University of Wisconsin-Green Bay offers a distinctive academic program. Through it, students can acquire and integrate the knowledge and skills sought by today’s employers, graduate schools and professional programs. Equally important, the academic program prepares students to understand and respond productively to change in a world where change is constant and pervasive.

Interdisciplinary Education
A distinctive aspect of the academic plan is the interdisciplinary component of each student’s program. Just as they would elsewhere, students at UW-Green Bay major in particular subjects. The difference is the University’s idea that students should also examine how their major subject relates to other subjects. While preparing for a particular career field, a UW-Green Bay student is able to learn how his or her chosen field fits into other contexts. This is important because it leads to qualifications that are now in great demand, such as the ability to understand complex relationships, to examine things from many perspectives, and to work effectively with others from other fields. In a world in which most people can expect to change careers several times, the qualities gained through an interdisciplinary education hold great value.

General Education
All students at UW-Green Bay participate in a general education program which includes studies in the natural sciences, social sciences, humanities, and fine arts. Many general education courses bring together different academic disciplines in one course; others are focused upon a particular dimension or approach. Some courses emphasize studies of various cultures within American society or the cultures of other countries.

Major Areas of Study
Students pursue in-depth preparation through a major. The major may be in a traditional disciplinary program, a professional program, or in one of the interdisciplinary programs that apply knowledge from several disciplines to a particular area of study.

Students who major in a discipline apply the Green Bay Idea in a slightly different way. For them, the added dimension to their learning is provided through completing a minor in an interdisciplinary program. This enables them to understand the specialization of their disciplinary major in the context of a broad range of issues and problems.

Many students select an interdisciplinary major, recognizing that for a variety of career directions, broadly integrated preparation is desirable. Some of these students will also include a minor in a disciplinary program or studies in a professional program.

Focus on Problem Solving
The University’s emphasis upon practical application of knowledge provides students with another significant advantage. By applying knowledge to real experience, students learn to define problems, evaluate them, and find solutions. They gain this experience in many ways — through class projects, independent study, professional internships, and honors projects. They also can enjoy opportunities to work with faculty and community members on research and other special projects. Graduates of UW-Green Bay report that they feel well prepared for their chosen careers and further education.

Commitment to Teaching and Learning
The emphasis upon applications of knowledge requires the support of faculty members strongly committed to excellence in teaching. One demonstration of this is that senior faculty regularly teach introductory courses as well as advanced courses and seminars. Another is that at UW-Green Bay, the learning experience focuses attention on social and cultural development, career preparation, and daily life experiences, as well as intellectual progress.

A Global Perspective
• International Perspective
World travel, international communication, multi-national business, global issues — all are part of today’s world. This makes understanding the variety of world cultures increasingly important. UW-Green Bay is committed to helping students gain awareness of other cultures.

Students from Wisconsin and other states enjoy informal opportunities to interact with students and faculty from other countries. The welcoming, small city atmosphere of Green Bay is attractive to international students and faculty. The University typically enrolls students from more than three dozen nations.

Another, more formal avenue is UW-Green Bay’s curriculum requirement that each student add a three-credit other-culture component to his or her education. This could involve either an on-campus course or credit for international travel.

To further enhance the on-campus experience, the University arranges lectures, films, concerts, performances, and exhibits on different lands and cultures. Through their day-to-day life on campus, UW-Green Bay students can gain a better understanding of international issues and how other cultures view the world.

Another way the University promotes international education is by enabling students to study abroad. Carefully selected foreign study can broaden a student’s horizons and enhance his or her career opportunities. With good planning and the assistance of the International Education Office, students can incorporate foreign study into their university experience without delaying graduation. Students are advised to see the International Studies Certificate described in the academic section of this catalog.

Travel Courses
England, China, Germany, Mexico, Bolivia, Italy, Spain, Ireland, North Africa, Australia, Eastern Europe, and East Asia are just some of the destinations that have been available to students through University-sponsored trips in recent years. Travel courses are typically offered between semesters and enable students to study abroad with a member of the UW-Green Bay faculty. These short trips provide a concentrated opportunity to experience other cultures while earning credit that might be applied to the other-culture component of the general education program.

International Exchanges
Students enrolled at UW-Green Bay may study at institutions abroad with which the University has exchange agreements. Currently these include Kasual University, Germany; University of Aalborg, Denmark; University of Yucatan, Mexico; the Institute of Higher European Studies in the Netherlands; and the University of Leon in Spain. Students may study for a summer, semester or year at these universities with credits applicable toward UW-Green Bay graduation. Students also may take advantage of intensive language programs in Barcelona, Spain, and Antigua, Guatemala.

Other Study-Abroad Options
Students may enroll directly at a foreign university or through a study-abroad sponsoring entity in the United States and, with approval, transfer the credits back to UW-Green Bay. Through UW-Green Bay’s links to various exchange networks, students can study almost anywhere.

• National Student Exchange
The University of Wisconsin-Green Bay is one of only five UW System schools participating in National Student Exchange, a program which enables students to study for a semester or a year at one of more than 100 colleges and universities across the United States. Sites in Guam, Puerto Rico, and the Virgin Islands are available, too. Students from UW-Green Bay have recently been enrolled at colleges and universities in South Carolina, New Mexico, Minnesota, Arizona, Rhode Island, Colorado, California, and Pennsylvania.

The program serves students who want to experience college life in another region of the country, or who wish to take advantage of special courses or programs available elsewhere.

Participants remain within the framework of the UW-Green Bay academic plan and pay fees and tuition at UW-Green Bay rather than higher non-resident costs at the host institution. The Office of International Education has details.
Personalized Ways to Learn

*Credit Alternatives*

Students who choose UW-Green Bay may have taken courses or had experiences that can be applied toward their UW-Green Bay requirements.

**Advanced Placement Program Credit**
The Advanced Placement Program gives students the opportunity to pursue college-level studies while still in secondary school. Students who earn scores of 3 and above on Advanced Placement examinations receive credits toward the total number of credits required for graduation. In many cases, students receive credit for specific UW-Green Bay courses. The Registrar’s Office can supply information.

**Credit by Examination**
Students may be able to qualify for credit by examination if they have studied at non-accredited institutions, pursued special interests independently, or gained experience in the community, in the armed forces, in paid or unpaid employment that has helped to achieve learning equivalent to that which would be gained in a college course.

UW-Green Bay uses College Level Examination Program (CLEP) general exams in the humanities, natural sciences and social sciences and most CLEP subject exams. UW-Green Bay accepts credits earned through these examinations or those from the International Baccalaureate program as a basis for granting credit. Challenge exams are also available for certain courses offered at UW-Green Bay. Only students admitted and enrolled as degree candidates may receive credit-by-exam at UW-Green Bay. Students must be prepared to describe the experience in detail, to articulate in writing the skills or learning acquired, and to submit acceptable documentation or verification.

Students who want to apply for credit for prior learning should do so through Assessment and Testing Services. Applicants receive a handbook with procedures for preparing a prior learning portfolio and pay a fee for the assessment process. The fee is applied toward payment of the final fee for credits.

**Retroactive Credit**
Students who enter the University with advanced preparation in calculus, French, German, or Spanish may receive credit for that preparation by passing an advanced-level UW-Green Bay course with a grade of “C” or better. For information about retroactive credit in these subjects, see the program descriptions for mathematics and the foreign languages, or contact Assessment and Testing Services.

*Other Learning Options*

**Extended Degree Program**
Adults unable to attend traditional on-campus courses may complete their University studies through the Extended Degree Program. The fully accredited bachelor’s degree program leads to the Bachelor of Arts in Interdisciplinary Studies. Extended Degree students fulfill all academic requirements and meet the standards of educational quality characteristic of the University of Wisconsin System. For each course, students attend a monthly, on-campus Saturday class. A number of courses are also offered through alternative learning of the Internet. Each course is usually completed within 16 weeks.

Extended Degree students gain skills which enable them to manage people, information, and products. They acquire transferable skills such as information management, design and planning, research and investigation, communication, human and interpersonal relations, critical thinking and problem solving, management, and administration.

Requirements for the Bachelor of Arts in Interdisciplinary Studies degree are outlined in the academic programs section of this catalog. Additional information about the degree is available from the Extended Degree Office.

**Honor Projects**
An in-depth senior honors project, involving a thesis, special research, or creative work, can serve as the culmination of a student’s educational program.

Projects are as varied as the interests of the students who pursue the senior honors option. Students of the arts can work for honors by giving music recitals, theatrical performances or preparing individual shows in the visual arts. Students in other areas can engage in projects that result in written papers and other documentation, or in oral and electronic media presentations.

Two possibilities for senior honors projects exist — distinction in the major and all-university honors. Some majors offer students the opportunity to earn distinction in the major through a combination of grade point average and completion of a substantial project. Students seeking all-university honors complete an honors project and achieve a specific grade point average in order to qualify for graduation with summa cum laude honors. Qualifications for both are described in the Academic Rules and Regulations section of this catalog.

**Top-notch Learning Facilities**

Modern buildings, special collections, newly upgraded laboratories and computing resources, and natural areas on campus and off all contribute to the quality of the educational experience at UW-Green Bay.

**Biodiversity Center**
The Coifin Arboretum Center for Biodiversity promotes education, research and community services that help conserve native plants and animals of the western Great Lakes region. The Center incorporates resources listed in this section including the arboretum, herbarium and Richter collection, along with the University greenhouse and the archives of the Wisconsin Center for Ornithology.

**Arboretum and Natural Areas**
The 290-acre Coifin Memorial Arboretum encircling the campus is a valuable resource for field trips, class projects, and individual research.

UW-Green Bay offers many opportunities for undergraduate students to work on nature research projects with members of the faculty. The campus arboretum has mature upland forests, several types of restored prairie communities, old fields, ponds and wetlands, a stream, an extensive limestone outcrop of the Niagara Escarpment, and more than a half mile of bay shoreline. Other University natural areas include sites on Lake Michigan, rare wetlands along the lower bay, and an upland tract in the interior of the Door County peninsula. Students have the opportunity to study land forms, vegetation communities and animal habitat at each site.

**Computing Facilities**
All registered students have access to the University’s computing facilities for their classroom work, writing, data analysis and research. Several introductory courses have been specially designed to give students the skills to use the computer facilities effectively throughout their academic programs. Students may also enroll in free, noncredit workshops offered by the University on how to use various computer tools. Each UW-Green Bay student is provided with an account with access to e-mail, the Internet, the campus network and all available campus software.

UW-Green Bay has approximately 400 general access workstations for student use. Workstations are being added to the array each year, with existing equipment updated or replaced to keep facilities current. Assistance is available in the general access labs during the approximately 100 hours a week they are open when classes are in session.
The University has computer laboratories throughout the campus. These include graphic arts, music photography, psychology, geography, ecology and business. Students in these academic areas will find a variety of equipment to meet their instructional needs. The Cofrin Library has computer workstations to provide students access to UW-Green Bay, state and national holdings, and CD-ROM multimedia facilities.

**Data, Video and Voice Network**

UW-Green Bay has a comprehensive data and voice network that uses a state-of-the-art universal wiring system. Over 1,000 personal computer workstations, including both IBM PC compatible and Apple Macintosh units, are attached to the campus network using switched ethernet equipment. The data network enables students, faculty, and staff to use all of the campus computing resources regardless of their location. The network is also accessible by dial-in from off-campus. Data and voice wiring connects all classrooms, laboratories, faculty offices, administrative areas, and on-campus student housing. The campus network is connected to the Internet via high-speed links providing worldwide access for students, faculty, and staff from anywhere on campus.

**Herbarium**

The UW-Green Bay Herbarium houses a collection of more than 25,000 specimens of vascular plants and provides many opportunities for student research (such as collection and cataloging projects) including work on endangered and threatened species. Through computer supported study, students are able to map the distribution of plants and their responses to environmental changes.

**Library**

Centralized among the academic buildings of the campus is the Cofrin Library, which supports the academic program with a collection of more than one million items and computer access to the accumulated knowledge of a worldwide network of libraries. Library holdings include approximately 291,000 books and bound periodicals; subscriptions to 1,400 scholarly journals, magazines, and newspapers; 6,000 electronic full-text journals; and 31,000 rolls of microfilm backfiles. As a depository for the U.S. government and the state of Wisconsin, the library has acquired extensive holdings of government documents. It also has select Canadian and United Nations publications.

Other specialized collections include 57,000 maps, 4,800 sound recordings, 2,100 musical scores, and an instructional materials collection for teachers. The Special Collections Department contains historical records of Northeast Wisconsin, fine print books, rare materials including old maps and manuscripts, and the University archives. Facilities for student use are varied: quiet study areas, individual and group study rooms, a general access lab/library instruction room, and general reading and study areas.

Students can conduct their research at computer workstations which provide access to the Cofrin Library's online catalog and reserve systems, as well as full-text electronic journals and newspapers, CD-ROM databases, census data and other resources. These computers give library access to all the UW System libraries and a database of 43 million titles held by libraries throughout the world. Students can access Internet resources directly or through selected links available on the Cofrin Library website and the library catalog.

Librarians are available to assist students in their research during most of the open access hours. The library catalog and databases are available from remote sites even when the library is not open.

**Richter Natural History Museum**

A gem among campus-held natural history collections in the United States is the UW-Green Bay Richter Natural History Museum. Undergraduate students from a variety of majors and professionals from across the country make use of the unique resource.

The museum is based on a large collection of bird eggs, nests, and study skins gathered by the late Carl H. Richter, who was one of North America's foremost amateur naturalists. It includes more than 10,500 egg sets, some of which are dated as early as 1884. The collection includes a large series of vertebrate specimens, Indian artifacts, mollusks and butterflies, geological specimens, historical documents, and photographs. The museum holdings also preserve Richter's extensive field notes and papers.

The Richter Museum houses more than 90 percent of the North American avian species and subspecies, including endangered species such as whooping crane, snail kite, and Kirkland's warbler, and several extinct species. The egg collection is one of North America's largest. In addition to fluid-preserved specimens, study skins, and skeletons, the museum has a library of related books, journals, and reprints. Holdings represent nearly 100 percent of the locally breeding bird species, 95 percent of the mammals, and 80 percent of the reptiles, amphibians and fish.

Specimen collections continue to grow through contributions from students, faculty and other researchers.

**University Theatre and Weidner Center for the Performing Arts**

Performing arts facilities at UW-Green Bay support many facets of education, both for those pursuing studies in the performing arts and those who come to learn and enjoy as members of the audience.

The University Theatre is a well-equipped 450-seat hall with proscenium stage and computerized lighting facilities located in Theatre Hall. Adjacent spaces are a flexible "black box" theatre, acting studio, dance studio, costume shop, and scene shop. Computer-aided scene, lighting, and costume design is also possible.

The Edward W. Weidner Center for the Performing Arts brings full seasons of visiting artists and touring Broadway productions to the campus and provides a national-caliber setting for student and faculty performers.

The Weidner features state-of-the-art acoustics, the 2,000-seat Cofrin Family Hall, the 200-seat Fort Howard Hall for recitals, the 99-seat Studio Two theatre, and a dance studio.

The $25 million facility is one of the leading performing arts centers in the Midwest, attracting hundreds of thousands of patrons a year. Stage and technical facilities are capable of handling large touring shows such as "Miss Saigon" and "Phantom of the Opera" and major symphony orchestras. A privately funded expansion was completed in 1998, only five years after the building first opened, because overwhelming demand and immediate acceptance by performers, agencies and the ticket-buying public surpassed all expectations.

UW-Green Bay students and faculty members perform at the Weidner throughout the year, and students benefit from work and internship opportunities.
The beauty of the campus and region set the tone for daily life at UW-Green Bay. Students who choose UW-Green Bay enjoy modern living and learning facilities, a dynamic campus atmosphere, and an array of special opportunities for learning through personal experience.

An Exceptional Environment

The Campus

The University campus offers exceptional facilities for learning in a park-like setting overlooking the waters of Green Bay.

The 700-acre campus is located at the foot of the scenic Door Peninsula. The gently rolling site is bordered on one side by a ridge—the geological formation known as the Niagara Escarpment—and on the other by the bay. A tower atop the ridge is a perfect vantage point for viewing a campus framed by the natural areas of the Cochrin Memorial Arboretum. The arboretum encircles the academic core and student housing. Its streams, ponds, prairies, woodlands, and bayshore environment offer recreational opportunities as well as settings for scientific research and instruction. A nine-hole public golf course on campus is maintained in winter for cross-country skiing.

The Community and Region

The campus is just a 10-minute drive from the center of Green Bay, the state’s third largest city and center of one of its fastest growing regions, with a metropolitan population approaching 250,000. The metropolitan area ranks first in the state in growth of jobs. Green Bay is the governmental seat of Brown County.

The top employers in the region include manufacturing (particularly paper products, metal fabrication, and food products), services (especially health care and insurance), transportation, retailing, and tourism. The city boasts well-tended parks and historic neighborhoods, a revitalized riverfront downtown, and a foreign seaport at the mouth of the Fox River on the bay.

Community resources include theater and music organizations, extensive public library and park systems, a modern public museum, the historic Bay Beach amusement park, a wildlife sanctuary, a zoo, a state historic park, a botanical garden, and the cultural and entertainment offerings of the nearby Oneida Tribe of Indians. Not least among Green Bay’s attractions are the University’s NCAA Division I basketball teams—the Phoenix—and the community-owned National Football League franchise, the Green Bay Packers.

The city is a major media center served by two daily newspapers, numerous AM and FM radio stations and six television stations, including affiliates of the Wisconsin Public Television Network and Wisconsin Public Radio, each with studios on campus.

Although many industries are located in the region, much of Northeast Wisconsin is forest and farmland. Green Bay is the gateway to two areas of Wisconsin known for their natural beauty: the Door County peninsula and the “northwoods” country. Door County is characterized by farms, orchards, resorts, small villages with art galleries and boutiques, attractive harbors, and miles of Lake Michigan shoreline. Northern Wisconsin is known for forests and one of the world’s largest concentrations of freshwater lakes.

Major cities are within easy traveling distance. Milwaukee is 114 miles south of Green Bay; Madison is 132 miles southwest; Chicago is 220 miles south; and Minneapolis-St. Paul is 285 miles west. The city is served by interstate highways, several airines, and municipal and intercity bus lines.

Resources for Living

Housing for Students

About 1,600 UW-Green Bay students live on campus. Others commute to classes from apartments or homes in the metropolitan area and neighboring communities.

The Residence Life complex offers students plenty of extras. With no building taller than three stories and most having only a dozen rooms per floor, there is a comfortable, uncrowded feel. Most units are new, and every one has a private bath. Students have the flexibility of three options: apartment, residence hall or “apartment suites” units. Apartment suites offer private bedrooms, large kitchen and living areas, and other amenities. Rooms are computer-ready with high-speed hookups to the Internet and the campus network.

Professional staff administer the Residence Life facilities and each building has a resident assistant—an upper-level student with special training and knowledge about the campus and community. All buildings have laundry facilities. A centrally located community building has lounge, recreation, conference and computer rooms. Outdoor volleyball and basketball courts, picnic tables and grills, and the Phoenix Sports Center are conveniently located nearby.

Those who want to rent apartments or houses in the community can contact the Dean of Students Office for lists of rental properties and other students seeking roommates.

Dining Services

Students living in on-campus apartments have their own kitchens and dining areas. They may prepare their own meals or purchase a fall or partial food plan through University Dining Services. Students living in the residence halls must purchase a food plan. The main dining facility, the Nicolet Room, is located in the University Union, as is the Phoenix Club grill and the mini-grocery known as the Corner Store. The Garden Cafe delicatessen offers breakfast and lunch on the common area level of the Union Library, and lunchrooms with vending machines can be found in several locations across campus.

Health Care

Health Services provides treatment for minor illness and injuries, diagnosis and referral for other conditions, information and counseling on health topics, and information on student health insurance. The staff includes registered nurses and part-time physicians. The nurses’ services are available during daytime hours. Monday through Friday, by appointment or on a walk-in basis to students with validated IDs and health forms on file. Most services are available free. There is a small fee for a physician appointment and for any laboratory tests.

Student Employment

Students who want to work part time while attending UW-Green Bay find help through the Student Employment Office. The office helps place students who are eligible for college work-study. Staff members also post numerous other openings for part-time work that becomes available on campus or in the community.

Student ID and Debit Card

The student photo identification card at UW-Green Bay is known as a Passport. It provides access to a variety of University services and, if a student chooses to use it such, may also serve as a debit card. For example, as an ID, the card enables a student to check out books at the library, use Phoenix Sports Center facilities, and gain access to his or her residence hall. Students who wish to deposit money in their Passport accounts can use their cards to purchase merchandise and services ranging from bookstore materials to laundry services to food service.

Local transportation

UW-Green Bay students who live off campus may use the metropolitan bus system, which provides service to and from campus weekdays.
and on Saturdays. Students who drive to campus purchase semester or full-year parking permits for the use of campus lots.

**Retail Services**

The UW-Green Bay campus is a short drive or bus ride from nearby shopping and the city’s developing downtown entertainment district. On campus, the University’s Phoenix Bookstore is the source for books, classroom supplies, clothing, gifts and other items. The University Union’s mini-grocery store has a selection of foods, health and beauty aids, and housekeeping supplies. Also available on campus are automated teller machines and a branch of the University of Wisconsin Credit Union.

**Public Safety**

UW-Green Bay is considered a safe campus with a very low crime rate in a safe and low-crime community. To help assure the safety and security of people and property on campus, the University provides coverage by its own staff of officers 24 hours a day, seven days a week.

**Services for Learning**

**Academic Support**

Tutoring and workshops are available through the Academic Resource Center to help students improve study, mathematics and reading skills. Sessions on effective note-taking, time management, test preparation and similar subjects are also offered. The UW-Green Bay Writing Center specializes in workshops and individual assistance on writing skills. Both services are accessible by appointment or on a walk-in basis.

**American Intercultural Center**

The center serves African-American, American Indian, Hispanic, and Southeast Asian students. The center exists to foster cultural identity among students of various cultures and to develop an awareness and appreciation of different cultures within the University community at large. Center staff members and students organize events for the entire University and for the community.

**Counseling**

Staff members in Counseling Services are available for confidential, one-to-one discussions on an array of student concerns. The center offers referral to community agencies.

Students learn to work through problems and develop life-long coping skills. Discussion groups and workshops focus on assertiveness, communication skills, eating disorders, stress, and other topics. Personality and interest inventory tests available at the center can help students explore their own strengths and limitations and how these affect relationships and career and academic choices.

**Dean of Students**

The Dean of Students is a contact person for individuals who have questions about University policies and procedures, or who may be experiencing difficulties. The office provides advice, counsel and referral, and coordinates a legal referral service for students.

**Ecumenical Center**

Although not part of the campus proper, the adjacent Ecumenical Center schedules lectures, social events, and growth and support groups for students and community members. Worship services are open to people of all faiths and to those of no religious affiliation. The center is operated by a multi-denominational community board.

**Information Center/Main Desk**

Answers questions about faculty schedules, times and locations of campus events, weather-related cancellations, and a host of other topics can be found at the Information Center/Main Desk, located on the lower level of the University Union.

**International Student Center**

Each year, students from more than 30 countries attend UW-Green Bay to earn degrees and gain firsthand knowledge of the United States. Activities and events at the International Student Center offer American students and those from other countries the chance to share their cultures and ideas.

**Services for Students with Disabilities**

UW-Green Bay can assist students with learning disabilities and has numerous resources to help students who have mobility, vision or hearing disabilities. The University's concourse system provides barrier-free access. Elevators, reserved parking near buildings, nonslip floor tiles, automatic door openers and adaptations for wheelchairs in restrooms, science laboratories, housing and the Phoenix Sports Center are campus features.

Equipment available through the Educational Support Services Office include a visual enlarger, automatic page turner, accessible computer station with attached voice synthesizer, portable desks, slow-speed cassette recorders, scanners/reader computer programs, taped texts and a Telecommunications Device for the Deaf (TDD). The office can also arrange for student assistants to serve as notetakers, typists, readers and scribes.

**Student Support Services (TRIO) programs**

Funded by Title IV of the Higher Education Act of 1965, TRIO is the name for an array of federally funded programs which help students from low-income families generate the motivation and skills to succeed in college. TRIO services of interest to students enrolled at UW-Green Bay include courses, workshops and study groups, and advising and counseling assistance. Eligibility is determined via a form distributed with mailings to newly admitted students; the form is also available in the Educational Support and Multicultural Services Office on campus.

A university experience is centered on classrooms and formal learning, but it is enriched by the many campus offerings which can be part of a student’s social life. Student organizations and activities, special facilities for the arts and entertainment, and athletics and recreation all combine to make UW-Green Bay an attractive destination.

**Arts and Entertainment Facilities**

Galleries

The University provides a variety of gallery settings for presentation of visual arts, including the Lawson Gallery in Theatre Hall and the student-managed 407 Gallery in the Studio Arts Building. They complement the University’s academic program by presenting quality examples of professional artwork produced by state, regional and national artists, and by exhibiting the work of faculty members and top students. The gallery program also offers lectures, artists’ workshops and residencies, and opportunities for arts management internships. Students assist with the Midwest Photography Invitational exhibit, which is prepared biennially for national tour.

**University Union**

The University Union is a hub of student activity. The Union houses dining rooms, a fireplace lounge, student mailroom, student organization offices, game rooms, the Phoenix Club grill, conference facilities, a convenience store and other facilities. The Union is home to events organized by the Office of Student Life. Recent programs include lectures by activists Ralph Nader and international human rights advocate Harry Wu, and student dances, multicultural celebrations, and a volunteer fair promoting community involvement.
Weidner Center for the Performing Arts and University Theatre

The Weidner Center for the Performing Arts brings visiting artists and touring Broadway productions to the campus and provides a professional setting and world-class acoustics for student and faculty performers. Recent acts playing the Weidner include Bill Cosby, Collective Soul, Matchbox 20, Tort Amos, Strong, the Chieftains and many others. Touring Broadway productions have included "Rent," "Phantom of the Opera" and "Les Miserables."

While tickets for touring productions reflect market rates, a variety of seating and pricing options are frequently available. UW-Green Bay students also have access to "rush tickets" — remaining tickets sold at bargain prices just before curtain time for selected performances.

UW-Green Bay's solid reputation in theatre and music has built a following for student and faculty performances, as well. Campus productions in the Weidner Center's main hall, its recital halls, or in the 450-seat University Theatre offer price discounts for UW-Green Bay students.

Organizations and Activities

Clubs, Organizations and Entertainment

Through co-curricular involvement and campus activities, students learn and demonstrate skills, expand their college educational experiences, and just have fun. Students initiate leisure programs through the Good Times Programming Board and other campus organizations. These include films, live entertainment, dances, theme weeks, trips and tournaments.

In a typical year about 95 clubs and other organizations are active on campus. These include club sports, Greek clubs, media, music, athletic, cultural awareness, arts and humanities, religious, student government, political and professional, career-oriented groups. UW-Green Bay has a variety of special interest groups which provide service, political involvement and leisure-time activities and offer the chance to work on environmental interests or social action and change. Students are responsible for The Fourth Estate, the weekly student newspaper. Sheepshead Revue is the student-edited literary publication.

Professional staff of the Student Life Office provide advice and leadership training to individual students and the student organizations that plan activities.

Student performers

Campus music, theatre and dance ensembles offer entertainment as well as opportunities for student performers regardless of their academic majors. Participating students can earn general education credit for their work.

Auditions and enrollment in a credit course are required for most instrumental music groups, including percussion, brass and woodwind ensembles, jazz ensembles, the Symphonic Band, the Wind Ensemble, and the New Music Ensemble. The same is true for choral groups including Concert Choir and University Chorus. Students may perform in the Phoenix Pep Band. They may also receive credit for participation in the Green Bay Symphony Orchestra.

The University Theatre presents several faculty-directed mainstage productions each year, including musicals, drama and comedies. Alternating Theatre, which is a student group, and a formal studio program through the theatre department, give students the chance to write and direct as well as act. In these programs, students can participate in set construction, scene painting, lighting, costume design, publicity, and other tasks. Dance program participants may also take part in theatre productions and perform at athletic events.

Student and faculty music recitals and poetry and prose readings are other events on the calendar of entertainment and cultural programs.

Student Government

The Student Government Association is the student governance body and is composed of all registered students. Leadership is provided by five subgroups — Student Senate, Segregated University Fee Allocation Committee (SUFAC), Residence Hall and Apartment Association (RHAA), Good Times Programming Board, and the University Union Board. Student Senate is the legislative branch, with authority to help make and review policies concerning student life on campus. Members of SUFAC manage the allocation of student fees to student organizations and programs. RHAA members organize special programs for on-campus residents and work with University administrators to develop campus housing policies. Good Times Programming Board plans social, cultural, educational and recreational events. The University Union Board is responsible for policy formulation concerning operations, programming, and other related activities in the University Union. The Board works with Union staff to maintain the University Union as the cultural, social, and recreational center of campus for students.

Intramurals, Recreation and Athletics

Intramurals and Recreation

Depending on the season, students can bicycle, jog or skate along arboretum trails, play golf, sun at a waterfront park, or cross-country ski, all without leaving the UW-Green Bay campus. State parks and other recreation areas are a short drive away in the Green Bay community and nearby Door County resort area.

The Phoenix Sports Center is the campus center of intramural and athletic-related activity. It houses an eight-lane indoor swimming pool, racquetball courts, a free weight and Nautilus weight room, exercise equipment and a multipurpose gymnasium with facilities for basketball, volleyball, and indoor tennis.

Outdoor tennis courts, softball diamonds, and soccer and all-purpose playing fields are located near the Phoenix Sports Center and student housing.

Aerobic classes and an intramural schedule of softball, soccer, volleyball, basketball and flag football highlight a large range of on-campus activities for students.

Phoenix Athletics

UW-Green Bay teams compete in NCAA Division I, bringing major-college competition and national attention to campus. The men's and women's basketball teams have combined for seven NCAA and three NIT tournament appearances in the last decade. UW-Green Bay's swimming and diving teams and members of the tennis team have won conference championships. Nordic ski team members competed in recent years in NCAA and U.S. Ski Association national championships.

Scholarship sports on campus are basketball, cross-country running, cross-country skiing, soccer, swimming and diving, and tennis for men and women; women's softball and volleyball, and men's golf.

UW-Green Bay acquired its singular nickname, the Phoenix, as a result of a student ballet in 1970. There is, according to mythology, only one Phoenix in the world. Upon reaching a great age, it is consumed in flame and reborn from the ashes. The evolution of the University — created with the consolidation and expansion of two-year UW centers that previously served the region — helped inspire the selection of the Phoenix as the University's symbol and mascot.
Advising and career counseling professionals on the University staff help students make smart choices as they prepare for careers or graduate studies. The University responds to students' career interests in other ways, too. Through independent study, internships, undergraduate research, continuing education programs, and the individual major option, students may tailor their learning to their chosen life work.

Advising/Career Counseling

Academic Advising
Professional advisers in the Academic Advising Office assist students in selecting courses to meet their interests and fulfill their general education requirements. Staff members serve as the primary advisers for students who have not yet declared a major. The Office of “MajorTopia” website is a good starting point for new students to explore major options.

Career Planning, Placement
Finding a job after graduation can start as early as a student’s first semester on campus with the aid of the Career Services Office. The center has a staff of professional counselors and features a computerized career information program that links values, interests, and skills to career opportunities. An extensive library at the center includes career outlooks, planning guides, and employer information. Students matched with UW-Green Bay graduates through the Phoenix Network learn firsthand of the day-to-day demands of a particular career and its long-term prospects. Students about to graduate can find help with resume and interviewing preparation, job search strategy, job listings, online searches, on-campus interviews and employer referrals.

Internships and Special Opportunities

Internships
Internships and field studies offer both important practical experience and the opportunity to explore career fields while in college. Through University-arranged internships, students earn academic credit for working and learning on campus or with businesses and organizations in the community. Internships are developed with the help of faculty advisers.

Typical on-campus internships have included work in human resources, news writing, graphic design, museum anthropology, and art gallery management. Off campus, internships have worked in settings of wide diversity: in marketing research, personnel management and accounting with businesses; in social services units of hospitals and mental health centers; with the Red Cross and United Way; in radio and television; with daily newspapers; and in city and county government.

A placement that offers the opportunity for work and observation in a professional setting is required in some academic programs such as social work. Such placement is called a “practicum” or “field experience.”

Independent Study
Independent study allows a student to individualize his or her academic program. It is frequently chosen by those who have specific career or graduate study interests.

Independent study allows students to earn credit for exploring special interests in depth outside of a classroom setting. In order to undertake independent study for credit, a student must identify an appropriate topic and a faculty member willing to oversee it, and prepare a statement of objectives and list of activities.

Continuing Education Opportunities
Noncredit courses, workshops, conferences, and seminars planned by the Office of Outreach and Extension are scheduled throughout the year on campus and in the community. Professional development and continuing education opportunities are available for those in fields including education, governmental affairs, and business. Courses, workshops, and summer camps on many topics are available for children and adults. The Outreach and Extension service also offers counseling to small firms through its Small Business Development Center. Brochures are available describing the range of noncredit programs.

Individual Major
An individual major is a self-designed program for students who find that their educational objectives do not fit into any of the University’s existing majors. An individual major must incorporate several academic areas, in keeping with the University’s interdisciplinary philosophy.

With the help of a faculty member and an individual major adviser, the student formulates a proposal describing the individual major objectives. A final proposal must be approved by an individual major committee.

Information is available from the Office of the Dean of Liberal Arts and Sciences.

Undergraduate Research
Research experience enhances a student’s qualifications for graduate or professional school and future employment. Many UW-Green Bay students gain valuable field experience and laboratory know-how by working with faculty members engaged in research. A student interested in research may also enroll in research-oriented courses or engage in research through independent study or a senior honors project.

Institute for Learning Partnership
Organizations and people who care about public education in Northeast Wisconsin formed the Institute for Learning Partnership to improve student learning at all levels. The collaboration includes UW-Green Bay, dozens of school districts, and businesses, civic leaders, and parents. The Partnership has won national attention for promoting the pursuit of innovative strategies to improve education. It brings cutting-edge research into the classroom for UW-Green Bay education students. Its initiatives also include a new master’s degree in applied leadership for teaching and learning—the first in the state built specifically upon the competencies outlined by the National Board for Professional Teaching Standards—and professional development activities for working teachers to improve their skills and enhance student learning. Undergraduates interested in careers in education are encouraged to inquire about opportunities for involvement.

Majors and Career Options
Many career-related options can be found in the individual descriptions of academic programs that follow in this catalog. Almost all of the narrative descriptions offer insight into how the major, minor or certificate program can be applied to a field of work; some suggest interesting combinations of study and recommend appropriate graduate study or special emphases.
GENERAL EDUCATION REQUIREMENTS

Purpose
The purpose of the general education program is to provide a structured core of studies to all students that strengthens their academic skills, broadens their intellectual horizons, helps them develop and explore new academic interests, allows them to reflect upon value issues, and provides them with a foundation of knowledge for future course work and lifelong learning.

Student Learning Outcomes
Students who complete the general education program are expected to have:

- The ability to communicate effectively through listening, speaking, reading, writing, and the use of computers.
- The ability to think critically.
- The ability to exercise problem-solving skills — such as problem identification and analysis, and solution formulation, implementation, and assessment — using an integrated, interdisciplinary approach.
- A fundamental understanding of the humanities, including:
  — the significance and chronology of major events and movements in Western civilization;
  — knowledge about a range of literature, representative of different literary forms and historical contexts; and
  — the role of the humanities in identifying and clarifying individual and social values in a culture and understanding the implications of decisions made on the basis of those values.
- A fundamental understanding of the natural sciences, including:
  — major concepts, principles, and theories of the biological and physical environment, and
  — the impact of scientific and technological activities and products on individuals, society, and the environment.
- A fundamental understanding of the social sciences, including:
  — major concepts of social, political, geographic, and economic structures, and
  — the impact that social institutions and values have on individuals and groups in a culture.
- A fundamental understanding of one or more of the fine arts, including an understanding of the nature and functions of art and ways of evaluating art.
- A fundamental understanding of contemporary global issues and problems related to multiculturalism and ethnocentrism, through the study of beliefs, values, and ways of life in a country other than the United States.
- A fundamental understanding of the causes and effects of stereotyping and racism, and an appreciation of cultural diversity within the United States.

General Education Advising
Contact the Office of Academic Advising for information or assistance on all matters pertaining to general education requirements, including advising and petitions. Students may review their progress in completing the general education requirements, as well as their requirements for majors and minors, by accessing the Student Online Access Program (SOAP).

General Education
37 - 48 credits
All students must complete the general education requirements before graduation. Most of the requirements are intended to be completed during the freshman and sophomore years. Courses taken to fulfill general education requirements may also be used, simultaneously, to fulfill requirements in the major, minor, and professional program.

Mathematics Competency Requirement: 0-3 credits
All new first-year students are required to complete the Wisconsin Mathematics Placement Test (WMPT). Those students whose scores indicate a low probability for success in courses requiring college-level quantitative skills must complete a three-credit remedial algebra course by the end of their second semester of enrollment at UW-Green Bay. See the University Testing Requirements section of this catalog for further WMPT information.

Writing Requirements
Writing Competency: 0-6 credits
All new first-year students are required to complete the American College Testing (ACT) examination. Those students whose scores on the English portion of the ACT indicate weak writing skills must complete a three-credit remedial writing course by the end of their second semester of enrollment at UW-Green Bay. All students with ACT English scores of 24 or lower must complete 352-100 College Writing (3 credits). Students with ACT English scores of 25 or higher have met the University’s writing competency requirement and are encouraged to enroll in either 352-105 Expository Writing or 352-228 Writing About Education. The SAT IIs now also accepted. See the University Testing Requirements section of this catalog on page 19 for further information.

Writing Emphasis: 4 courses
Writing Emphasis courses provide students with the opportunity to practice and improve their writing skills across the curriculum. 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, including general education requirements and requirements in the major, minor, or professional program.
Breadth Requirement: 31 to 33 credits

Breadth requirements provide students the opportunity to learn the distinctive approaches and some of the important subject matter and significant issues within broad areas of knowledge. Students must complete from 31 to 33 credits in the following areas: the fine arts (three credits), the humanities (nine credits), the social sciences (nine credits), and the natural sciences (10 to 12 credits).

Fine Arts: 3 credits

Three credits are required from either of the following two lists of courses.

FA — History/Appreciation
242-102 History of the Visual Arts: Ancient to Medieval
242-103 History of the Visual Arts: Renaissance to Modern
242-121 Masters and Masterpieces of Music
242-141 Introduction to the Theatre Arts
242-142 Performing Arts Perspective: Experience and Evaluation
242-202 Concepts and Issues of Modern Art
242-221 Popular Music Since 1955
242-261 Foundations I: Aesthetic Experience
242-272 Women in the Arts
242-327 Cross-Cultural Communication: Jazz History
242-328 Cross-Cultural Communication: Musical Theatre History
242-329 Cross-Cultural Communication: World Music
915-309 Theatre History I
915-310 Theatre History II
915-311 Theatre History III
915-340 Dance History

FA — Studio/Performance
168-106 Design Methods
168-107 Two-Dimensional Design
168-210 Introduction to Painting
168-233 Introduction to Ceramics
168-260 Introduction to Art: Metals: Jewelry
670-242 Jazz and Pop Literature, 2 credits
672-xxx *Applied Music Performance (University Chorus, Concert Choir, Symphonic Band, Jazz Combo, Ensembles in Wind, New Music, Jazz, Vocal Jazz, Woodwind, Brass, and Percussion)
915-131 Acting I (concurrent enrollment in Performance Practicum)
915-128 *Jazz Dance I, 1 credit
915-228 *Jazz Dance II, 2 credits
915-137 *Ballet I, 1 credit
915-138 *Ballet II, 2 credits
915-145 *Modern Dance I, 1 credit
915-245 *Modern Dance II, 2 credits
915-161 *Tap Dance I, 1 credit
915-161 *Tap Dance II, 1 credit
915-235 *Production Practicum: 335 Crews, 1 credit
915-235 *Production Practicum: 335 Cast Member, 1 credit
915-238 *Production Practicum: 335 Scene Shop, 1 credit
915-239 *Production Practicum: 339 Costume Shop, 1 credit

Repeatability: For purposes of general education, each course may be repeated for a total of 3 credits.

Humanities: 9 credits

One course is required from each of the following three lists of courses.

I-1 — Introduction to Western Culture I (Origins through the Renaissance)
493-204 Foundations of Western Culture I
493-207 Introduction to the Humanities I

I-2 — Introduction to Western Culture II (Seventeenth Century to Modern Era)
493-102 Foundations of Western Culture II
493-202 Introduction to the Humanities II

II-3 — Role of Humanities in Societal Issues
531-104 Introduction to Literature
531-200 Women in Literature
531-214 Introduction to English Literature I
531-215 Introduction to English Literature II
531-216 Introduction to American Literature I
531-217 Introduction to American Literature II
448-205 History of United States 1600-1850
448-206 History of United States 1865-Present
448-208 History of Modern Science in Western Society

716-101 Introduction to Philosophy
716-102 Problems in Ethics
716-105 Introduction to Social and Political Philosophy
716-208 Science and Human Values
716-211 Philosophy of Art
716-212 Philosophy of Science
716-213 Ancient Philosophy
716-214 Modern Philosophy

Social Sciences: 9 credits

Students are required to choose two courses (six credits) from two different areas from the SS-I list of courses, and one course (three credits) from the SS-II list.

SS-I — Content, Methods and Concepts of Social Science Disciplines
156-100 Varieties of World Culture
298-202 Macro Economic Analysis
298-203 Micro Economic Analysis
416-951-102 World Regions and Concepts
448-100 History of the Modern World
481-120 Introduction to Human Development
778-100 World Politics

778-101 American Government and Politics
820-102 Introduction to Psychology

875-241 Introduction to Women’s Studies
900-202 Introduction to Sociology
915-100 Introduction to Urban Studies

SS-II — Application of Social Science Principles to Social Issues
302-206 Cultural Images in Materials for Children and Adolescents
778-835-202 Introduction to Public Policy
835-215 Introduction to Public Administration
875-204 Freedom and Social Control
875-778-230 Law and the Judicial Process
875-250 Introduction to Global Studies
875-251 Sustainable Development
875-265 Music, Politics and Social Change
875-418-275 The Vietnam War in Historical Perspective
900-203 Minority Groups
951-205 Urban Social Problems

156-304 Family, Kin and Community
156-320 Myth, Ritual and Religion
416-342 Settlement Geography
416-371 Geography of U.S. and Canada
481-336 Gender Across the Lifespan
481-342 Cross-Cultural Human Development
481-344 Dying, Death, and Loss
778-353 Politics of Developing Areas
875-340 Women, Work and Family
875-345 Women, Race and Culture

Natural Sciences: 10-12 credits

Students are required to choose one course from each of the following three lists of courses. Students who do not wish to complete a laboratory science course must complete four courses (12 credits). The fourth course may be selected from either the ES1 or the NS2 list.

HBI — Human Biology Introduction
204-202 Principles of Biology I w/lab (4 cr)
478-102 Introduction to Human Biology

ESI — Environmental Science Introduction
225-108 General Chemistry w/lab (5 cr)
225-211 Principles of Chemistry I w/lab (5 cr)
298-202 Physical Geography w/lab (4 cr)
754-103 Fundamentals of Physics I w/lab (5 cr)
754-201 Principles of Physics I w/lab (5 cr)
298-102 Introduction to Earth Science
298-204 Ocean of Air: Weather and Climate
362-102 Introduction to Environmental Science
362-754-141 Astronomy
754-180 Concept of Physics (754-181 Lab cr.)

NS2 — Natural Sciences Issues
156/478-364 Human Variability
362-142 Exploration of the Universe
362-148 Issues in Biological Conservation
362-160 Emergence of Western Technology
362-260 Energy and Society
362-363 Conservation of Natural Resources
362-468 Ecological Applications
362-469 Conservation Biology
478-205 Biotechnology and Human Values
478-206 Fertility, Reproduction and Family Planning
478-217 Human Disease and Society
478-310 Human Genetics
478-313 Brain Functions in Human Behavior
478-331 Science and Religion: Spirit of Inquiry
694-142 Food and Nutritional Health
694-250 World Food and Population Issues
694-300 Human Nutrition
694-302 Nutrition and Culture
**Other Culture Requirement:**

3 credits

The Other Culture Requirement helps students understand values and ways of life outside the United States so that they are more aware of and sensitive to contemporary global issues and problems. Courses used to fulfill the Other Culture Requirement cannot be used for other parts of the general education requirement.

**OC — Courses Appropriate for Freshmen and Sophomores**

156-100 Varieties of World Culture
416-202 Introduction to Cultural Geography
448-250 Traditional Asian Civilization
694-250 World Food and Population Issues
778-100 World Politics
875-250 Introduction to Global Studies
875-251 Sustainable Development

**OC — Courses Appropriate for Juniors and Seniors**

156-303 Political, Economic and Environmental Anthropology
156-304 Family, Kin and Community
156-320 Myth, Ritual and Religion
216-421 International Marketing
242-323 Language and Society
242-329 Cross-Cultural Communication: World Music
416/951-370 Geography of South America
448-315 Rise and Fall of the Soviet Empire
448-352 History of Modern China
448-354 History of Modern Southeast Asia
448-356 History of Africa
448-358 Aspects of Latin American History
481-342 Cross-Cultural Human Development
493-325 Judaism, Christianity and Islam
493-326 Non-Western Religions
493/908-355 Spanish and Latin American Cinema
493/424-356 German Culture
493/424-357 German Cinema
493-358 Latin America Today
493-376 Cultural Conflict: French Canada
694-302 Nutrition and Culture
778-351 Comparative Political Systems
778-353 Politics of Developing Areas
875-333 Social Change in a Selected Area
875-345 Women, Race and Culture
951-392 Analysis of South Asia

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

1. Completion of a second year (fourth semester) of a foreign language at the college level or any course beyond this level or completion of an upper-level course from a foreign language external to the United States. Courses with variable content (course numbers 498, 497, 478, and 484) may be approved for the Other Culture Requirement by use of special petition.

2. Completion of any approved UW-Green Bay trip outside the United States, or study abroad programs, or student exchange programs outside the United States. Students should contact the Office of International Education for information on opportunities in international education.

3. Substantial living experience outside the United States. The Associate Dean of Liberal Arts and Sciences or a designated member of the General Education Council may grant a waiver of the Other Culture Requirement to students from the United States who file a petition for waiver based on documented prior experience living in a foreign country.

4. Students who are not residents of the United States will satisfy the requirement by residence and course work at UW-Green Bay.

**Ethnic Studies Requirement:**

3 credits

The three-credit Ethnic Studies Requirement helps students understand the causes and results of stereotyping and racism, and develop an appreciation of cultural diversity within the United States. Courses used to complete this requirement cannot be used for other parts of the general education requirement.

**ElS — Courses Appropriate for Freshmen and Sophomores**

242/493-225 American Indian Studies: Arts and Ceremonial Traditions
242/493-226 American Indian Studies: Wisconsin American Indian Nations
302-206 Cultural Images in Materials for Children and Adolescents
448-207 Roots of Black America
448-209 United States Immigration History
493-213 Ethnic Diversity and Human Values
900-203 Minority Groups

**ElS — Courses Appropriate for Juniors and Seniors**

242-301 Communication and the Arts: Oneida Language Project
242-327 Cross-Cultural Communication: Jazz History
351-336 American Ethnic Literature
448-340 Topics in African American History
493-372 American Indian Mythology and Literature
493-374 Wisconsin American Indian Ethnohistory
900-303 Race and Ethnic Relations
951-323 Asian Americans
951-324 Latino Communities in the U.S.
UNIVERSITY TESTING REQUIREMENTS

English and Mathematics Course Placement

In order to determine mathematics and English 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 Verbal portion of the SAT I.

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

— all new freshmen;
— all transfers and re-entry students who have not satisfactorily completed a college-level course in English or mathematics;
— special students wishing to enroll in English or mathematics courses;
— students wishing to be eligible for intercollegiate athletics (only the ACT is needed and the report need not be “current”).

If the ACT or SAT I is needed for course placement in English, the scores must be from a test date not more than five years prior to the first day of classes for the term of impending enrollment. For course placement in mathematics, WMPT scores must be from a test date not more than three years prior to the first day of classes for the term of impending enrollment.

UW-Green Bay also requires official ACT or SAT I scores to comply with UW System Board of Regents policy and provide alternative admissions information on new freshmen.

ACT Registration

An ACT registration packet may be obtained from any high school guidance office, or from the Office of the Registrar or Office of Admissions at UW-Green Bay. The booklet in the registration packet answers questions about the tests and procedures for registration. Be sure to indicate UW-Green Bay (code number 4685) 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) 337-1000.

The Office of the Registrar at UW-Green Bay conducts residual ACT testing for those who miss a registration deadline or regular ACT test date. Residual testing is offered only for students who will register at UW-Green Bay. Residual test scores will not be sent to other institutions by ACT, WMPT or UW-Green Bay.

English Placement

ACT English scores or SAT I Verbal scores are used to determine if a student has satisfied UW-Green Bay’s English competency requirement. The following cut-off scores are used to place students in the most appropriate course based on their current level of English performance.

International students with a TOEFL score of 600 or above may be placed in 352-100 College Writing. International students with a TOEFL of less than 600 will take the English as a Second Language (ESL) placement exam upon their arrival; they will be placed in appropriate English courses based on their ESL exam score. International students from English speaking countries need to complete either the ACT or SAT I.

ACT English score: 16 or lower,
or SAT I Verbal score: 440 or lower

The student must take 912-093 Fundamentals of Writing followed by 352-100 College Writing. Both courses are required and must be successfully completed by the end of the second semester at UW-Green Bay. NOTE: 912-093 is a remedial course and may not count as degree credits. It is graded on a Pass-No Credit (P-NC) basis. Students referred to 912-093 who feel they have been improperly placed may retake the ACT test. Contact the Registrar’s Office on campus.

ACT English score: 17-24,
or SAT I Verbal score: 450-580

The student must take 352-100 College Writing by the end of the second semester at UW-Green Bay. Students referred to 352-100 who feel they have been improperly placed have an additional option: the College Level Examination Program (CLEP) Freshman College Composition exam with essay. Registration for the CLEP exam can be made through the Assessment and Testing Services Office at UW-Green Bay. A passing score on the CLEP Freshman College Composition exam will satisfy the English competency requirements and earn three degree credits.

ACT English score: 25-31,
or SAT I Verbal score: 590-750

This score satisfies UW-Green Bay’s English competency requirement. The student is eligible to enroll in 352-105 Expository Writing or 352-228 Writing About Education. (Some majors and minors require 352-105 or its equivalent.)

ACT English score: 32 or higher,
or SAT I Verbal score: 760 or higher

This score satisfies UW-Green Bay’s English competency requirement. The student is eligible to enroll in 352-105 Expository Writing or 352-228 Writing About Education. (Some majors and minors require 352-105 or its equivalent.) The expository writing requirement is waived for the following programs: accounting, business administration, English, and human biology.
WMPT 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, testing dates and sites is available from the Office of Admissions.

Students must meet with an adviser to learn their WMPT score and course placement. New freshmen will be advised at the time of their Summer Orientation, Advising and Registration (SOAR) 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 (with the exception of out-of-state students) will not be allowed to register for mathematics classes, or for courses with college-level mathematics as a prerequisite, during their first semester.

Students must complete the WMPT before registering for their second semester at UW-Green Bay. Students whose scores indicate a course placement of 912-094 Elementary Algebra, must complete this remedial course by the end of their second semester of enrollment at UW-Green Bay. The 912-094 course may not count as degree credits. It is graded on a Pass-No Credit (P-NC) basis.

Students who have not taken the WMPT and have not satisfactorily completed and transferred in a college-level course in mathematics have the prerogative of enrolling in 912-094 Elementary Algebra. Additional policies for out-of-state and international students are available from the Registrar’s Office.

UW-Green Bay Sophomore Assessment Program

All students who have earned between 54 and 72 credits are required to complete the UW-Green Bay sophomore assessment program. It is made up of three sessions.

The first session is a one-hour orientation that provides an opportunity to learn about the program and how it benefits students.

The second session is an examination that must be completed by all continuing and transfer students who have earned between 54 and 72 credits. The multiple-choice exam assesses students’ knowledge and critical reasoning skills in English, mathematics, social studies, and science. The assessment provides an appraisal of students’ academic strengths and weaknesses independent of grades.

The third session allows students to review the test results so that they can make decisions on courses to improve or enhance their academic skills during their remaining semesters. Students are also guided through several exercises that encourage ongoing self-assessment and describe various means for students to document their strengths and enhance their professional development.

Students are notified by mail when it is time to complete the assessment. There are no exceptions to testing. Assessment at each UW System university is mandatory as a part of a quality assurance program agreed to by the governor of Wisconsin and president of the UW System. It is also required as a part of the accreditation by the North Central Association.

There is no cost for taking the exam. However, if a student fails to attend one of the regularly scheduled testing sessions, a fee is required for a make-up exam. Students who score 257 or higher on the exam will receive one degree credit at no cost if they have participated in all three parts of the assessment. For more information, contact the Assessment and Testing Services Office.

Senior Assessment of the Major Program

All seniors 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.
PLANNING AN ACADEMIC PROGRAM

Degree Residency Requirement
1. A minimum of 30 credits must be earned at UW-Green Bay.
2. The minimum credit residency requirement for a major is 15 credits.
3. The minimum credit residency requirement for a minor is 9 credits.
4. 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, marriage, 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.

A transfer student must complete the general education requirement, but the portion of that requirement which must be completed in residence will be modified according to the number of degree credits and types of courses accepted at the time of transfer. In situations where in-residence requirements are reduced, students must have completed appropriate equivalent courses at their previous college or university. Transfer students should contact the Academic Advising Office as early as possible for help in planning their programs to assure that they fulfill all UW-Green Bay requirements.

Guidelines for Majors and Minors
1. Majors will consist of a minimum of 30 credits with at least 24 credits at the upper level.
2. Minors will consist of a minimum of 18 credits with at least 12 credits at the upper level. The three exceptions are music, art, and theatre.
3. Supporting credits/courses between a major(s) and a minor(s) may not be duplicated unless they exceed the minimum of six unduplicated credits for each major or minor.
4. Within the minima, upper-level credits between a major and minor may not be double counted. The major requires 24 unduplicated upper-level credits. The minor requires 12 unduplicated upper-level credits. Upper-level credits in excess of 24 minimum for a major and 12 for a minor may be duplicated.
5. Within the minima, six upper-level credits may be duplicated between majors.
6. Supporting or upper-level courses/credits may not be duplicated between minors unless those credits are in excess of the minima.
7. Closing entries on the official transcript will include only degrees, date, major(s), minor(s), honors (if any), and teacher certification.
8. Diplomas will carry only the degree (B.A., B.S., etc.) and honors, if any.
9. Overlapping of requirements for majors, minors, and professional programs with the general education requirements is permitted.
10. 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.

Components of a Degree

<table>
<thead>
<tr>
<th>Component I</th>
<th>Component II</th>
<th>Component III</th>
<th>Component IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education and Competency</td>
<td>Supporting Courses vary with major; they are included in the credit total of Component III</td>
<td>30-48 credits</td>
<td>Other Options</td>
</tr>
<tr>
<td>37-48 credits</td>
<td>Preparatory and methods courses appropriate to the major (usually supporting courses).</td>
<td>Students choose one of these:</td>
<td>credits vary, depending on the number of credits earned in Components I, II and III</td>
</tr>
<tr>
<td>Requirements</td>
<td></td>
<td>1. Interdisciplinary major (minimum of 30 credits in the major; 24 of these credits must be at the upper level)</td>
<td>Courses to bring total credits to minimum of 120 degree credits required for graduation such as:</td>
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<tr>
<td>0-6 credits of English competency</td>
<td></td>
<td>OR</td>
<td>1. Minor or additional minor in disciplinary or interdisciplinary program</td>
</tr>
<tr>
<td>0-3 credits of mathematics competency</td>
<td></td>
<td>2. Disciplinary major (minimum of 30 credits in the major; 24 of these credits must be at the upper level) plus</td>
<td>2. Other specific professional program</td>
</tr>
<tr>
<td>31-33 credits of breadth consisting of:</td>
<td></td>
<td>Interdisciplinary minor (minimum of 18 credits; 12 of these credits must be at the upper level)</td>
<td>3. Electives</td>
</tr>
<tr>
<td>3 credits of fine arts</td>
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<td>OR</td>
<td>4. Other possibilities to be designed with an adviser</td>
</tr>
<tr>
<td>9 credits of humanities</td>
<td></td>
<td>3. Professional degree (either Bachelor of Science Nursing, Bachelor of Social Work, or Bachelor of Music)</td>
<td>Minimum Requirement:</td>
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<tr>
<td>9 credits of social sciences</td>
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<td></td>
<td>120 degree credits</td>
</tr>
<tr>
<td>10-12 credits of natural sciences</td>
<td></td>
<td>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.</td>
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<tr>
<td>Majors, Minors and Areas of Emphasis</td>
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<tr>
<td><strong>Interdisciplinary Majors and Minors</strong></td>
<td><strong>Disciplinary Majors and Minors</strong></td>
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<tr>
<td>Students who choose a disciplinary major must also complete an interdisciplinary minor.</td>
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</tbody>
</table>

### Accounting

#### American Indian Studies (minor only)

#### Anthropology (minor only)

#### Art
- Studio Art
- Gallery/Museum Practices

#### Biology
- Plant Biology
- Animal Biology
- Field Biology and Ecology
- Cell/Molecular Biology

#### Business Administration
- Finance
- Marketing
- Management

(Students who choose a Business Administration major must also complete a disciplinary or interdisciplinary minor.)

#### Chemistry

#### Communication and the Arts
- Environmental Design
- Communication Arts

#### Communication Processes
- Electronic Media
- Linguistics/ESL
- Organizational Communication
- Photography
- Journalism
- Public Relations

#### Computer Science

#### Earth Science

#### Economics

#### Education
- Elementary education, major only
- Secondary education, minor only
  (Students pursuing licensure at the secondary level will major in a subject area and minor in secondary education. Contact the Education Office for a list of the University’s approved teaching majors.)

#### English
- Creative Writing
- Literature

#### Environmental Policy and Planning
- Public Policy
- Planning

#### Environmental Science
- Ecological and Biological Resources Management
- Physical Systems: Technology and Management

#### French

#### Geography (minor only)

#### German

#### History

#### Human Biology
- General Human Biology
- Health Science
- Exercise Science
- Cytotechnology
- Nutritional Science/Diabetes

#### Human Development

#### Humanistic Studies

#### Individual Major (major only)

#### Information Sciences

#### Interdisciplinary Studies (major only)
(Extended Degree Program)

#### Mathematics
- Mathematics
- Statistics

#### Music
- Performance
- Applied Music
- Jazz Studies
- Music History and Literature

#### Nursing (B.S.N. for R.N.s)

#### Philosophy

#### Physics (minor only)

#### Political Science

#### Psychology

#### Public Administration

#### Social Change and Development
- American Social Issues
- Global Studies
- Law and Social Change
- Women’s Studies

#### Social Work (B.S.W.)

#### Sociology (minor only)

#### Spanish

#### Theatre
- Performance
- Design/Technical Theatre
- Theatre Studies
- Musical Theatre

#### Urban and Regional Studies
- Area Studies
- Community Economic Development
- Environmental Design
- Ethnic Studies
- General Program
- Urban and Regional Planning

#### Women’s Studies (minor only)
The Major and Minor

The University's program array is displayed on page 22. The key at top notes distinctions between and among the various programs of study. UW-Green Bay offers both disciplinary and interdisciplinary majors. A more thorough explanation of these terms can be found on pages 4 and 5 of this catalog.

The choice of major determines whether a minor is required. For example, the field of environmental policy and planning is an interdisciplinary major. It has two areas of emphasis: public policy and planning. The University's academic program emphasizes the importance of interdisciplinary learning, and requires students to choose either an interdisciplinary major or minor. Since the environmental policy and planning major is interdisciplinary, the student will have fulfilled the requirement of interdisciplinary study. A minor is then optional, rather than required.

The student who has chosen a disciplinary major— for example, chemistry— follows a different path. With a major in a discipline, he or she is required to choose a minor in a program that is interdisciplinary—for example, in human biology.

These are exceptions. These include programs that are offered only as majors or only as minors and professional studies such as business administration and education which have distinctive structures. The student will have the individual program descriptions in the following pages.

Areas of Emphasis

Students can develop significant specializations by choosing areas of emphasis offered by many UW-Green Bay majors and minors. These can lead to specific and productive career fields. Examples of areas of emphasis include gallery/museum practices, ecology and biological resources management, environmental design, nutritional science/dietetics, law and social change, and photography. Students can learn about other areas of emphasis by reading descriptions of related majors and minors in this catalog, and by consulting advisers.

Teacher Preparation

The University offers an interdisciplinary major in education for students seeking elementary-level teaching licensure and an interdisciplinary minor in education for students who desire licensure at the secondary level. Teacher preparation is offered in the following grade levels:

- **Early Childhood/Elementary** (Pre-K-3, Pre-K-6, and Pre-K-8)
- **Elementary** (1-6)
- **Elementary/Middle** (1-8)
- **Secondary or Middle/Secondary** (9-12 or 6-12)

**Art/Music/Foreign Language/ESL** (Pre-K-12)

Preprofessional Programs

The University offers a wide variety of preprofessional programs. Some programs may be completed within one or two years while others require the completion of a four-year baccalaureate program prior to transfer to the professional school. For information, contact the Academic Advising Office. The preprofessional programs are:

- **Architecture**
- **Chiropractics**
- **Counseling**
- **Dentistry**
- **Dietetics**
- **Engineering**
- **Law**
- **Medicine**
- **Mortuary Science**
- **Nursing**
- **Occupational Therapy**
- **Optometry**
- **Pharmacy**
- **Physical Therapy**
- **Physician Assistant**
- **Theology**
- **Veterinary Medicine**

Cooperative Program

**Engineering**
(cooperative program with UW-Milwaukee)

Certificates and Other Programs

**Coaching (Athletics)**

**English as a Second Language**

**International Studies**

**Military Science (ROTC)**

Associate of Arts and Sciences Degree

UW-Green Bay offers a two-year program of study leading to an associate of arts and sciences (AAS) degree. Requirements for the degree include completion of:

- the lower-level general education requirements for the baccalaureate degree (natural science must include the completion of a laboratory science course);
- the math and English proficiency and competency requirements;
- 40 credits of "breadth" courses which include the general education requirements;
- a 12-credit area of emphasis as defined by a faculty adviser;
- 60 degree credits (AAS candidates are not eligible for honors programs);
- 15 credits earned "in residence";
- a minimum grade point average of 2.0.

Students should contact the Academic Advising Office as early as possible for assistance in planning their programs to assure that all degree requirements are fulfilled.

Academic Advice

All new freshmen, transfers and continuing students should consult with the Academic Advising Office for questions concerning their fulfillment of the University's general education requirements. The Academic Advising Office works primarily with students who have fewer than 36 earned collegiate credits and have not declared a major area of study. Students who have declared a major should meet with the faculty adviser(s) in the respective major(s) and minor(s). At 36 credits, all students must declare a major and seek assistance from the faculty adviser(s) assigned to that area of study.
PROGRAMS OF STUDY / Including Majors and Minors

Accounting

Disciplinary Major or Minor

Associate Professors — James Doering, Karl Zehms (chairperson); Assistant Professor — Steven Muzak, Marilyn Sagrillo.

Lecturers — Brent Hussin, Ann Selk.

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. Recent surveys also suggest that while over 30 percent of the accounting graduates pass all four parts of the CPA exam during their first sitting, of those who take it a second time, 75 percent pass all four parts. These figures compare very favorably with the national averages, where the first-time pass rate is approximately 30 percent.

More than 90 percent of UW-Green Bay accounting graduates typically find employment in their chosen careers within six months of graduation. Accounting graduates have secured careers in the fields of public accounting, industry and government, and with the Internal Revenue Service, to name a few.

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.

The accounting curriculum is 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. Accounting students also complete a business minor which provides additional breadth.

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 while working in real business settings.

Entrance and Exit Requirements

Entering freshmen should declare a pre-accounting major when they enroll. To be eligible for admission to the accounting major or minor, a student must have a minimum 2.5 grade point average on a total of at least 36 earned degree credits. Transfer students who have less than 36 degree credits and/or less than a 2.5 grade point average, must earn 15 degree credits at UW-Green Bay and earn a 2.5 or better gpa on those 15 credits.

Eligibility does not guarantee admission. Only the most qualified applicants, based upon grade point average, are admitted from the pool of eligible students. The number of students admitted is determined by availability of faculty, enrollment levels and other considerations.

All students must have a total of 36 earned credits with a minimum 2.5 grade point average to enroll in the "gateway" courses (107-305 and 216-322, 343, and 382).

All students must meet accounting's exit requirement to graduate with an accounting major. Students intending to graduate with this major must have a minimum 2.5 cumulative grade point average.

150 Credit-Hour CPA Exam Requirement

Students should be aware that beginning with the 2001 CPA exam they will need 150 college credit hours to write the exam. The UW-Green Bay accounting program is designed so that students with accounting majors will have several options to earn the 150 credits required for the CPA exam. An accounting advisor assists each student in determining which option best meets his or her interests.

Requirements for the Major

Supporting Courses, 16 credits

216-215 Introduction to Business Statistics, 3 credits
(or 600-260 Introductory Statistics, 4 credits)
216-217 Advanced Business Statistics, 3 credits
216-280 Introduction to Management Information Systems, 3 credits
208-202 Micro Economic Analysis, 3 credits
208-203 Micro Economic Analysis, 3 credits
352-105 Expository Writing, 3 credits
 waived for students with an ACT English score of 32 or higher

Upper-Level Courses, 71 credits

Core courses, 38 credits:
107-300 Intermediate Accounting, 4 credits
107-302 Managerial Accounting I, 3 credits
107-305 Legal Environment of Business, 3 credits
107-306 Business Law II, 4 credits
107-452 Advanced Microcomputer Business Applications, 3 credits
216-322 Introductory Marketing, 3 credits
216-343 Information Systems, 3 credits
216-347 Financial Management and Institutions, 3 credits
216-382 Introductory Management, 3 credits
216-389 Organizational Behavior, 3 credits
(or any 216-36X/46X or any 216-38X/48X course)
216-428 Consumer Behavior, 3 credits
(or any 216-32X/42X course)
216-490 Seminar in Business Problems (capstone), 3 credits

Accounting courses, 33 credits:
107-301 Intermediate Accounting, 4 credits
107-312 Managerial Accounting II, 3 credits
107-313 Advanced Financial Accounting I, 3 credits
107-314 Advanced Financial Accounting II, 3 credits
107-516 Governmental and Nonprofit Accounting, 3 credits
107-410 Introduction to Income Tax Theory and Practice, 3 credits
107-411 Financial Information Systems, 4 credits
107-412 Auditing Standards and Procedures, 4 credits
107-414 Managerial Accounting III, 3 credits
107-415 Advanced Income Tax Theory and Practice, 3 credits
Requirements for the Minor

Supporting Courses, 6 credits
1. 352-105 Expository Writing, 3 credits (waived for students with an ACT English score of 32 or higher)
2. 298-202 Macro Economic Analysis, 3 credits
3. 298-203 Micro Economic Analysis, 3 credits

Upper-Level Courses, 23-24 credits
1. 107-300 Introductory Accounting, 4 credits
2. 107-301 Intermediate Accounting, 4 credits
3. 107-302 Managerial Accounting I, 3 credits

One of these:
1. 107-305 Legal Environment of Business, 3 credits
2. 216-322 Introductory Marketing, 3 credits
3. 216-382 Introductory Management, 3 credits

One of these:
1. 107-312 Managerial Accounting II, 3 credits
2. 107-313 Advanced Financial Accounting I, 3 credits

Two of these:
1. 107-314 Advanced Financial Accounting II, 3 credits
2. 107-316 Governmental and Nonprofit Accounting, 3 credits
3. 107-410 Introduction to Income Tax Theory and Practice, 3 credits
4. 107-411 Financial Information Systems, 4 credits
5. 107-414 Managerial Accounting III, 3 credits
6. 107-415 Advanced Income Tax Theory and Practice, 3 credits

American Indian Studies

Interdisciplinary Minor

Professor — Clifford Abbot.
Associate Professors — Peter Kellogg, Denise Sweet (chairperson).
Assistant Professor — Lisa Poupart.

American Indian studies offers opportunities to study the history and cultures of North American Indians emphasizing the tribes of Wisconsin and the Great Lakes region.

The program offers a minor through several cooperating UW-Green Bay programs. Studies include courses on the arts, music, literature, history, languages, and religious traditions of Wisconsin tribes, plus a set of seminars dealing with special issues in local Indian communities. The program is of interest to Indian students who wish to explore their own history and cultures and to non-Indians who wish to learn about the Native Americans.

The minor can be combined to advantage with a number of disciplines and professional studies, including business, history, the arts, humanities, education, and social services. It can prepare students for a variety of careers as well as fulfill personal interests.

Requirements for the Minor

Supporting Courses, 6 credits
1. 493/242-225 American Indian Studies: Arts and Ceremonial Traditions, 3 credits
2. 493/242-226 American Indian Studies: Wisconsin American Indian Nations, 3 credits

Upper-Level Courses, 12 credits
Minimum of 3 credits and maximum of 6 credits from:
1. 493-391 American Indian Seminar, 3 credits

Repeatable seminar has variable topics such as:
— Contemporary Issues (i.e., mineral rights and resource protection, gaming, sacred sites)
— Tribal Law and Legal Rights
— Environmental Issues
— Social Work, History, Economics
— Repatriation and Reclamation

Electives, choose 6 to 9 credits from:
1. 242-301 Communication and the Arts: Oneida Language Project, 3-5 credits
2. 351-336 American Ethnic Literature: American Indian Writers, 3 credits
3. 493-371 American Indian Art and Artists, 3 credits
4. 493-372 American Indian Mythology and Literature, 3 credits
5. 493-374 Wisconsin American Indian Ethnohistory, 3 credits

One of these may be chosen:
1. 493-497 Internship in American Indian Studies, 1-3 credits
   (requires approval of American Indian Studies adviser)
2. 493-498 Independent Study in American Indian Studies, 1-3 credits
   (requires approval of American Indian Studies adviser)
Anthropology
Disciplinary Minor

Professors — Anthony H. Galt (chairperson), Richard Logan, Lynn Walter. Associate Professor — Joseph Mannino.

Anthropology has the broadest scope of all the social sciences. Anthropology is the holistic study of humans. It includes both the biology of human populations and the study of human culture and society, both in the present and the past.

Anthropologists can study evolution, prehistory, biological variation, genetics, growth and stature, gender, ethnicity, power, politics, social stratification, art, music, dance, myth, ritual, religion, economy, work, tools, warfare, farming, hunting, ecological relationships, law and legal systems, crime, folklore, language, family, the life-span, kinship, and human thought processes.

The aims are to understand social and biological groups as wholes, the institutions found within them as systems, and the meanings people in society give to things, activities, and experiences. Developing this broad kind of understanding is beneficial for almost anything a person might choose to do in the future. Skills and perceptions gained through anthropological study can be applied to many different vocational and professional interests, including international business, government work, human development, Peace Corps, social service and health-related professions, museum and field work, environmental impact analysis, cultural resource management, economic development, social studies teaching, and advanced graduate study.

A major in an interdisciplinary program combined with a minor in anthropology provides a rich educational experience that can lead to one of several interesting intellectual and vocational directions. Combinations with interdisciplinary majors in social change and development, humanistic studies, human biology, or human development are the most obvious choices, but others are also possible.

The adviser can offer suggestions about career-oriented programs to combine with anthropology. The anthropology program maintains a rich website (www.uwgb.edu/anthro) with up-to-date information about courses, faculty, and other things. Students seeking teacher preparation should be sure to consult advisers both in anthropology and education early to make sure they meet all requirements.

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

Requirements for the Minor

Supporting Courses, 9 credits

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<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>156-100</td>
<td>Varieties of World Culture</td>
<td>3 credits</td>
</tr>
<tr>
<td>242-160</td>
<td>Introduction to Language</td>
<td>3 credits</td>
</tr>
<tr>
<td>478-102</td>
<td>Introduction to Human Biology</td>
<td>3 credits</td>
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Upper-Level Courses, 12 credits

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<tr>
<td>156-303</td>
<td>Political, Economic and Environmental Anthropology</td>
<td>3 credits</td>
</tr>
<tr>
<td>156-304</td>
<td>Family, Kin, and Community</td>
<td>3 credits</td>
</tr>
<tr>
<td>156-330</td>
<td>Myth, Ritual, and Religion</td>
<td>3 credits</td>
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One of these:

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>156-342</td>
<td>Human Evolution</td>
<td>3 credits</td>
</tr>
<tr>
<td>156-364</td>
<td>Human Variability</td>
<td>3 credits</td>
</tr>
</tbody>
</table>

Art
Disciplinary Major or Minor

Professors — David Danzeckler, Jerry Dell, Carol Emmens, Karan Winzenz.

Associate Professors — Ronald Baha, Jeff Benzow, Curt Heuer (chairperson), Christine Style.

Assistant Professors — Elizabeth Ament, Jan Bradfield, Jennifer Mokren.

Lecturers — Kristy Deetz, Instructional Staff — Robert Ratajczak, Kristina Rothe.

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 disciplinary major or minor in art includes courses in studio art and art history, other cultures, and contemporary art.

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, other 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. Refer to communication and the arts listings for related courses taught by art faculty.

The art discipline has three areas of emphasis. These are:

- Studio art, which can lead to professional practice as an artist or to related visual communication careers.
- Gallery/museum practices, which offers preparation for a wide range of careers in museums, art centers, galleries, collections, and other art organizations.
- Art education, which leads to credentials for teaching licensure from the Wisconsin Department of Public Instruction.

A fourth career direction is open to art majors who select a minor in Communication and the Arts with an emphasis in graphic communication. Possible careers include graphic design, art direction, advertising, and other professional work in graphic communication.

All four 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.

Art majors typically select interdisciplinary minors in communication and the arts with emphases in graphic communication or art and society. Minors in human development, business administration, and humanistic studies may be appropriate depending upon students’ individual goals.

Students should seek faculty advising no later than the sophomore year in order to complete an art major in a timely manner.

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 integrated communications, communication and the 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).

Art facilities include well-equipped studios in painting, drawing, sculpture, ceramics, photography, computer graphics, art metals/jewelry, fibers/textiles, papermaking and printmaking. All art students who complete 168-101 (Tools, Safety, and Materials) have access to a professional wood and metal-working laboratory managed by a full-time staff person who provides training and technical assistance.

The gallery/museum practices emphasis provides opportunities to work in the Lawton Gallery and the 407 Gallery under the direction of the curator of art. Internships in regional art organizations and museums are also possible in the gallery/museum practices emphasis.

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

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

**Requirements for the Major**

*(vary with the area of emphasis)*

**Areas of Emphasis**

* Studio Art

Supporting Courses, 31 credits

Studio Art and Gallery/Museum Practices have the same supporting course requirements.

**Art history, 9 credits:**

242-102 History of the Visual Arts: Ancient to Medieval, 3 credits
242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
242-202 Concepts and Issues of Modern Art, 3 credits

**Design, 10 credits:**

168-101 Tools, Safety, and Materials, 1 credit
168-105 Drawing, 3 credits
168-106 Design Methods, 3 credits
168-107 Two-Dimensional Design, 3 credits

**Two-dimensional studios, choose 6 credits:**

168-210 Introduction to Painting, 3 credits
168-243 Introduction to Photography, 3 credits
168-270 Introduction to Printmaking, 3 credits

**Three-dimensional studios, choose 6 credits:**

168-220 Introduction to Sculpture, 3 credits
168-230 Introduction to Ceramics, 3 credits
168-250 Introduction to Textiles, 3 credits
168-260 Introduction to Art Metals: Jewelry, 3 credits

**Upper-Level Courses, 24 credits**

**Art history, 6 credits:**

One of these:

242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits

Required:

168-490 Contemporary Art: 1945-Present, 3 credits

**Studio courses, 18 credits:**

The design core listed above is required for all upper-level studio courses. Of the total 18 credit studio requirement, a minimum of 9 credits should be selected from one studio area, in consultation with an art faculty adviser.

Required:

168-302 Intermediate Drawing, 3 credits

Fifteen additional credits in 300-400 level studio work must be selected with a faculty adviser. Following are sample studio programs:

**Painting:**

168-311 Intermediate Painting, 3 credits
168-334 Photography II, 3 credits
168-402 Advanced Drawing, 3 credits
168-410 Advanced Painting, 3 credits

**Drawing:**

168-311 Intermediate Painting, 3 credits
168-373 Intermediate Intaglio, 3 credits
168-377 Intermediate Lithography, 3 credits
168-402 Advanced Drawing, 3 credits

**Sculpture:**

168-321 Intermediate Sculpture, 3 credits
168-331 Intermediate Ceramics, 3 credits
168-364 Intermediate Art Metals: Jewelry, 3 credits
168-421 Advanced Sculpture, 3 credits

**Ceramics:**

168-321 Intermediate Sculpture, 3 credits
168-331 Intermediate Ceramics, 3 credits
168-355 Textiles: Papermaking, 3 credits
168-453 Advanced Ceramics, 3 credits

**Photography:**

168-311 Intermediate Painting, 3 credits
168-343 Photography II, 3 credits
168-344 Photography III, 3 credits
168-375 Screen Printing, 3 credits
168-443 Advanced Problems in Photography, 3 credits
168-493 Photography Portfolio, 3 credits

**Art metals:**

168-321 Intermediate Sculpture, 3 credits
168-343 Photography II, 3 credits
168-364 Intermediate Art Metals: Jewelry, 3 credits
168-463 Advanced Art Metals: Jewelry, 3 credits

**Fibers/Textiles:**

168-311 Intermediate Painting, 3 credits
168-321 Intermediate Sculpture, 3 credits
168-355 Textiles: Papermaking, 3 credits
168-453 Advanced Textiles, 3 credits

**Printmaking:**

168-311 Intermediate Painting, 3 credits

Choose one or two printmaking processes:

168-371 Intermediate Relief Printing, 3 credits
168-373 Intermediate Intaglio, 3 credits
168-375 Screen Printing, 3 credits
168-377 Intermediate Lithography, 3 credits
168-470 Advanced Printmaking, 3 credits

*Advanced studies may be taken 3 times for a total of 9 credits.

* Gallery/Museum Practices

Supporting Courses, 31 credits

See the Studio Art emphasis. Gallery/Museum Practices and Studio Art have the same supporting course requirements.

**Upper-Level Courses, 31 credits**

**Art history, 6 credits:**

One of these:

242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits

Required:

168-490 Contemporary Art: 1945-Present, 3 credits

**Studio courses, 12 credits:**

168-302 Intermediate Drawing, 3 credits

Select 9 additional studio credits that include both two-dimensional and three-dimensional areas.
Gallery/museum practices core, 12 credits:
168-395 Exhibition Development and Design, 3 credits
168-396 Gallery/Museum Practices, Principles and Policy, 3 credits
168-495 Advanced Gallery/Museum Practices, 3 credits (repeatable up to 6 credits)
168-497 Internship in Gallery/Museum Practices, 3-12 credits (not required)

Related Courses (recommended)
Communication skills:
246-133 Fundamentals of Public Address, 3 credits
352-105 Expository Writing, 3 credits

Anthropology:
156-100 Varieties of World Culture, 3 credits
156-320 Myth, Ritual and Religion, 3 credits
242/493 225 American Indian Studies: Arts and Ceremonial Traditions, 3 credits

Art history:
168-498 Independent Study, 1-4 credits
242-370 Modern American Culture, 3 credits

Students should consult with faculty in gallery/museum practices before selecting recommended courses. The recommended courses will be selected to meet specific career goals.

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, or the Office of Academic Advising, or refer to the Education program description in this catalog. For advising information, see the art education adviser.

Supporting Courses, 37 credits

Art history, 6 credits:
242-102 History of the Visual Arts: Ancient to Medieval, 3 credits
242-103 History of the Visual Arts: Renaissance to Modern, 3 credits

Design, 10 credits:
168-101 Tools, Safety, and Materials, 1 credit
168-105 Drawing, 3 credits
168-106 Design Methods, 3 credits
168-107 Two-Dimensional Design, 3 credits

Studio, 21 credits:
Two-Dimensional Studios:
168-210 Introduction to Painting, 3 credits
168-243 Introduction to Photography, 3 credits
168-270 Introduction to Printmaking, 3 credits

Three-Dimensional Studios:
168-220 Introduction to Sculpture, 3 credits
168-230 Introduction to Ceramics, 3 credits
168-250 Introduction to Textiles, 3 credits
168-260 Introduction to Art Metals: Jewelry, 3 credits

Upper-Level Courses, 24 credits
Art history, 6 credits:
One of these:
242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits
Required:
168-490 Contemporary Art: 1945-Present, 3 credits

Studio art, 18 credits:
168-302 Intermediate Drawing, 3 credits

Fifteen elective credits should include five studio courses from the 300-400 level in drawing, painting, printmaking, photography, art metals, textiles, sculpture, or ceramics for which appropriate prerequisites have been completed.

Requirements for the Minor
(vary with the area of emphasis)

Areas of Emphasis

[Two-Dimensional Emphasis]

Supporting Courses, 16 credits
Background, 3 credits:
242-202 Concepts and Issues of Modern Art, 3 credits

Design core, 7 credits:
168-101 Tools, Safety, and Materials, 1 credit
168-105 Drawing, 3 credits
168-107 Two-Dimensional Design, 3 credits

Introductory studios, choose 6 credits:
168-210 Introduction to Painting, 3 credits
168-243 Introduction to Photography, 3 credits
168-270 Introduction to Printmaking, 3 credits

Upper-Level Courses, 6 credits
Select two courses on the 300-400 level in painting, drawing, photography, or printmaking, for which appropriate prerequisites have been completed.

[Three-Dimensional Emphasis]

Supporting Courses, 16 credits
Background, 3 credits:
242-202 Concepts and Issues of Modern Art, 3 credits

Design core, 7 credits:
168-101 Tools, Safety, and Materials, 1 credit
168-105 Drawing, 3 credits
168-106 Design Methods, 3 credits

Introductory studios, choose 6 credits:
168-210 Introduction to Sculpture, 3 credits
168-230 Introduction to Ceramics, 3 credits
168-250 Introduction to Textiles, 3 credits
168-260 Introduction to Art Metals: Jewelry, 3 credits

Upper-Level Courses, 6 credits
Select two courses on the 300-400 level in sculpture, ceramics, textiles, or art metals, for which appropriate prerequisites have been completed.

Art History

Supporting Courses, 15 credits
168-105 Drawing, 3 credits
168-107 Two-Dimensional Design, 3 credits
242-102 History of the Visual Arts: Ancient to Medieval, 3 credits
242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
242-202 Concepts and Issues of Modern Art, 3 credits

Upper-Level Courses, 6 credits
One of these:
242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits
Required:
168-490 Contemporary Art: 1945-Present, 3 credits
Biology

Disciplinary Major or Minor

Professors — Robert W. Howe, Michael D. Morgan (chairperson),
V.M.G. Nair, Richard J. Stevens.
Associate Professors — Warren V. Johnson, James O. Marker, Jeffrey C.
Nekota, Donna L. Ritch.
Assistant Professors — Angela Bauer-Dautoin, Michael L. Draney,
Brian Merkel, Tara T. Reed-Anderson.

Biology provides a student with many insights into various types of living
systems from the subcellular level to the ecosystem level. The biology
major prepares students for careers in cell and molecular biology,
biochemistry, plant and animal biology, genetics, physiology, ecology,
and field biology. Students can develop biology programs to prepare for
medical, dental, veterinary, agriculture, or other professional schools, or
for graduate study. The major also establishes a foundation for interdisciplinary
careers in biological resources management, human biology, nutritional
sciences, and science communications (technical writing, journalism, and nature interpretation).

UW-Green Bay biology graduates are employed in industry (pharmaceuticals,
paper making, food processing, hospitals and clinics, agriculture,
and others); government agencies (Environmental Protection Agency,
Food and Drug Administration, National Park Service, Fish and Wildlife
Service, Forest Service, Bureau of Land Management, Department of
Agriculture, Wisconsin Department of Natural Resources, and others);
with environmental consulting firms; and in education. About 40 percent
of biology graduates pursue advanced degrees in graduate and professional
schools.

Anyone who is interested in discovering how organisms function, and
exploring how all types of life forms exist in the world should consider
the biology program. Those who have a general interest in working with
the principles of mathematics, chemistry, physics, and of course biology,
should consider majoring (or having a minor) in biology.

Biology majors must combine their studies with an interdisciplinary minor.
Human biology is the minor commonly chosen by biology majors
with interests in health sciences or exercise science. Students interested
in areas such as ecology, preservation of biodiversity, and management
of biological resources such as wildlife, forests, and fisheries, typically
take a minor in environmental science. Other interdisciplinary areas that
may be useful, depending upon a student’s career goals, include business
administration and environmental policy and planning.

Students who prefer a biology minor (rather than a major) coupled with
an interdisciplinary minor will find the majors in environmental science
and human biology especially attractive. Students in education who desire
to become science teachers have found the biology minor important.

A particular advantage of the UW-Green Bay biology program is the opportunity
for undergraduate students to gain practical experience. Many students work with faculty on independent research projects. There is an
active internship program with private, state and national agencies, and
with industry. Such experiences are beneficial when entering the job
market or seeking admission to graduate and professional schools.

The program has well-equipped laboratories for teaching and student/
faculty research. Other teaching and research facilities include the Center
for Biodiversity, the 290-acre Cofrin Memorial Arboretum on the campus,
off-campus natural areas managed by the University, the Richter
Natural History Museum, small animal laboratory, herbarium, and
greenhouse. Students also have ready access to supercomputers.

Students get to practice their knowledge in both field and laboratory set-
ing, contributing to a broader and stronger educational experience. Stu-
dents master the basic skills needed for success in the biology field.
These skills include statistical analysis, various laboratory methods and
techniques, and taxonomic (identification) skills. Many occupations to-
day require a college-educated individual who can write and speak well.
Solve problems, learn new information quickly and work well with others
on a team. Students in the biology program will develop these skills with
elegance.

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

Requirements for the Major

Supporting Courses, 28 credits

201-202 Principles of Biology I, 4 credits
204-205 Principles of Biology II, 4 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits
600-260 Introductory Statistics, 4 credits

Mathematics, choose one of these:

266-256 Software Design I, 4 credits
600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
600-201 Calculus for the Management and Social Sciences, 3 credits
600-202 Calculus and Analytic Geometry I, 4 credits

Writing, choose one of these:

246-390 Scientific and Technical Communication, 3 credits
352-105 Expository Writing, 3 credits

Biology majors are strongly advised to consider:

225-300 Bio-O rganic Chemistry, 3 credits
225-301 Bio-O rganic Chemistry Laboratory, 1 credit
OR
225-302 Organic Chemistry I, 3 credits
225-303 Organic Chemistry II, 3 credits
223-304 Organic Chemistry Laboratory I, 1 credit
225-305 Organic Chemistry Laboratory II, 1 credit

AND:
754-103 Fundamentals of Physics I, 5 credits
754-104 Fundamentals of Physics II, 5 credits
OR
754-201 Principles of Physics I, 5 credits
754-202 Principles of Physics II, 5 credits

Upper-Level Courses, 24 credits

Core Courses, 14-15 credits

204-303 Genetics, 3 credits
362-301 Principles of Ecology, 4 credits
One of these:
204-302 Principles of Microbiology, 4 credits
204-307 Cell Biology, 4 credits
One of these:
204-311 Plant Physiology, 4 credits
204-346 Comparative Physiology, 3 credits

Areas of Emphasis, 9-10 credits

Biology majors must complete 9 or 10 credits in one of the following areas
to bring their total credits in upper-level biology courses
to a minimum of 24.

Plant Biology

Choose 9-10 credits from:

204-304 Genetics Laboratory, 1 credit
204-310 Plant Taxonomy, 3 credits
204-311 Plant Physiology, 4 credits
204-312 Mycology, 3 credits
204-317 Structure of Seed Plants, 3 credits
204-320 Field Botany, 3 credits
362-363 Plants and Forest Pathology, 3 credits
Animal Biology
Choose 9-10 credits from:
204-304 Genetics Laboratory, 1 credit
204-340 Comparative Anatomy of Vertebrates, 4 credits
204-342 Ornithology, 3 credits
204-343 Mammalogy, 3 credits
204-345 Animal Behavior, 3 credits
204-346 Comparative Physiology, 3 credits
204-353 Invertebrate Biology, 4 credits
204-355 Entomology, 3 credits
204-410 Developmental Biology, 4 credits
478-306 Microscopic Anatomy, 2 credits
478-318 Mammalian Reproduction, 3 credits
478-402 Human Physiology, 3 credits
478-413 Neurophysiology, 3 credits
478-444 Endocrinology, 3 credits

Field Biology and Ecology
Choose 9-10 credits from:
204-310 Plant Taxonomy, 3 credits
204-320 Field Botany, 3 credits
204-342 Ornithology, 3 credits
204-343 Mammalogy, 3 credits
204-353 Invertebrate Biology, 4 credits
204-355 Entomology, 3 credits
362-363 Plants and Forest Pathology, 3 credits
362-405 Aquatic Ecology, 3 credits
362-467 Ecological Methods and Analysis, 4 credits
362-468 Ecological Applications, 4 credits
362-469 Conservation Biology, 4 credits

Cell/Molecular Biology
Choose 9-10 credits from:
204-302 Principles of Microbiology, 4 credits
204-307 Cell Biology, 4 credits
204-312 Mycology, 3 credits
204-402 Advanced Microbiology, 3 credits
204-407 Molecular Biology, 3 credits
204-408 Molecular Biology Laboratory, 1 credit
225-330 Biochemistry, 3 credits
225-331 Biochemistry Laboratory, 1 credit
478-306 Microscopic Anatomy, 2 credits
478-422 Immunology, 3 credits
478-423 Immunology Laboratory, 1 credit
478-444 Endocrinology, 3 credits

For teacher preparation in the biology major, the minimum number of credits in biology is 26. In consultation with an adviser, students may complete the 26 credits from more than one emphasis area.

Requirements for the Minor
Supporting Courses, 18 credits
204-202 Principles of Biology I, 4 credits
204-203 Principles of Biology II, 4 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits

Upper-Level Courses, 14-15 credits
204-303 Genetics, 3 credits
362-302 Principles of Ecology, 4 credits
One of these:
204-302 Principles of Microbiology, 4 credits
204-317 Cell Biology, 4 credits
One of these:
204-311 Plant Physiology, 4 credits
304-346 Comparative Physiology, 3 credits

Business Administration
Interdisciplinary Major or Minor
Professor — William Conley.
Lecturers — Brent Hussin, Donald McCartney, Ann Selk.

UW-Green Bay’s major or 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, continuous quality improvement, social responsibility and ethics, and the relationship between organizations and various environmental forces.

The business 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, finance, management, and marketing. Each business major extensively studies an area of emphasis: finance, management or marketing. Each emphasis consists of courses designed to thoroughly prepare the student in a business specialization. In addition, business administration students are required to develop expertise and problem-solving proficiency in at least one other field by completing a non-business minor. Each student works with a faculty advisor to plan a program which meets the student’s personal and professional goals.

A distinctive feature of the program is that the majority of upper-level courses include a practical project component, offering the opportunity to apply the problem-solving theories and concepts learned in the classroom to real situations. Alumni say these experiences increase their value to employers and set 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 the internship program, through which students learn while working in real business settings.

Program Entrance and Exit Requirements
Entering freshmen should declare a pre-business major when they enroll. To be eligible for admission to the business administration major or minor, a student must have a minimum 2.5 grade point average on a total of at least 36 earned credits. Transfer students who have less than 36 degree credits and/or less than a 2.5 grade point average, must earn 15 degree credits at UW-Green Bay and earn a 2.5 gpa or better on those 15 credits.
Eligibility does not guarantee admission. Only the most qualified applicants, based upon grade point average, are admitted from the pool of eligible students. The number of students admitted is determined by availability of faculty, enrollment levels and other considerations.

All students must have a total of 36 earned credits with a minimum 2.5 grade point average to enroll in the "gateway" courses (107-305 and 216-322, 343, and 382).

All students must meet business administration's exit requirement to graduate with the major in business administration. Students intending to graduate with the major must have a minimum 2.5 cumulative grade point average.

## Requirements for the Major

### Supporting Courses, 18 credits

- 216-215 Introduction to Business Statistics, 3 credits
- (or 600-260 Introductory Statistics, 4 credits)
- 216-217 Advanced Business Statistics, 3 credits
- 216-280 Introduction to Management Information Systems, 3 credits
- 298-202 Macro Economic Analysis, 3 credits
- 298-203 Micro Economic Analysis, 3 credits
- 352-103 Expository Writing, 3 credits

(waived for students with an ACT English score of 32 or higher)

### Core Courses, 31 credits

- 107-300 Introductory Accounting, 4 credits
- 107-302 Managerial Accounting I, 3 credits
- 107-305 Legal Environment of Business, 3 credits
- 216-322 Introductory Marketing, 3 credits
- 216-343 Corporation Finance, 3 credits
- 216-347 Financial Markets and Institutions, 3 credits (or any 216-34X/44X course; 216-347 is required for finance emphasis)
- 216-382 Introductory Management, 3 credits
- 216-389 Organizational Behavior, 3 credits (or any 216-38X/48X course; 216-389 is required for management emphasis)
- 216-428 Consumer Behavior, 3 credits (or any 216-32X/42X course; 216-428 is required for marketing emphasis)
- 216-490 Seminar in Business Problems (capstone), 3 credit

### Areas of Emphasis, 12 credits

Each student takes four emphasis courses selected from the areas of finance, management, or marketing.

- **Finance**
  - 216-442 Principles of Investment, 3 credits
  - 216-445 International Financial Management, 3 credits
  - 216-446 Advanced Corporation Finance, 3 credits
- **One of these:**
  - 216-447 Advanced Investments, 3 credits
  - 216-450 Bank Administration, 3 credits
- **Management**
  Students select one of two specializations: general management or human resource management

#### General Management:

- 216-480 Quality Management, 3 credits
- 216-482 Strategic Management, 3 credits
- 216-489 Organizational Theory, 3 credits

One of these:

- 107-452 Advanced Microcomputer Business Applications, 3 credits
- 216-317 Computer Optimization, 3 credits
- 216-352 Human Resource Management, 3 credits
- 216-354 Production/Operations Management, 3 credits
- 216-386 Field Project in Business Management, 3 credits
- 216-472 Seminar in Leadership, 3 credits

### Human Resource Management:

- 216-352 Human Resource Management, 3 credits
- 216-460 Human Resource Development, 3 credits
- 216-462 Seminar in Human Resource Management, 3 credits
- 216-467 Compensation and Benefits Planning, 3 credits

#### Marketing

- 216-421 International Marketing, 3 credits
- 216-424 Marketing Research, 3 credits

**Two of these:**

- 216-327 Selling and Sales Management, 3 credits
- 216-423 Advertising, 3 credits
- 216-426 Marketing Management, 3 credits
- 216-427 Practicum in Marketing Research, 3 credits

### Minor, 18 credits

All business administration majors must complete a nonbusiness minor composed of at least 18 credits.

## Requirements for the Minor

### Supporting Courses, 15-16 credits

- 298-202 Macro Economics Analysis, 3 credits
- 298-203 Micro Economics Analysis, 3 credits
- 216-215 Introduction to Business Statistics, 3 credits
  (Or its equivalent: either 600-260 Introductory Statistics, 4 credits; or 255-205 Social Science Statistics, 4 credits)

One of these:

- 216-202 Business and Its Environment, 3 credits
- 216-282 Personal Financial Planning, 3 credits

**One of these:**

- 107-305 Legal Environment of Business, 3 credits
- 216-206 Law and the Individual, 3 credits

### Upper-Level Courses, 13 credits

- 107-300 Introductory Accounting, 4 credits
- 216-322 Introductory Marketing, 3 credits
- 216-343 Corporation Finance, 3 credits
- 216-382 Introductory Management, 3 credits
Chemistry

Disciplinary Major or Minor

Associate Professors — Warren V. Johnson, John M. Lyon (chairperson).
Assistant Professors — James Noblet, Yan Xiang.
Lecturer — Nydia Villanueva.

Chemists have made significant contributions to the improvement of the quality of our lives. They have played a vital role in the advancement of somany 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.

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. 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. Students are encouraged to refine these skills by engaging in research. 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, pulp and paper, environmental chemistry, molecular modeling, radon, biochemistry, and molecular biology. Experience in research is very important when entering the job market and in applying to graduate and professional schools.

The University maintains an excellent collection of modern instrumentation, including nuclear magnetic resonance spectrometers, mass spectrometers, uv-visible spectrophotometers, ir spectrophotometers, atomic absorption spectrometers, gas chromatographs, liquid chromatographs, gamma-ray and liquid scintillation counters. Students gain hands-on experience with these instruments during advanced coursework and in research projects.

The UW-Green Bay chemistry program is accredited by the American Chemical Society (ACS). Students who want to add depth to their programs may pursue an individual ACS-certified major in either chemistry or environmental chemistry. Students who complete these majors are registered with the ACS and have the certification recorded on their official University credentials.

Chemistry majors combine their studies with an interdisciplinary minor. A chemistry major combined with a minor in human biology is excellent training for students aiming for professional schools in the health sciences, medicine, dentistry, and veterinary medicine. Environmental science would be an appropriate interdisciplinary minor for students planning careers as chemists or in environmental studies, or pursuing graduate studies in chemistry. About half of UW-Green Bay chemistry majors continue their studies in graduate or professional schools.

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

Requirements for the Major

Supporting Courses, 29 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits
362-207 Laboratory Safety, 1 credit
600-202 Calculus and Analytic Geometry I, 4 credits
600-203 Calculus and Analytic Geometry II, 4 credits
754-201 Principles of Physics I, 5 credits
754-202 Principles of Physics II, 3 credits

Upper-Level Courses, 28 credits
225-302 Organic Chemistry I, 3 credits
225-303 Organic Chemistry II, 3 credits
225-304 Organic Chemistry Laboratory I, 1 credit
225-305 Organic Chemistry Laboratory II, 1 credit
225-311 Analytical Chemistry, 4 credits
225-320 Thermodynamics and Kinetics, 3 credits
225-321 Structure of Matter, 3 credits
225-322 Thermodynamics and Kinetics Laboratory, 1 credit
225-323 Structure of Matter Laboratory, 1 credit
225-413 Instrumental Analysis, 4 credits

Electives, choose 4 credits:
225-330 Biochemistry, 3 credits
225-331 Biochemistry Laboratory, 1 credit
225-402 Advanced Organic Chemistry, 3 credits
225-403 Advanced Organic Chemistry Laboratory, 1 credit
225-407 Molecular Biology, 3 credits
225-408 Molecular Biology Laboratory, 1 credit
225-410 Inorganic Chemistry, 3 credits
225-411 Inorganic Chemistry Laboratory, 1 credit
225-417 Nuclear Physics and Radiochemistry, 3 credits
225-418 Nuclear Physics and Radiochemistry Laboratory, 1 credit
225-420 Polymer Chemistry, 3 credits

American Chemical Society-Certified Major

Required courses for the chemistry major, plus:
225-410 Inorganic Chemistry, 3 credits
225-411 Inorganic Chemistry Laboratory, 1 credit
225-495 Research in Chemistry, 3 credits
266-455 Microprocessors and Digital Electronics, 3 credits
600-305 Ordinary Differential Equations, 3 credits

American Chemical Society-Certified Major in Environmental Chemistry

Required courses for the chemistry major, plus:
Supporting Courses
204-202 Principles of Biology I, 4 credits
204-302 Principles of Microbiology, 4 credit
296-202 Physical Geology, 4 credits
362-102 Introduction to Environmental Science, 3 credits
600-260 Introductory Statistics, 4 credits

Upper-Level Courses
225-344 Environmental Chemistry, 3 credits
225-345 Environmental Chemistry Laboratory, 1 credit
225-410 Inorganic Chemistry, 3 credits
225-411 Inorganic Chemistry Laboratory, 1 credit
225-495 Research in Chemistry, 3 credits
Requirements for the Minor

Supporting Courses, 11 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits
362-207 Laboratory Safety, 1 credit

Upper-Level Courses, 12 credits
225-311 Analytical Chemistry, 4 credits

One of these:
225-300 Bio-Organic Chemistry, 3 credits
225-302 Organic Chemistry I, 3 credits

One of these:
225-301 Bio-Organic Chemistry Laboratory, 1 credit
225-304 Organic Chemistry Laboratory I, 1 credit

One of these:
225-303 Organic Chemistry II, 3 credits
225-320 Thermodynamics and Kinetics, 3 credits
225-321 Structure of Matter, 3 credits
225-330 Biochemistry, 3 credits
225-407 Molecular Biology, 3 credits
225-410 Inorganic Chemistry, 3 credits
225-413 Instrumental Analysis, 4 credits
225-417 Nuclear Physics and Radiochemistry, 3 credits
225-434 Environmental Chemistry, 3 credits

One of these:
225-305 Organic Chemistry Laboratory II, 1 credit
225-322 Thermodynamics and Kinetics Laboratory, 1 credit
225-323 Structure of Matter Laboratory, 1 credit
225-331 Biochemistry Laboratory, 1 credit
225-408 Molecular Biology Laboratory, 1 credit
225-411 Inorganic Chemistry Laboratory, 1 credit
225-418 Nuclear Physics and Radiochemistry Laboratory, 1 credit
225-435 Environmental Chemistry Laboratory, 1 credit

Communication and the Arts

Interdisciplinary Major or Minor

Professors — David Damkoehler, Jerry Dell, Carol Enmons, Jeffrey Entwistle, Terence O'Grady, Karen Winzenz.
Associate Professors — Jeffrey Benzow, Kevin Collins, Victoria Geff, Cheryl Grosso, Curtis Heuer, Sarah Meredith, Laura Riddle, John Salerno, Christine Style.
Assistant Professors — Elizabeth Ameni, Jan Bradfield, Janice Casano, Michael Ingraham, John Mariano, Jennifer Mokren, Thomas Piottenhaer, William Witwer, Scott Wright.
Lecturers — Kristy Deetz, Jeannelyn Schwarzenbach.

Communication and the arts is concerned with the structure, roles, and social and aesthetic consequences of all forms of communication, particularly graphic design, visual art, music, theatre, environmental design, and mass media.

The program offers two major areas of emphasis: communication arts and environmental design. It also offers three minor areas of emphasis: arts and society, arts management, and graphic communication. These are often combined with disciplinary programs such as art, music and theatre, among others.

Emphases for the Major in Communication and the Arts

Communication arts brings together studies of image and text to examine both the theory and the process of informative and expressive communication. The curriculum includes a series of core courses in graphic design and studies in the history, applications, and influences of print, video, and computer-generated communications. Students learn to apply problem-solving skills as they use computer-aided design and imaging in both PC and Macintosh platforms, along with traditional photographic and print imaging and production methods, writing skills, and creative thinking to develop solutions to communication problems.

This emphasis provides a contemporary liberal arts education and an array of professional skills for a wide range of careers and advanced study, including graphic design, public relations, advertising and marketing, publications management, art direction, creative advertising and editorial photography, multi-media and web site design, and electronic publishing, among others. The emphasis has a practicum and internship component through which students can gain professional experience in these areas.

Students have access to a modern, electronic-publishing graphics computer laboratory and photography darkroom, studios, and image processing laboratory facilities. A general-access Macintosh computer laboratory also supports the communication arts program.

Environmental design is offered cooperatively with urban and regional studies and examines the forces that shape the settings in which people live and act. The program emphasizes understanding and using the design process as a creative decision-making tool, especially through its core workshops, which focus on design projects ranging from individual and small-group environments to building design and downtown community redevelopment. Students may combine this emphasis with programs in art, psychology, pre-architecture, or pre-engineering to prepare for graduate study or for careers in architecture, engineering, urban planning, interior design, or industrial design.

Students have access to computer-aided design and drawing (CADD) equipment and model-building facilities as well as space for presentation of design solutions to clients and community members.
Emphases for the Minor in Communication and the Arts

- **Arts and society** develops a broad understanding of the role of the arts in western and non-western societies. While aesthetic considerations are addressed, the emphasis is on the social context for the arts, i.e., how the arts reflect and contribute to social and cultural identity and how they are in turn influenced by the cultures—both historical and contemporary—in which they are created. This emphasis will be of interest to students in the arts who seek to understand the broader social implications of their discipline and the ways it is linked to other forms of artistic expression. It will also be useful for students in the humanities and social sciences who have special interest in the arts and their social and aesthetic relationships.

- **Arts management** aims at developing the conceptual and cultural understanding and the professional skills required for support and management of the arts. Working within an interdisciplinary related arts context, students focus on such areas as public awareness and audience-building, funding and financial management, and the role of the arts in the community. Practicum and internship experiences are available through a wide range of community arts organizations and agencies as well as on-campus visual and performing arts activities.

- **Graphic communications** focuses on integrating text and images into coherent and effective communication. Combined with a major in art, communications processes (electronic media, photography, or journalism), or business administration, the emphasis prepares students for a broad array of careers in advertising, design, publishing, computer graphics, illustration, and photography. Graduate study in graphic design, visual communication, or art are other possibilities. The emphasis has an active internship component through which students can gain professional experience.

**Requirements for the Major**

**Areas of Emphasis**
Each area of emphasis has unique requirements for supporting and upper-level courses.

**Communication Arts**

**Supporting Courses, 29 credits**
- 168-101 Tools, Safety, and Materials, 1 credit
- 168-106 Design Methods, 3 credits
- 168-107 Two-Dimensional Design, 3 credits
- 242-231 Introduction to Graphic Communications, 4 credits
- 246-102 Introduction to Mass Communication, 3 credits
- 246-203 Newswriting Laboratory, 3 credits
- 246-243 Introduction to Photography, 3 credits

**History and Theory, choose 9 credits:**
- History (minimum of 3 credits)
  - 242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
  - 242-202 Concepts and Issues of Modern Art, 3 credits
  - 242-270 Modern Art and Culture, 3 credits
- Theory (minimum of 3 credits)
  - 242-430 Communication, Media and Society, 3 credits
  - 246-380 Communication Law, 3 credits

**Upper-Level Courses, 24 credits**

- 242-331 Graphic Communications Studio I, 3 credits
- 242-332 Graphic Communications Studio II, 3 credits
- 242-433 Advanced Graphics Studio, 3 credits

**Writing/Text Processing, choose 6 credits:**
- 242-375 Communication Skills: Language of Metaphor, 3 credits
- 246-303 Feature Writing, 3 credits
- 246-390 Scientific and Technical Communication, 3 credits

**Image Processing, choose 6 credits:**
- 168-343 Photography II, 3 credits
- 168-344 Photography III, 3 credits
- 168-375 Screen Printing, 3 credits
- 168-377 Intermediate Lithography, 3 credits
- 168-470 Advanced Printmaking, 3 credits

- **Applied/Practicum, choose 3 credits:**
  - 242-433 Practicum in Integrated Publishing, 1-4 credits
  - 242-497 Internship in Graphic Communication, 3 credits
  - 246-460 Publications Management, 3 credits

**Environmental Design**

**Supporting Courses, 15 credits**
- 166-106 Design Methods, 3 credits
- 325-105 Engineering Graphics, 3 credits

- **Choose 9 credits:**
  - 242-102 History of the Visual Arts: Ancient to Medieval, 3 credits
  - 242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
  - 242-202 Concepts and Issues of Modern Art, 3 credits
  - 242-231 Introduction to Graphic Communications, 4 credits
  - 951-103 Introduction to Urban Studies, 3 credits

**Upper-Level Courses, 24 credits**

- 242-331 Graphic Communications Studio I, 3 credits
- 242-332 Graphic Communications Studio II, 3 credits
- 242-433 Practicum in Integrated Publishing, 3 credits
- 242-497 Internship in Graphic Communication, 3-12 credits
- 951-412 Urban and Regional Planning, 3 credits

- **Choose 9 credits:**
  - 242-436 Environmental Design Studio I, 3 credits (individual scale)
  - 242-437 Environmental Design Studio II, 3 credits (small-group scale)
  - 242-438 Environmental Design Studio III, 3 credits (community scale)
  - 242-439 Environmental Design Studio IV, 3 credits (senior project)

**Requirements for the Minor**

**Areas of Emphasis**
Each area of emphasis has unique requirements for supporting and upper-level courses.

- **Arts and Society**

**Supporting Courses, 9 credits**
- 242-261 Foundations I: Aesthetic Experience, 3 credits
- 242-263 Foundations II: Arts and Society, 3 credits

- **Choose 3 credits:**
  - 242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
  - 242-121 Masters and Masterpieces of Music, 3 credits
  - 242-141 Introduction to the Theatre Arts, 3 credits
  - 242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits
  - 242-202 Concepts and Issues of Modern Art, 3 credits
  - 242-272 Women in the Arts, 3 credits

**Upper-Level Courses, 12 credits**

- 242-325 Cross-Cultural Communication: Jazz History, 3 credits
- 242-328 Cross-Cultural Communication: Musical Theater History, 3 credits
- 242-339 Cross-Cultural Communication: World Music, 3 credits
- 242-393 Inter-Arts Workshop, 3 credits
- 915-311 Theatre History II, 3 credits
Category II: Visual Arts
242-362 Aesthetic Awareness: Psychology of Aesthetic Perception, 3 credits
242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits
242-393 Inter-Arts Workshop, 3 credits

Required Seminar, 3 credits
242-464 Arts and Society Seminar, 3 credits

Arts Management
Supporting Courses, 9 credits
242-255 Introduction to Arts Management, 3 credits
242-261 Foundations I: Aesthetic Experience, 3 credits

Choose 3 credits:
242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
242-121 Masters and Masterpieces of Music, 3 credits
242-141 Introduction to the Theatre Arts, 3 credits
242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits
242-202 Concepts and Issues of Modern Art, 3 credits
242-272 Women in the Arts, 3 credits

Upper-Level Courses, 12 credits
242-355 Funding and Financial Issues in the Arts, 3 credits
242-356 Promoting the Arts, 3 credits
242-464 Arts and Society Seminar, 3 credits

Choose 3 credits:
242-357 Arts in the Community, 3 credits
242-455 Practicum in Arts Management, 3 credits
242-497 Internship in Arts Management, 3 credits

Upper-Level Courses, 12 credits
Choose 6 credits:
242-331 Graphic Communications Studio I, 3 credits
242-332 Graphic Communications Studio II, 3 credits
242-433 Advanced Graphics Studio, 3 credits
242-497 Internship in Graphic Communications, 3-12 credits

Choose remaining 6 credits from:
242-301 COA: Oneida Language Project, 3-5 credits
242-323 Language and Society, 3 credits
242-327 Cross-Cultural Communication: Jazz History, 3 credits
242-328 Cross-Cultural Communication: Musical Theatre History, 3 credits
242-329 Cross-Cultural Communication: World Music, 3 credits
242-332 Graphic Communications Studio II, 3 credits
242-362 Aesthetic Awareness: Psychology of Aesthetic Perception, 3 credits
242-370 Modern American Culture, 3 credits
242-371 World Art, 3 credits
242-375 Communication Skills: Language of Metaphor, 3 credits
242-379 Ancient Mesoamerican Art, Architecture and Culture, 3 credits
242-380 Travel Course: The Arts Abroad, 3 credits
242-430 Information, Media and Society, 3 credits
242-432 Advanced Graphics Studio, 3 credits
242-435 Practicum in Integrated Publishing, 1-4 credits
242-436 Environmental Design Studio I, 3 credits (individual scale)
242-437 Environmental Design Studio II, 3 credits (small-group scale)
242-438 Environmental Design Studio III, 3 credits (community scale)
242-439 Environmental Design Studio IV, 3 credits (senior project)
242-477 Women as Creative Agents, 3 credits
242-497 Internship, 3-12 credits

Graphic Communications
Supporting Courses, 10 credits
168-107 Two-Dimensional Design, 3 credits
242-231 Introduction to Graphic Communications, 4 credits

Choose 3 credits:
168-101 Tools, Safety, and Materials, 1 credit
168-106 Design Methods, 3 credits
242-102 History of the Visual Arts: Ancient to Medieval, 3 credits
242-103 History of the Visual Arts: Renaissance to Modern, 3 credits
242-121 Masters and Masterpieces of Music, 3 credits
242-141 Introduction to the Theatre Arts, 3 credits
242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits
242-160 Introduction to Language, 3 credits
242-202 Concepts and Issues of Modern Art, 3 credits
242-221 Popular Music Since 1955, 3 credits
242-261 Foundations I: Aesthetic Awareness, 3 credits
242-272 Women in the Arts, 3 credits
246-102 Introduction to Mass Communication, 3 credits
246-203 Newswriting Laboratory, 3 credits
246-243 Introduction to Photography, 3 credits
Communication Processes

Interdisciplinary Major or Minor

Professors — Clifford Abbott (linguistics), Philip Clamput (organizational communication), Jerry Dell (photography), Timothy Meyer (electronic media, public relations).

Associate Professors — Jeffrey Benzow (graphic communication), Charles Matter (cognitive and perceptual psychology), Victoria Goff (print journalism).

Assistant Professor — Jennifer Stryler-Duch.

Lecturer — Jeannelyn Schwarzenbach.

The interdisciplinary program in communication processes offers contemporary communication studies emphasizing comprehension understanding of communication in traditional and new media and study in depth of particular forms 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 they are interpreted in different contexts; and how they construct those contexts.

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

Before being admitted to the communication processes major, a student must earn a minimum grade point average (gpa) of 2.5 based on completion of 30 degree credits and must complete an application form including a resume and a personal action plan. Students not meeting the gpa minimum may contact their faculty advisor for information on appeal procedures.

Communication processes offers six areas of emphasis.

Electronic media: students 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 upon society and culture.

Organizational communication: develop basic communication skills needed in organizations, such as speaking, interviewing, and discussion skills. They also learn about sources of communication problems in organizations, apply strategies for discovering and solving these problems, and build an understanding of current theories of organizational communication.

Photography: students come to understand photography as a problem solving process combining imagination, intuition, critical analysis, and mastery of tools and materials, including traditional photographic means and new digital and electronic imaging systems. The integration of theoretical concepts and practical experience prepares students for diverse applications of photography.

Journalism: students must have writing skill, the ability to dig, a concern for people, a strong sense of humor, and an ability to write in public affairs, including their cultural, social, economic, and political context. Good journalists develop these qualities through this program and a thorough liberal arts education.

Public relations: complete requirements which reflect the demand for graduates who can write well, are facile acquainted with the wide range of available modes of communication (graphics, print media, electronic media, oral discourse, and their many combinations), and are particularly skilled in at least one of them.

Linguistics and English as a second language (ESL): integrate a strong background in language structure and variation with substantial preparation in foreign language and cross-cultural studies and education, both to succeed in the ESL classroom and to prepare for advanced studies at the graduate level.

Communication processes is also a good choice for students who seek teacher preparation in English/communication arts, journalism/mass media, speech/organizational communication, and English as a second language. Students seeking teaching licensure should consult advisors in the education program.

Internships in communication processes provide qualified students in all the areas above opportunities for faculty-supervised experience in professional settings outside the classroom. In addition, several communication processes courses involve students in research projects in the community.

Communication processes graduates have entered a wide variety of academic and professional areas: news reporting, photojournalism, broadcast journalism, graphic illustration, television production, printing and publications, advertising, sales and marketing, management consulting, teaching English as a second language in public schools and universities, technical writing and editing, public relations, and government service, as well as graduate study in photography, theoretical and applied linguistics, information science, library science, and telecommunications.

Requirements for the Major

Areas of Emphasis

Electronic Media

Supporting Courses, 24 credits

Core courses, required:
246-102 Introduction to Mass Communication, 3 credits
246-200 Communication Processes: An Introduction, 3 credits
246-201 Human Information Processing, 3 credits
246-282 Principles of Public Relations/Corporate Communications, 3 credits

Oral skills, choose one:
246-133 Fundamentals of Public Address, 3 credits
246-166 Fundamentals of Interpersonal Communication, 3 credits

Writing skills, choose one:
246-203 Newswriting Laboratory, 3 credits
246-280 Business and Professional Communication Skills, 3 credits

Visual skills, choose one:
246-243 Introduction to Photography, 3 credits
520-230 Visual Information, 3 credits

Elective, choose one:
242-160 Introduction to Language, 3 credits
242-231 Introduction to Graphic Communications, 4 credits

Upper-Level Courses, 30 credits

246-305 Elements of Electronic Media, 3 credits
246-306 Radio Broadcasting, 3 credits
246-307 Television Production Techniques, 3 credits
246-308 Information Technologies, 3 credits
246-309 Electronic Media Commercial Campaigns, 3 credits
246-380 Communication Law, 3 credits

Choose one:
246-448 Human Communication Theory, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose three:
242-430 Information, Media and Society, 3 credits
246-303 Feature Writing, 3 credits
246-333 Persuasion and Argumentation, 3 credits
246-335 Organizational Communication, 3 credits
246-336 Theories of the Interview, 3 credits
246-337 Small Group Communication, 3 credits
246-343 Photography III, 3 credits
246-403 Advanced Reporting, 3 credits
Elective, choose one:
- 168-105 Drawing, 3 credits
- 168-107 Two-Dimensional Design, 3 credits
- 242-160 Introduction to Language, 3 credits
- 242-231 Introduction to Graphic Communications, 4 credits
- 246-280 Business and Professional Communication Skills, 3 credits
- 520-230 Visual Information, 3 credits

Upper-Level Courses, 30 credits
- 246-343 Photography II, 3 credits
- 246-344 Photography III, 3 credits
- 246-380 Communication Law, 3 credits
- 246-443 Advanced Problems in Photography, 3 credits (may be taken three times)
- 246-493 Photography Portfolio, 3 credits

Choose one:
- 246-445 Human Communication Theory, 3 credits
- 246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose four:
- 242-380 Travel Course: The Arts Abroad, 3 credits
- 242-430 Information, Media and Society, 3 credits
- 246-303 Feature Writing, 3 credits
- 246-305 Elements of Electronic Media, 3 credits
- 246-307 Television Production Techniques, 3 credits
- 246-308 Information Technologies, 3 credits
- 246-309 Electronic Media Commercial Campaigns, 3 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 246-403 Advanced Reporting, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-450 Publications Management, 3 credits
- 246-480 Cases in Public Relations and Corporate Communications, 3 credits
- 246-497 Internship, 3-12 credits

Journalism

Supporting Courses, 24 credits
Core courses, required:
- 246-102 Introduction to Mass Communication, 3 credits
- 246-200 Communication Processes: An Introduction, 3 credits
- 246-201 Human Information Processing, 3 credits
- 246-282 Principles of Public Relations/Corporate Communications, 3 credits

Oral skills, choose one:
- 246-133 Fundamentals of Public Address, 3 credits
- 246-166 Fundamentals of Interpersonal Communication, 3 credits

Writing skills, required:
- 246-203 News Writing Laboratory, 3 credits

Visual skills, required:
- 246-243 Introduction to Photography, 3 credits

Elective, choose one:
- 168-105 Drawing, 3 credits
- 168-107 Two-Dimensional Design, 3 credits
- 242-160 Introduction to Language, 3 credits
- 242-231 Introduction to Graphic Communications, 4 credits
- 246-280 Business and Professional Communication Skills, 3 credits
- 520-230 Visual Information, 3 credits

Upper-Level Courses, 30 credits
- 246-343 Photography II, 3 credits
- 246-344 Photography III, 3 credits
- 246-380 Communication Law, 3 credits
- 246-443 Advanced Problems in Photography, 3 credits (may be taken three times)
- 246-493 Photography Portfolio, 3 credits

Choose one:
- 246-445 Human Communication Theory, 3 credits
- 246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose four:
- 242-380 Travel Course: The Arts Abroad, 3 credits
- 242-430 Information, Media and Society, 3 credits
- 246-303 Feature Writing, 3 credits
- 246-305 Elements of Electronic Media, 3 credits
- 246-307 Television Production Techniques, 3 credits
- 246-308 Information Technologies, 3 credits
- 246-309 Electronic Media Commercial Campaigns, 3 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 246-403 Advanced Reporting, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-450 Publications Management, 3 credits
- 246-480 Cases in Public Relations and Corporate Communications, 3 credits
- 246-497 Internship, 3-12 credits

Photography

Supporting Courses, 24 credits
Core courses, required:
- 246-102 Introduction to Mass Communication, 3 credits
- 246-200 Communication Processes: An Introduction, 3 credits
- 246-201 Human Information Processing, 3 credits
- 246-282 Principles of Public Relations/Corporate Communications, 3 credits

Oral skills, choose one:
- 246-133 Fundamentals of Public Address, 3 credits
- 246-166 Fundamentals of Interpersonal Communication, 3 credits

Writing skills, required:
- 246-203 News Writing Laboratory, 3 credits

Visual skills, required:
- 246-243 Introduction to Photography, 3 credits
Choose one:
246-353 Practicum in Print Journalism II, 3 credits
246-497 Internship, 3-12 credits

Choose one:
246-445 Human Communication Theory, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose three:
242-430 Information, Media and Society, 3 credits
246-305 Elements of Electronic Media, 3 credits
246-308 Information Technologies, 3 credits
246-333 Persuasion and Argumentation, 3 credits
246-335 Organizational Communication, 3 credits
246-336 Theories of the Interview, 3 credits
246-343 Photography II, 3 credits
246-344 Photography III, 3 credits
246-353 Practicum in Print Journalism II, 3 credits
246-445 Human Communication Theory, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits
246-497 Internship, 3-12 credits

Linguistics/Teaching English as a Second Language

Supporting Courses, 17 credits
Required:
242-160 Introduction to Language, 3 credits

And two years of a foreign language (14 college-level credits) or equivalent proficiency

Upper-Level Courses, 24 credits
242-323 Language and Society, 3 credits
242-375 Communication Skills: Language of Metaphor, 3 credits
246-322 Modern Linguistics, 3 credits
246-325 Applied Linguistics, 3 credits
246-327 Error Analysis and Treatment in Second Language Learning, 3 credits
246-445 Human Communication Theory, 3 credits
246-497 Internship, 3-12 credits
302-315 Teaching English as a Second Language, 3 credits

Requirements for the Minor

Supporting Courses, 15 credits
242-160 Introduction to Language, 3 credits

Choose one:
246-200 Communication Processes: An Introduction, 3 credits
246-282 Principles of Public Relations/Corporate Communications, 3 credits

Choose one:
246-133 Fundamentals of Public Address, 3 credits
246-166 Fundamentals of Interpersonal Communication, 3 credits

Writing skills, required:
246-203 Newswriting Laboratory, 3 credits
246-280 Business and Professional Communication Skills, 3 credits

Upper-Level Courses, 30 credits
246-305 Elements of Electronic Media, 3 credits
246-309 Electronic Media Commercial Campaigns, 3 credits
246-335 Organizational Communication, 3 credits
246-380 Communication Law, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose one:
246-303 Feature Writing, 3 credits
246-390 Scientific and Technical Communication, 3 credits

Choose one:
246-353 Practicum in Print Journalism II, 3 credits
246-460 Publications Management, 3 credits

Choose three:
242-430 Information, Media and Society, 3 credits
246-303 Feature Writing, 3 credits
246-307 Television Production Techniques, 3 credits
246-308 Information Technologies, 3 credits
246-333 Persuasion and Argumentation, 3 credits
246-336 Theories of the Interview, 3 credits
246-337 Small Group Communication, 3 credits
246-343 Photography II, 3 credits
246-353 Practicum in Print Journalism II, 3 credits
246-390 Scientific and Technical Communication, 3 credits
246-403 Advanced Reporting, 3 credits
246-445 Human Communication Theory, 3 credits
246-460 Publications Management, 3 credits
246-497 Internship, 3-12 credits

Upper-Level Courses, 15 credits
246-380 Communication Law, 3 credits

Choose one:
246-445 Human Communication Theory, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose one:
246-445 Human Communication Theory, 3 credits
246-480 Cases in Public Relations and Corporate Communications, 3 credits

Choose two:
242-323 Language and Society, 3 credits
242-375 Communication Skills: Language of Metaphor, 3 credits
242-430 Information, Media and Society, 3 credits

Plus choose one upper-level course from:
Communication and the Arts (242-xxx), Communication Processes (246-xxx), or Information Sciences (520-xxx)
Computer Science

Disciplinary Major or Minor

Professor — William A. Shay (Chairperson).
Associate Professors — Forrest B. Baulieu, Bruce W. Mielke.
Assistant Professor — Peter Breznay.
Lecturer — Linda Carl.

The field of computer science is undergoing important changes as technology advances and the need for computer software increases. Students entering this field must see a bachelor’s degree in computer science as the first step in an education process that spans their career. The goal of the computer science major is to provide students with important software design skills they can use upon graduation and a strong foundation upon which they can continue to build as the profession evolves. Students receive instruction in areas such as object-oriented design and programming, design of algorithms, network applications, database management systems, computer architecture, operating systems, and computer networks.

A computer science major must be both an organizer and a detail-oriented person and must understand that computer science is much more than learning some programming languages. The heart of the field is not the language, but the ability to define a problem, analyze various components, and project and evaluate potential solutions, all of which are subject to limitations and constraints inherent in a given computer. Students must understand that in industry there must be more than just a working program. Good software must also be fully documented, clearly written, and designed so that it is efficient and easily modifiable. Finally, students need to be able to work in groups. Many computer science courses have group work as part of their requirements.

The program also contains a theoretical component, which requires some mathematical skills and analytical abilities. Students develop programming and design skills they can use upon graduation but they must be prepared to enter a field which is rapidly changing and be able to adapt. This requires a solid theoretical foundation with a knowledge of how computers work, how they carry out tasks specified in applications software, and what distinguishes efficient applications from inefficient ones. This knowledge is an important ingredient to software design as it gives students the tools they need to analyze efficiency and evaluate various programming and data design options. Simply providing students with skills necessary to enter the computing profession is not sufficient. All students must be prepared to face the skills they have to 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 in which the employee is involved in the maintenance of existing software systems or the development of new ones.

All registered students have access to the University’s computing facilities. Student accounts allow students to access a wide variety of both PC and Macintosh computers, UNIX system (for select courses), the Internet, and the World Wide Web. Computer labs support a Windows NT network and contain Pentium/Pentium II machines and PowerMac MacIntoshes. Labs are open seven days a 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.

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 advisor very early in their college career.

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

Requirements for the Major

Supporting Courses, 19-22 credits
266-241 Discrete Mathematics I, 4 credits
266-242 Discrete Mathematics II, 4 credits
266-270 C and Linux, 2 credits
609-202 Calculus and Analytic Geometry I, 4 credits

And choose Set 1 or Set 2:
Set 1:
266-256 Software Design I, 4 credits
266-257 Software Design II, 4 credits

Set 2:
266-260 Accelerated Course in Software Design, 5 credits

Upper-Level Courses, 26-28 credits
266-351 Data Structures, 4 credits
266-353 Computer Organization and Programming, 3 credits
266-357 Theory of Programming Languages, 3 credits
266-358 Data Communication and Computer Networks, 3 credits
266-371 C++ and Object-Oriented Design, 3 credits
266-372 Object-Oriented Design and Programming, 3 credits

One of these:
266-478 Distinction in the Major, 3 credits
266-490 Capstone Essay in Computer Science, 1 credit
266-497 Internship, 3-12 credits

Electives, choose any two:
266-331 Internet Programming, 3 credits
266-350 Numerical Analysis, 3 credits
266-451 Database Management Systems, 3 credits
266-452 Operating Systems, 3 credits
266-455 Microprocessors and Digital Electronics, 3 credits
266-457 Compiler Theory, 3 credits

Requirements for the Minor

Supporting Courses, 13-16 credits
266-241 Discrete Mathematics I, 4 credits
266-242 Discrete Mathematics II, 4 credits

And choose Set 1 or Set 2:
Set 1:
266-256 Software Design I, 4 credits
266-257 Software Design II, 4 credits

Set 2:
266-260 Accelerated Course in Software Design, 5 credits

Upper-Level Courses, 12 credits
Choose 4 courses, subject to the approval of an adviser:
266-331 Internet Programming, 3 credits
266-350 Numerical Analysis, 3 credits
266-351 Data Structures, 4 credits
266-353 Computer Organization and Programming, 3 credits
266-357 Theory of Programming Languages, 3 credits
266-358 Data Communication and Computer Networks, 5 credits
266-371 C++ and Object-Oriented Design, 3 credits
266-372 Object-Oriented Design and Programming, 3 credits
266-451 Database Management Systems, 3 credits
266-452 Operating Systems, 3 credits
266-455 Microprocessors and Digital Electronics, 3 credits
266-457 Compiler Theory, 3 credits
Earth Science

Disciplinary Major or Minor

Professors — Steven L. Dutch (chairperson), Joseph M. Moran, Ronald D. Stiegitz.

Assistant Professor — Kevin Formanich.

Earth science is the study of the physical components of the environment (rocks, minerals, soil, water, and air), the various processes affected by those components, and the interactions between the physical environment and living organisms. The program’s special emphasis is on environmental geology in view of the growing need to apply principles of geology to environmental issues such as natural hazard mitigation, ground water conservation, and land reclamation.

The earth science program takes a problem-focused, interdisciplinary approach in which the physical environment is investigated as many interacting systems. Earth system science is an emerging field that 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 earth science program since the very founding of UW-Green Bay.

Career opportunities for earth scientists are varied. Environmental concerns have spurred demand for earth scientists in government agencies, consulting firms, and private industry. There is also strong demand for technically proficient earth scientists who are also skilled communicators able to bridge the gap between science and the public.

Majors in earth science may enter their careers upon graduation or may elect to pursue graduate study in geology, geophysics, soil science, meteorology, climatology, hydrology, or oceanography. Those intending to pursue graduate study are advised to complement requirements for the major with courses in physics, advanced mathematics, and computer science. The major may also be used to support another area of study.

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, earth science may be combined with business administration. Communication and the arts is an option for earth science students interested in print or electronic journalism (broadcast meteorology, for example).

Supporting communication skills are essential for earth scientists. Earth scientists must be able to communicate with people in other fields, many of whom lack scientific training. Knowledge of foreign languages, history, and other cultures provides access to foreign technical literature and facilitates working in other regions of the world. Technical skills gained through courses in air photo interpretation, remote sensing, and computer science are invaluable for the earth scientist.

As part of the program assessment in earth science, students will be required to produce a portfolio in their junior and senior years. The portfolio will include student projects and papers, evidence of attendance at conferences or field trips, awards, and any other records of significant activity. Students are encouraged to maintain a copy of their own as a personal record of their undergraduate accomplishments.

Students seeking teacher certification should consult with advisers in earth science and education early in their studies to make sure that their academic program meets all state requirements for certification.

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

Requirements for the Major

Supporting Courses, 28 credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>225-211</td>
<td>Principles of Chemistry I, 5 credits</td>
</tr>
<tr>
<td>225-212</td>
<td>Principles of Chemistry II, 5 credits</td>
</tr>
<tr>
<td>296-202</td>
<td>Physical Geology, 4 credits</td>
</tr>
<tr>
<td>296-203</td>
<td>Geologic Evolution of the Earth, 3 credits</td>
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<tr>
<td>296-204</td>
<td>Geologic Evolution of the Earth Laboratory, 1 credit</td>
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A minimum of 7 credits from these:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>266-161</td>
<td>Overview of Programming Constructs with Visual Basic, 3 credits</td>
</tr>
<tr>
<td>266-241</td>
<td>Discrete Mathematics I, 4 credits</td>
</tr>
<tr>
<td>266-242</td>
<td>Discrete Mathematics II, 4 credits</td>
</tr>
<tr>
<td>266-256</td>
<td>Software Design I, 4 credits</td>
</tr>
<tr>
<td>266-257</td>
<td>Software Design II, 4 credits</td>
</tr>
<tr>
<td>266-266</td>
<td>Accelerated Course in Software Design, 5 credits</td>
</tr>
<tr>
<td>600-202</td>
<td>Calculus and Analytic Geometry I, 4 credits</td>
</tr>
<tr>
<td>600-203</td>
<td>Calculus and Analytic Geometry II, 4 credits</td>
</tr>
<tr>
<td>600-209</td>
<td>Multivariate Calculus, 4 credits</td>
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<tr>
<td>600-260</td>
<td>Introductory Statistics, 4 credits</td>
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One of these:

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>246-133</td>
<td>Fundamentals of Public Address, 3 credits</td>
</tr>
<tr>
<td>246-390</td>
<td>Scientific and Technical Communication, 3 credits</td>
</tr>
<tr>
<td>353-105</td>
<td>Expository Writing, 3 credits</td>
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</table>

Upper-Level Courses, 24 credits

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>362-320</td>
<td>The Soil Environment, 4 credits</td>
</tr>
<tr>
<td>362-330</td>
<td>Hydrology, 3 credits</td>
</tr>
<tr>
<td>362-342</td>
<td>Environmental Geology, 3 credits</td>
</tr>
<tr>
<td>362-432</td>
<td>Hydrogeology, 3 credits</td>
</tr>
</tbody>
</table>

Two of these:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>296-340</td>
<td>Rock and Mineral Resources, 3 credits</td>
</tr>
<tr>
<td>296-402</td>
<td>Stratigraphy and Sedimentation, 3 credits</td>
</tr>
<tr>
<td>296-470</td>
<td>Quaternary Geology, 3 credits</td>
</tr>
<tr>
<td>362-454</td>
<td>Remote Sensing of the Environment, 3 credits</td>
</tr>
</tbody>
</table>

At least 6 credits from:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>396-492</td>
<td>Special Topics in Earth Science, 3 credits (Repeat up to two times. Course topics vary. Typical topics include mineralogy, structural geology, geologic field methods, and geomorphic processes.)</td>
</tr>
</tbody>
</table>

For students intending to pursue graduate study in geology, soil science, meteorology, climatology, or hydrology, additional course work should include at least one year of calculus, at least one year of physics, and upper-level courses in chemistry.

All students are expected to develop facility with personal computers, including familiarity with a programming language.
Requirements for the Minor

Supporting Courses, 19 credits
296-202 Physical Geology, 4 credits
296-203 Geologic Evolution of the Earth, 3 credits

At least 5 credits of chemistry at the 100-200-level.

At least two of these:
266-151 Overview of Programming Constructs with Visual Basic, 3 credits
266-241 Discrete Mathematics I, 4 credits
266-242 Discrete Mathematics II, 4 credits
266-256 Software Design I, 4 credits
266-257 Software Design II, 4 credits
266-266 Accelerated Course in Software Design, 5 credits
600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
600-202 Calculus and Analytic Geometry I, 4 credits
600-203 Calculus and Analytic Geometry II, 4 credits
600-209 Multivariate Calculus, 4 credits
600-290 Introduction to Statistics, 4 credits

Upper-Level Courses, 12 credits
362-342 Environmental Geology, 3 credits

Three of these:
296-470 Quaternary Geology, 3 credits
296-492 Special Topics in Earth Science, 3 credits
362-320 The Soil Environment, 4 credits
362-330 Hydrology, 3 credits
362-432 Hydrogeology, 3 credits
362-454 Remote Sensing of the Environment, 3 credits

Economics

Disciplinary Major or Minor

Professors — Kumar Kangayappan, Ismail Shariff (chairperson),
John Stoll.
Associate Professor — Larry Smith.
Assistant Professor — Thomas Nesleina.

Economics focuses on the allocation and distribution of scarce resources. As a social science, economics is fundamentally about people — their needs, wants and behavior, and the institutions they construct. As a discipline focusing on scarcity, economics includes the study of organizations and institutions that influence resource allocation, including businesses, governments, households, product markets, and the markets for land, labor, capital, and innovation, among others. Understanding these organizations provides insights into problems such as inflation, unemployment, government regulation, environmental degradation, poverty, and sustainable economic systems with or without growth.

Students who major or minor in economics receive training in quantitative methods, economic theory, and applied economic analysis. Students can tailor their academic programs to fit their particular strengths, interests, and career goals.

Economics majors must choose an interdisciplinary minor. Many economics majors at UW-Green Bay choose a minor in business with emphases in marketing or finance. Other students select minors in one of the interdisciplinary social science programs, environmental science, or the humanities.

The broad training received by economics students in incentive based decision-making creates a variety of career opportunities. Many UW-Green Bay economics majors enter careers in business, government agencies, and nonprofit organizations directly after graduation. Individuals trained in economics are frequently employed by banks and investment firms, government agencies, market research firms, insurance companies, management consulting firms, advertising agencies, labor unions, and as private entrepreneurs. Economics graduates have been employed in real estate, land use planning, financial planning, credit and collection, advertising, management, statistics, systems analysis, politics and public administration. Many go on to graduate schools, where they receive advanced training in such fields as business, economics, law, public policy, and urban studies.

Students may also desire to become certified teachers. In such cases, programs should be designed jointly with appropriate advisers in both the economics and education programs at UW-Green Bay.

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

Requirements for the Major

Supporting Courses, 16-19 credits required
298-202 Macro Economic Analysis, 3 credits
298-203 Micro Economic Analysis, 3 credits
298-207 Micro Economic Laboratory, 1 credit

One of these:
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

One of these:
216-280 Introduction to Management Information Systems, 3 credits
266-256 Software Design I, 4 credits

One of these:
600-201 Calculus for the Management and Social Sciences, 3 credits
600-202 Calculus and Analytic Geometry I, 4 credits
Upper-Level Courses, 24 credits

298-302 Intermediate Macro Economic Theory, 3 credits
298-303 Intermediate Micro Economic Theory, 3 credits
298-307 History of Economic Thought, 3 credits
298-310 Introduction to Quantitative Analysis and Econometrics, 3 credits

Electives, 12 credits:

298-301 Economic and Social Security, 3 credits
298-304 Contemporary Labor Markets, 3 credits
298-308 Business Cycles, 3 credits
298-330 Money and Banking, 3 credits
298-402 Environmental and Resource Economics, 3 credits
298-403 International Trade, 3 credits
298-404 Economics of Developing Areas, 3 credits
298-406 Comparative Economic Systems and Institutions, 3 credits
298-409 Public Finance and Fiscal Policy, 3 credits
298-485 Managerial Economics, 3 credits
951-309 Urban and Regional Economic Theory, 3 credits

Requirements for the Minor

Supporting Courses, 9-10 credits required

298-202 Macro Economic Analysis, 3 credits
298-203 Micro Economic Analysis, 3 credits

One of these:

216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
266-256 Software Design 1, 4 credits
600-201 Calculus for the Management and Social Sciences, 3 credits
600-260 Introduction to Statistics, 4 credits

Upper-Level Courses, 12 credits

One of these:

298-302 Intermediate Macro Economic Theory, 3 credits
298-303 Intermediate Micro Economic Theory, 3 credits

Electives, 9 credits:

Choose 300-400-level courses from the upper-level course listings in the major

Education

Interdisciplinary Major or Minor

Professors — Margaret Laughlin, Tom Van Kooker.  
Associate Professors — James Coates, Ted Korishinski, Barbara Law.  
Sandra Stokes, Jo Ann Thron, Francine Tompkins (chairperson).  
Assistant Professors — Tim Kaufman, Pat Ragan-Anderson.  
Lecturers — Karen Bircher, Art Lacey.

UW-Green Bay’s teacher education program has full approval of the Wisconsin Department of Public Instruction. The program is designed to prepare entry-level teachers with relevant content and professional knowledge and skills to effectively meet the future learning needs of a changing school population. The program also provides preparation for a variety of education-related professions.

At UW-Green Bay, students seeking elementary-level (grades 1-6 or 1-8) licensure will fulfill an interdisciplinary major in education supported by a Department of Public Instruction (DPI)-approved teaching minor. Graduates will receive a bachelor’s degree in education. Students may extend their qualifications to include early childhood and kindergarten education by completing additional courses and requirements.

Students who desire secondary-level teaching licensure will fulfill an interdisciplinary minor in education to support a subject-matter teaching major as required and approved by the Department of Public Instruction. They will graduate with the bachelor’s degree in their major subject and a secondary education minor.

The interdisciplinary, problem-focused studies offered at UW-Green Bay provide an 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 complement strong academic coursework in communications, the arts, humanities, social studies, science and mathematics.

UW-Green Bay offers teacher preparation in these subjects and grade levels:

- Early childhood/elementary-level (grades pre-school/kindergarten-3, pre-school/kindergarten-6, or pre-school/kindergarten-8)
- Elementary-level (grades 1-6)
- Elementary/secondary-level (grades 1-8)
- Secondary-level or middle/secondary-level (grades 9-12 or 6-12)
- Grades pre-school/kindergarten-12 in art, English as a second language, music, foreign languages

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

If you are interested in the field of education, but you are still not quite sure, you may want to enroll in Ed 250-Field Experience in Education. This course will help you explore the profession and provide you with a focused, school-based experience as well as a chance to discuss your experiences with other students, teachers, and faculty.

Who Should Seek an Education Major or Minor?

Obviously, you must enjoy being around children and adolescents. However, be very careful: a love of children does not guarantee that you will love teaching. This is a very demanding career, but also extremely rewarding. The best teachers are those who pursue a lifetime of learning, that does not end at graduation. Teaching should be a calling, a commitment to educating, and not just a job.
Students interested in becoming education majors 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.

Selecting a Minor
For the elementary education track, programs such as early childhood and adaptive education, language arts, mathematics, science, and social studies are examples of possible minors.

For those thinking about a secondary education minor: If you have a passion for your subject matter content area and a desire to actively engage others in the learning process, you just might have the foundation for building a career in teaching. Having education as your minor works great for almost any of the major disciplinary programs such as mathematics and science.

What You Can Do with This Major/Minor
The education major is a pre-professional program, which means it educates students to become entry-level teachers. However, there are many other career opportunities in education. Use the following as an idea list, and remember that it represents some, but certainly not all, of the careers you might consider in education.

The list of possible career titles for education majors includes: education specialist, athletic coach, athletic director, child welfare specialist, curriculum specialist, day care administrator, education management specialist, educational materials sales representative, education and training administrator, educational researcher, educational therapist, elementary school teacher, employee training instructor, guidance counselor, college/university instructor, kindergarten teacher, librarian, preschool administrator, secondary school teacher, speech pathologist, student admission administrator, and tutor.

The following list represents a few of the kinds of organizations that employ education majors: business and industry, camps, churches, colleges and universities, community centers, educational publishers, hospitals, libraries, non-profits, public and private schools, state and federal government, and youth services.

The Knowledge and Skills Gained in This Major
The core program for both elementary and secondary licensure candidates includes courses that address today's concerns in education: changes in schools and schooling, changes in the nature and nurtures 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 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.

Program Entrance Requirements

Preliminary Application — Students planning to complete a teacher preparation program should indicate their intent when they apply for admission to UW-Green Bay.

In addition, at the time of registration, students should indicate their specific program interest: preschoolelementary, secondary, or secondary.

Admission to the University and meeting minimum requirements does not guarantee admission to teacher education. The teacher education program has established admission limits based on available resources.

Admission decisions are made at the end of the fall semester and at the end of the spring semester. A committee of education faculty reviews applicants, bases admission decisions upon the criteria described below.

Application Process and Requirements —
1. Apply and be accepted to UW-Green Bay.
2. Submit a signed Application for Admission to the UW-Green Bay teacher education program. An official education file will be created for you upon receipt of your application. This file will contain all of your documents (required for admission, continued, and graduation) from the program.
3. Forty (40) university credits must be completed with a cumulative grade point average of 2.5. This grade point average is computed on the grade point average based upon all college course work attempted at all colleges and universities attended, and deemed equivalent to UW-Green Bay's degree programs. The credits must be graded credits (i.e., credits earned by examination or through retroactive credit basis will not apply.)
4. Successfully pass all three sections of the Pre-Professional Skills Test (PPST) and submit score reports to the Education Office. Minimum scores required are 175 in reading, 174 in writing, and 173 in mathematics. For more information on the PPST, contact the Education Office or Academic Advising Office.

5. Complete the required reading, writing, speaking, and listening proficiency requirements. The requirements can be met by taking a single course, 352-228 Writing About Education, and earning a grade of "C" or better. Students may also meet this requirement by taking 246-133 Fundamentals of Public Address, and 352-103 Expository Writing or equivalent, and earning a grade of "C" or better in both.

6. Successfully complete 302-250 Field Experience in Education or the equivalent. Written documentation of successful school-based experience will be required. The prerequisites for 302-250 is sophomore standing (24 or more credits).

7. Submit a copy of your high school transcript to the Education Office.
8. Submit the Letter of Intent to Enroll in Block 1 Introduction to the Art and Science of Teaching to the Education Office.
9. Submit the K-12 Teacher Recommendation Form to the Education Office.
10. Submit the UW-Green Bay Instructor Recommendation Form to the Education Office.

11. Also, students must be free from physical or mental/psychological impairment, which would substantially limit a person from performing the essential functions of a teacher candidate or teacher. Such physical or mental/psychological impairment does not disqualify a person who, with reasonable accommodations, can perform the essential functions of a teacher. An examination and recommendation by appropriate medical and/or other professional specialist will be required if deemed necessary. The University will make reasonable accommodations for students with disabilities.

Applicants must disclose whether they have been convicted of any crime and whether licensure to teach has ever been denied or revoked in any state for reasons other than insufficient credits or courses. A criminal record or denial or revocation of teaching license is not an automatic bar to application and is considered only as these substantially relate to the responsibilities of the teacher education program and eventual licensure.

In accordance with UW-Green Bay policy, persons denied admission are entitled to appeal.

Application Deadline — All of the above documents must be on file with the Education Office by the last day of classes of the semester preceding the desired semester of admission. Credits and grades required to meet the minimum requirements can be in progress and will be reviewed after final grades are recorded for that semester. It is the student's responsibility to make certain the admission application file is complete. Incomplete application files will not be reviewed for admission. Admission to the education program is competitive. Meeting all admission requirements does not guarantee admission.
Requirements for Teacher Preparation

Students planning education majors or minors should consult an academic adviser for sound program planning. Even though students cannot be accepted into the education program until they meet program entrance requirements, early planning is essential; teacher preparation requirements are specific and complex, and require ample credit hours. Also, DPI requirements change from time to time, making UW-Green Bay's education program requirements subject to change. Students must meet any new DPI requirements before they can expect licensure. Students are responsible for being aware of program requirements. Students should check with their education adviser each semester for new requirements for licensure.

In addition to course requirements listed here, there are regulations about time limits, grade point average and other requirements for completion and recommendation for licensure. Credit hours necessary to fulfill requirements vary, depending upon teaching subject major or minor, grade level licensure sought, and other factors. The Education Office can provide specific requirements.

Students who already hold a bachelor's degree who are interested in pursuing initial teacher preparation or Wisconsin certification as licensed teachers or extending their licensure to additional areas or grade levels should contact the Education Office regarding special requirements which apply to them.

Following are summaries of academic program components required for a degree and preparation for licensure.

Elementary-Level Requirements
General education
Interdisciplinary major in education:
  Lower-level support courses
  Core requirements
  Professional education sequence
Teaching subject minor(s)
Pre-student-teaching clinical experience
Student-teaching

Secondary-Level Requirements
General Education
Interdisciplinary minor in education:
  Lower-level support courses
  Core requirements
  Professional education sequence
Teaching subject major(s)
Electives, if needed, to total the required 120 credits
Pre-student-teaching clinical experiences
Student-teaching

Note: The faculty in education is in the process of revising the curriculum and courses in education. There are likely to be additional changes in the program. Students are advised to stay informed concerning any new changes and/or requirements.

General Education and Supporting Courses for Students Seeking Teacher Certification

All education students must fulfill the general education requirements of the University of Wisconsin-Green Bay as described in the General Education Requirements section of this catalog.

Following is a summary of supporting course requirements for teacher certification. Contact the Academic Advising Office for a current list of courses that may be used for fulfilling both the UW-Green Bay general education requirements and the supporting course requirements for the education major and minor.

- Written and oral communication
- Mathematics
- Fine arts
- Social studies (including government)
- Biological and physical sciences
- Humanities, including literature
- Western and non-western history or contemporary cultures
- United States history (for Elementary Education only)
- Human relations

Teaching Minor(s), 22 or more credits

Students seeking elementary licensure must complete one or more minors consisting of 22 credits minimum to prepare for licensure. These minors are currently available:

- Adaptive education
- Early childhood education
- English as a second language
- English/language arts
- Environmental studies
- Language: French, German, Spanish
- Mathematics
- Science
- Social studies

For students seeking certification in PK-8 or 1-8, the teaching minor certification is PK-9 or 1-9.

Teaching Major, 33 or more credits

Students seeking secondary or middle school licensure must complete a teaching subject major, selected from the DPI-approved majors list available in the Education Office.

Human Relations

This requirement may be fulfilled by a human relations course which may be taken as part of the general education sequence, and 30 clock hours of direct involvement with adult and pupil members of specified groups.

Conservation/Environmental Education, 2-3 credits

This is a requirement for those students pursuing licensure to teach early childhood/elementary education, elementary education, elementary/ middle school, and science and social studies at the middle and secondary levels.
**Education Core, 9 credits**

Changes in the Nature and Nurture of Students, 6 credits:

One of these:

481-331 Infancy and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits (required for Secondary or Middle/Secondary Level minors)

One of these:

302-352 Social and Family Influences on Early Development and Learning, 3 credits
481-342 Cross-Cultural Human Development, 3 credits
481-438 Counseling Across the Lifespan, 3 credits

Changes in Society and the Work Place, choose 3 credits:

242-430 Information, Media and Society, 3 credits
448-401 The Transformation of American Schools, 3 credits
478-205 Biotechnology and Human Values, 3 credits
481-336 Gender Across the Lifespan, 3 credits
875-241 Introduction to Women’s Studies, 3 credits
875-361 Historical Perspectives on Social Change, 3 credits
900-308 Sociology of the Family, 3 credits

**Professional Education**

- **Early Childhood/Elementary Level**
  - (Prekindergarten-3, prekindergarten-6, or prekindergarten-8)
  - 302-203 Introduction to Environmental Education in the Schools, 3 credits
  - 302-250 Field Experience in Education, 2 credits
  - 302-280 Instructional Technologies: Evaluation, Production and Application, 3 credits
  - 302-302 Teaching Social Studies in Elementary and Middle Schools, 3 credits
  - 302-303 Teaching Art in Elementary and Middle Schools, 3 credits
  - 302-304 Teaching Music in the Elementary and Middle Schools, 3 credits
  - 302-306 Teaching Health and Physical Education in Elementary and Middle Schools, 3 credits
  - 302-324 Teaching Mathematics in Elementary and Middle Schools, 3 credits
  - 302-325 Teaching Science in Elementary and Middle Schools, 3 credits
  - 302-333 Observation and Assessment of Young Children, 3 credits
  - 302-351 Introduction to the Art and Science of Teaching, 8 credits
  - 302-362 Integrating the Language Arts, 12 credits
  - 302-402 Student Teaching in the Elementary School, 12 credits
  - 302-414 Seminar in Student Teaching/Internship, 2 credits
  - 302-441 History, Philosophy, and Current Issues in Early Childhood Education, 3 credits
  - 302-442 Curriculum and Program Development in Early Childhood Education, 3 credits
  - 302-443 Teaching Kindergarten: The Integrated Curriculum, 3 credits
  - 302-445 Working and Communicating with Families of Young Children, 3 credits
  - 302-452 Principles of Middle Level Education, 3 credits
  - 481-331 Infancy and Early Childhood, 3 credits
  - 481-332 Middle Childhood and Adolescence, 3 credits
  - 481-334 Play and Creative Activities in Childhood, 3 credits
  - 302-336 Introduction to Experience with Young Children, 1 credit
  - OR
  - Approved, supervised experience with a group of young children

**Secondary or Middle/Secondary Level**

- 302-250 Field Experience in Education, 2 credits
- 302-280 Instructional Technologies: Evaluation, Production and Application, 3 credits
- 302-xx Teaching (specific subjects) in Middle/Secondary Schools, 3 credits
- 302-351 Field Project in School Settings, 1 credit
- 302-361 Introduction to the Art and Science of Teaching, 8 credits
- 302-401/402 Student Teaching in the Middle/Secondary Schools, 12 credits
- 302-442 Reading in the Content Areas, 3 credits

The following courses are required of specific areas of certification:

- 302-xxx Environmental Education in the Secondary Schools, 2 credits (required for social studies and science only)
- 302-420 Workshop in Economics Education, 1-3 credits (required for social studies only)
- 302-423 Communication and Thinking Skills Across the Curriculum, 3 credits (required for all areas of certification except English, art, and music)
- 302-452 Principles of Middle Level Education, 3 credits (required for grades 5-12: certification in all areas except K-12 ESL, K-12 art, and K-12 music)

**Also:**

A pre-student-teaching clinical experience in the teaching of reading is required for all secondary licensure areas except art and music.

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**Elementary and Elementary/Middle Level (1-8)**

- 302-203 Introduction to Environmental Education in the Schools, 3 credits
- 302-250 Field Experience in Education, 2 credits
- 302-280 Instructional Technologies: Evaluation, Production and Application, 3 credits
- 302-302 Teaching Social Studies in Elementary and Middle Schools, 3 credits
- 302-303 Teaching Art in Elementary and Middle Schools, 3 credits
- 302-304 Teaching Music in the Elementary and Middle Schools, 3 credits
- 302-306 Teaching Health and Physical Education in Elementary and Middle Schools, 3 credits
- 302-324 Teaching Mathematics in Elementary and Middle Schools, 3 credits
- 302-325 Teaching Science in Elementary and Middle Schools, 3 credits
- 302-361 Introduction to the Art and Science of Teaching, 8 credits
- 302-362 Integrating the Language Arts, 12 credits
- 302-401/402 Student Teaching in the Middle/Elementary Schools, 12 credits
- 302-414 Seminar in Student Teaching/Internship, 2 credits
- 302-452 Principles of Middle Level Education, 3 credits

**Also:**

A pre-student-teaching clinical experience in the teaching of reading.
Engineering

Cooperative Program with University of Wisconsin-Milwaukee

Advisers — Patricia A. Terry, assistant professor and coordinator; John Katers, assistant professor.

Engineers are professional people who apply mathematics, chemistry, physics, and engineering sciences to the study and design of systems for human use. Specific engineering fields include aerospace, chemical, civil and environmental, electrical and computer, industrial, mechanical, materials, petroleum and nuclear.

UW-Green Bay co-sponsors two programs with the University of Wisconsin-Milwaukee for students who seek careers in engineering.

Engineering and NEW Program

UW-Green Bay co-sponsors a joint program with UW-Milwaukee called the Northeastern Wisconsin (NEW) Engineering Program, which allows students to begin their engineering studies at UW-Green Bay and complete them in the College of Engineering and Applied Sciences at UW-Milwaukee. Engineering and many general education courses at UW-Green Bay are recognized as equivalent to courses at UW-M. Students who begin in engineering at UW-Green Bay and meet eligibility requirements are considered for admission into upper-level studies at UW-M on the same basis as students who began at UW-M.

UW-Milwaukee offers engineering degrees in civil/environmental, electrical, industrial, materials and mechanical engineering. Information on each of the majors can be found on the UW-M website at www.caee.uwm.edu/.

Engineering students may also apply for transfer to engineering programs at UW-Madison, UW-Platteville, Marquette University and Milwaukee School of Engineering in the state of Wisconsin or any other program outside of the state. It is important for all engineering students to contact an engineering advisor at UW-Green Bay in their freshman year.

Dual Degree Program

UW-Green Bay and UW-Milwaukee also offer a Dual Degree Program in environmental science and environmental engineering. Under this program a student completes three years of study in the physical systems emphasis of 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 advisor 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 352-105 Expository Writing 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 advisors listed above.

Requirements for the Major

All engineering and dual degree majors must take:

225-211 Principles of Chemistry I, 3 credits
225-212 Principles of Chemistry II, 5 credits
325-201 Engineering Materials, 4 credits
325-313 Mechanics I, 3 credits
325-314 Mechanics II, 3 credits (not required in materials engineering)
352-100 College Writing, 3 credits (see adviser)
600-202 Calculus and Analytic Geometry I, 4 credits
600-203 Calculus and Analytic Geometry II, 4 credits
600-209 Multivariate Calculus, 4 credits
754-201 Principles of Physics I, 5 credits
754-202 Principles of Physics II, 5 credits

Additional requirement in civil, mechanical and industrial engineering:

325-105 Engineering Graphics, 3 credits

See an adviser for additional requirements in chemical, nuclear, petroleum and aerospace engineering.
English

Disciplinary Major or Minor:

Professors — Elmer Havens (emeritus), Walter Herrscher (chairperson), Michael Murphy.
Associate Professors — Brian Sutton, Denise Sweet.
Assistant Professors — Aaron Haynie, Catherine Hanze, Tom Williams.

Courses in English develop students' understanding of important works of American and English literature, give them awareness of — and appreciation for — our cultural heritage, provide them with historical and theoretical perspectives and deepen their insight into their own experience. Inherent in achieving these aims is the development of students' ability to express their ideas orally and in writing and to use research skills. In addition, the English program also offers courses in the writing of poetry and fiction, and English majors may choose an emphasis in creative writing.

Students study English 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 personnel work, public relations, business management, journalism, free-lance writing, publishing, and many other fields requiring a strong liberal arts background and communication skills.

Students majoring in English must have an interdisciplinary minor. Students often select humanistic studies and communication and the arts, but may choose human development, social change and development, or other appropriate programs. Students desiring teacher preparation in English must combine their studies in English with the professional program in education.

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

Requirements for the Major

Areas of Emphasis

Students complete requirements in either the Literature or Creative Writing emphasis.

- **Literature**

  Supporting Courses, 9-12 credits

  One of these:

  352-105 Expository Writing, 3 credits (waived for qualified students)
  352-228 Writing About Education, 3 credits (waived for qualified students)

  Choose minimum of 9 credits:

  351-104 Introduction to Literature, 3 credits
  351-206 Women in Literature, 3 credits
  351-212 Introduction to Creative Writing: Fiction, 3 credits
  351-213 Introduction to Creative Writing: Poetry, 3 credits
  351-214 Introduction to English Literature I, 3 credits
  351-215 Introduction to English Literature II, 3 credits
  351-216 Introduction to American Literature I, 3 credits
  351-217 Introduction to American Literature II, 3 credits

  Upper-Level Courses, 24 credits

  351-323 Approaches to Literature, 3 credits
  351-338 World Literatures, 3 credits
  351-431 Shakespeare, 3 credits

  Minimum of 3 credits (waived for those who have taken 351-214) from any pre-1800 literature course, such as:

  351-315 The English Novel: 1700-1860, 3 credits
  351-335 Literary Eras: 18th Century England, 3 credits
  351-335 Literary Eras: English Renaissance, 3 credits

- **Creative Writing**

  Supporting Courses, 9-12 credits

  351-212 Introduction to Creative Writing: Fiction, 3 credits
  351-213 Introduction to Creative Writing: Poetry, 3 credits

  One of these:

  352-105 Expository Writing, 3 credits (waived for qualified students)
  352-228 Writing About Education, 3 credits (waived for qualified students)

  And: minimum of 3 credits of supporting literature courses (see list in literature emphasis)

  Upper-Level Courses, 24 credits

  351-431 Shakespeare, 3 credits

  Six to 12 credits in creative writing courses, such as:

  351-301 Intermediate Creative Writing, 3 credits
  351-302 Fiction Writing Workshop, 3 credits (may be repeated once)
  351-303 Poetry Writing Workshop, 3 credits (may be repeated once)
  351-498 Independent Study, 1-4 credits

  And: minimum of 9 credits of upper-level literature courses (see list in literature emphasis)

Requirements for the Minor

Supporting Courses, 9-12 credits

One of these:

  352-105 Expository Writing, 3 credits (waived for qualified students)
  352-228 Writing About Education, 3 credits (waived for qualified students)

  Choose minimum of 9 credits:

  351-104 Introduction to Literature, 3 credits
  351-206 Women in Literature, 3 credits
  351-212 Introduction to Creative Writing: Fiction, 3 credits
  351-213 Introduction to Creative Writing: Poetry, 3 credits
  351-214 Introduction to English Literature I, 3 credits
  351-215 Introduction to English Literature II, 3 credits
  351-216 Introduction to American Literature I, 3 credits
  351-217 Introduction to American Literature II, 3 credits

  Upper-Level Courses, 12 credits

  351-431 Shakespeare, 3 credits

  Minimum of 3 credits (waived for those who have taken 351-214) from any pre-1800 literature course (see list in major)

  Minimum of 6 to 9 additional upper-level credits (see list in major)
English as a Second Language

Certificate Program

Adviser — Barbara Law.

The certificate of completion in the teaching of English as a second language (ESL) is offered under the auspices of the interdisciplinary program in communication processes as an 18-credit 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 of completion is not equivalent to a four- or five-year teacher certification program for students who want to qualify as teachers in public elementary or secondary schools in Wisconsin. 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 ESL 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

English Fluency
Proof of fluency in oral and written English is required.

Required courses, 9 credits
242-160 Introduction to Language, 3 credits
242-323 Language and Society, 3 credits
302-315 Teaching English as a Second Language, 3 credits

Applications, 3 credits
One of these:
246-325 Applied Linguistics, 3 credits
246-327 Error Analysis and Treatment in Second Language Learning, 3 credits

Practicum Experience, 3 credits
246-497 Internship in Teaching English as a Second Language, 3 credits

Elective, 3 credits
One of these:
246-322 Modern Linguistics, 3 credits
246-325 Applied Linguistics, 3 credits
246-326 Modern Semantics, 3 credits
246-327 Error Analysis and Treatment in Second Language Learning, 3 credits

Other courses in linguistics or cultural context require consent of adviser.

Environmental Policy and Planning

Interdisciplinary Major or Minor

Associate Professors — Scott R. Furlong, David M. Lintig, Denise L. Scheberle (chairperson).

Environmental policy and planning is an environmental studies program based in the social sciences. 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 economics. The program provides students with a solid background in environmental policy, environmental law, environmental planning, 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, urban and regional 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 among different courses. Students may serve as interns in planning agencies in local governments, work with environmental organizations, or develop programs for sustainable communities. The two programs emphasize from which majors can choose are public policy and planning. While students must select one emphasis for their environmental policy and planning major, students are also encouraged to take courses in the other emphasis.

The major in environmental policy and planning consists of three sets of requirements: required supporting and analytical tool courses, an upper-level core of courses, and completion of courses within an area of emphasis. Other courses are required for majors. Students should discuss these recommended courses with their program advisers when establishing an academic plan.

The public policy emphasis focuses on environmental policy development and implementation; methods of policy analysis; and political, administrative, legal, and economic issues in environmental policy. It prepares students with a strong background in the public policy and administrative aspects of environmental studies. This emphasis prepares students for employment in the public, nonprofit, and private market sectors as environmental policy analysts, specialists in public information, environmental management, government relations, and related careers, as well as for graduate work in environmental studies, public policy, public affairs, administration, and law.

The planning emphasis focuses on planning theory and methods, techniques in geographic information systems, environmental impact analysis, land use, and economic issues in environmental policy and planning. Students interested in developing skills in the planning and development of land at the community and regional levels, and in the economic issues of environmental policy and planning, may want to select this emphasis. It helps prepare students for careers and graduate work in environmental planning, urban and regional planning, community-based environmental management, geography, and related fields.

A minor in environmental policy and planning is similar to the major in developing knowledge and skills in planning, decision-making, public policy, environmental sciences, 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 sciences, public administration, political science, economics, urban and regional studies, social change and development, or a number of other programs.
Considering a Double Major or a Major and a Minor?
Some students may want to consider a double major in environmental policy and planning and public administration. With careful planning, environmental policy and planning majors may need to take as few as four or five more upper-level courses to qualify for a second major in public administration. A double major in environmental policy and planning and political science or economics may also be easy to accomplish. A second 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. Students should contact a faculty advisor early in their academic careers for advice on these options.

Requirements for the Major

**Recommended Supporting Courses**
416-250 Displays of Geographic Information, 3 credits
835-215 Introduction to Public Administration, 3 credits

**Required Supporting Courses**

**Introductory Courses, 15-16 credits**
275-301 Foundations for Social Research, 3 credits
298-203 Micro Economic Analysis, 3 credits
362-102 Introduction to Environmental Science, 3 credits

And one of these:
779-101 American Government and Politics, 3 credits
835-202 Introduction to Public Policy, 3 credits

And one of these:
216-215 Introduction to Business Statistics, 3 credits
253-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

**Electives, 6-8 credits**
Complete two of the following four sets:
Set one:
204-202 Principles of Biology I, 4 credits

Set two:
204-203 Principles of Biology II, 4 credits

Set three, choose one course:
296-102 Introduction to Earth Science, 3 credits
296-202 Physical Geology, 4 credits

Set four, choose one course:
296-222 Ocean of Air: Weather and Climate, 3 credits
362-188 Issues in Biological Conservation, 3 credits
362-260 Energy and Society, 3 credits

**Upper-Level Courses, 15-16 credits**
835-501 Environmental Politics and Policy, 3 credits
835-322 Environmental Planning, 3 credits
835-378 Environmental Law, 3 credits

Choose 2 of these (6 credits):
362-302 Principles of Ecology, 4 credits
362-303 Conservation of Natural Resources, 3 credits
362-318 Pollution Control, 3 credits
362-330 Hydrology, 3 credits
362-342 Environmental Geology, 3 credits
362-405 Aquatic Ecology, 3 credits
362-454 Remote Sensing of the Environment, 3 credits
362-460 Resource Management Strategy, 3 credits
362-467 Ecological Methods and Analysis, 4 credits
362-469 Conservation Biology, 4 credits
835-356 Environmental Impact Analysis, 3 credits

Areas of Emphasis, 12 credits

**Public Policy**

Required, 3 credits:
835-408 Public Policy Analysis, 3 credits

Electives, choose three of these (9 credits):
778-410 Intergovernmental Relations, 3 credits
835-306 Regulatory Policy and Administration, 3 credits
835-314 Administrative Law, 3 credits
835-315 Public and Nonprofit Management, 3 credits
835-355 Environmental Impact Analysis, 3 credits
835-402 Environmental and Resource Economics, 3 credits
835-406 State and Local Government, 3 credits
835-461 Special Topics in Public and Environmental Affairs, 3 credits
835-497 Internship in Public and Environmental Affairs, 3 credits
(only 3 credits of internship can count toward the major)
951-331 Transportation and the City, 3 credits

**Planning**

Required, 3 credits:
835-350 Geographic Information Systems, 3 credits

Electives, choose three of these (9 credits):
416-351 Elements of Cartography, 3 credits
416-353 Air Photo Interpretation, 3 credits
835-323 Land Use Controls, 3 credits
835-356 Environmental Impact Analysis, 3 credits
835-402 Environmental and Resource Economics, 3 credits
835-450 Advanced Geographic Information Systems, 3 credits
835-452 Planning Theory and Methods, 3 credits
835-461 Special Topics in Public and Environmental Affairs, 3 credits
835-497 Internship in Public and Environmental Affairs, 3 credits
(only 3 credits of internship can count toward the major)
951-351 Transportation and the City, 3 credits
951-412 Urban and Regional Planning, 3 credits

Requirements for the Minor

**Required Supporting Courses, 12 credits**
362-102 Introduction to Environmental Science, 3 credits

Three of these:
298-203 Micro Economic Analysis, 3 credits
778-101 American Government and Politics, 3 credits
835-202 Introduction to Public Policy, 3 credits
835-215 Introduction to Public Administration, 3 credits

**Upper-Level Requirements, 15 credits**
835-301 Environmental Politics and Policy, 3 credits
835-322 Environmental Planning, 3 credits

Three of these:
835-306 Regulatory Policy and Administration, 3 credits
835-323 Land Use Controls, 3 credits
835-350 Geographic Information Systems, 3 credits
835-356 Environmental Impact Analysis, 3 credits
835-378 Environmental Law, 3 credits
835-402 Environmental and Resource Economics, 3 credits
835-408 Public Policy Analysis, 3 credits
951-412 Urban and Regional Planning, 3 credits
Environmental Science

Interdisciplinary Major or Minor


Associate Professors — Gregory J. Davis, Tian-You Hu, John M. Lyon, Jeffrey C. Nekola.


Lecturers — Therese E. Adisit, Gary C. Wardall.

Other Instructional Staff — Thomas C. Fredman, Gary A. Fawless, Mary C. Kobrel, Victoria Meffan, Jane M. Rank.

The UW-Green Bay major in environmental science is designed to guide students in their quest for knowledge and to help them analyze, understand, and solve environmental problems.

The program of study in 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 includes a social science component, enabling students to gain an understanding of environmental economic and policy issues. Field experiences, internships and practicums are emphasized.

Students majoring in environmental science at UW-Green Bay must select one of two emphases:

- **Ecology and biological resources management**: students pursue a course of study that will prepare them to address current issues and problems related to biological resources and their management such as preservation, restoration, and sustainable use.

- **Physical systems: technology and management**: students study the dynamic physical and chemical processes occurring in both natural and polluted environmental systems to provide the scientific and technological basis from which to understand, evaluate, and manage the impact of human activities.

This major is designed for students who are seriously interested in environmental concerns and studies. Students who plan to pursue this major should emphasize science and mathematics in their course work. Courses in biology, chemistry, earth science, physics, and mathematics provide the needed background.

While many universities are just beginning to recognize the need for environmental science programs, UW-Green Bay has more than 30 years of teaching and research experience in the field. Its program was one of the first in the nation. The interdisciplinary focus allows students to have a diverse education. They receive hands-on and practical learning experiences in both laboratory and 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 in industries, business, and engineering consulting firms. Numerous graduates have successfully completed master's and doctoral degrees.

Faculty members are actively addressing environmental problems and their solutions at the regional, national and international levels. This activity keeps them up to date on current trends and topics in the field. They provide opportunities for undergraduates to become involved in their research projects, where students can gain valuable knowledge and experience. Faculty members are highly involved in the students' education, both inside and outside of the classroom.

This major helps to develop the following skills and abilities: 1) formulate and interpret models that describe environmental processes; 2) facility with laboratory and field instrumentation, software for statistical analysis and modeling, taxonomic keys, and other practical skills; 3) design and implement research strategies and procedures to collect, organize, evaluate, and interpret data that characterize environmental systems; 4) characterize and analyze human impacts on the environment; 5) design and evaluate strategies, technologies and methods for remediation of degraded environments; 6) design and evaluate strategies for sustainable management of environmental systems; and 7) assess and manage data resources applicable to environmental processes and management.

Environmental science students have access to modern computer facilities which are continually upgraded. Computer software resources emphasizing geographic information systems (GIS) and mathematical modeling and statistical analysis tools are also available. In addition to general access, computer laboratories, students can also use two science-dedicated computer laboratories.

Students wishing to gain hands-on field experiences have access to the Center for Biodiversity which includes the Coflin Memorial Arboretum on campus, several natural areas in the region, the University Herbarium, and the Richter Natural History Museum. The latter two facilities will be moved to a new and expanded space by 2021. A variety of equipment is available for environmental measurements and monitoring.

Laboratory instrumentation encompasses student opportunities to perform chemical analyses which are important in environmental monitoring. Such instrumentation includes mass spectrometers, infrared and visible-ultraviolet spectrophotometers, nuclear magnetic resonance spectrometers, gas-liquid 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 begin to recognize their responsibility to help create and maintain a sustainable environment, 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, zoologist, 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, tracer, meteorologist, urban and regional planner, civil engineer, environmental planner, microbiologist/wastewater plant operator, conservation agent, natural resource specialist, wildlife manager, conservationist, zoologist.
Requirements for the Major

Areas of Emphasis
Each area of emphasis has its own supporting and upper-level required and elective courses.

Ecology and Biological Resources Management

Supporting Courses, 32-33 credits

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 600-260 Introductory Statistics, 4 credits

One of these:
- 296-202 Physical Geology, 4 credits
- 296-222 Ocean of Air: Weather and Climate, 3 credits

One of these:
- 298-203 Micro Economic Analysis, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-202 Introduction to Public Policy, 3 credits

One of these:
- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits

Upper-Level Courses, 32 credits

Required core courses, 17 credits:
- 362-302 Principles of Ecology, 4 credits
- 362-312 Mathematical Applications in Ecology, 2 credits
- 362-408 Aquatic Ecology, 3 credits
- 362-467 Ecological Methods and Analysis, 4 credits

One of these:
- 362-468 Ecological Applications, 4 credits
- 362-469 Conservation Biology, 4 credits

Field biology courses, 6 credits:
- 204-310 Plant Taxonomy, 3 credits
- 204-320 Field Botany, 3 credits
- 204-342 Ornithology, 3 credits
- 204-343 Mammalogy, 3 credits
- 204-353 Invertebrate Biology, 4 credits
- 204-355 Entomology, 3 credits
- 362-363 Plants and Forest Pathology, 3 credits

Physical environment courses, 6 credits:
- 225-300 Bio-Organo-Chemistry, 3 credits
- 225-301 Bio-Organo-Chemistry Laboratory, 1 credit
- 362-320 The Soil Environment, 4 credits
- 362-325 Regional Climatology, 3 credits
- 362-330 Hydrology, 3 credits
- 362-342 Environmental Geology, 3 credits
- 362-350 Meteorology, 3 credits
- 362-454 Remote Sensing of the Environment, 3 credits

Economics and policy courses, 3 credits:
- 298-402 Environmental and Resource Economics, 3 credits
- 835-301 Environmental Politics and Policy, 3 credits
- 835-378 Environmental Law, 3 credits

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.

Physical Systems: Technology and Management

Required Supporting Courses, 41 credits

- 204-202 Principles of Biology I, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 296-202 Physical Geology, 4 credits

Upper-Level Courses, 30 credits

Required, 16 credits:
- 362-305 Environmental Systems, 3 credits
- 362-318 Pollution Control, 3 credits
- 362-407 Modeling of Environmental Systems, 4 credits
- 362-454 Remote Sensing of the Environment, 3 credits
- 362-460 Resource Management Strategy, 3 credits

Choose at least 11 credits:
- 362-302 Principles of Ecology, 4 credits
- 362-320 The Soil Environment, 4 credits
- 362-325 Regional Climatology, 3 credits
- 362-330 Hydrology, 3 credits
- 362-335 Water and Waste Water Treatment, 3 credits
- 362-342 Environmental Geology, 3 credits
- 362-350 Meteorology, 3 credits
- 362-363 Plants and Forest Pathology, 3 credits
- 362-405 Aquatic Ecology, 3 credits
- 362-415 Solar and Alternate Energy Systems, 3 credits
- 362-432 Hydrogeology, 3 credits
- 362-434 Environmental Chemistry, 3 credits
- 362-435 Environmental Chemistry Laboratory, 1 credit
- 362-467 Ecological Methods and Analysis, 4 credits
- 362-468 Ecological Applications, 4 credits
- 362-469 Conservation Biology, 4 credits
- 362-492 Practicum in Environmental Science, 1-4 credits
- 362-497 Internship, 1-3 credits

One of these:
- 298-402 Environmental and Resource Economics, 3 credits
- 835-301 Environmental Politics and Policy, 3 credits
- 835-378 Environmental Law, 3 credits

Requirements for the Minor

The application of scientific principles to resource management form the core of the minor. An environmental science minor is particularly appropriate in combination with a major in one of the sciences or mathematics.

Supporting Courses, 7 credits

- 362-102 Introduction to Environmental Science, 3 credits
- 600-260 Introductory Statistics, 4 credits

Additional courses may be necessary to satisfy prerequisites for the upper-level elective courses that a student selects.

Upper-Level Courses, 12 credits

- 362-303 Conservation of Natural Resources, 3 credits

Nine additional credits in upper-level environmental science (362 prefix) courses.
French

Disciplinary Major or Minor

Professor — Kenneth Fleurent (adviser).
Associate Professor — E. Nicole Meyer (coordinator and adviser).

The French 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. French is a major language in over 40 countries on five continents. It is one of the two most important diplomatic languages, the language of business in a large part of the world, and an important research language for many disciplines.

The broad training that is part of a program in French 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 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 program also offers students the opportunity to earn degree credits while studying abroad. UW-Green Bay co-sponsors a semester program in Paris every spring and, with faculty approval, accepts credits from numerous other study-abroad programs. On campus, students can have frequent contact with authentic cultural materials outside the classroom via the Internet, the latest multimedia equipment, and international television and radio reception.

French majors will also choose an interdisciplinary minor. Those interested in a broad humanities background often choose the interdisciplinary minor in humanities studies. Other interdisciplinary programs in, for example, business, the social sciences, education, or the arts, combine with the French major to form a strong, coherent academic program.

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

Students who begin their French studies at UW-Green Bay should enroll in French 101. The normal sequence of language courses is: 101, Introduction to French I; 102, Introduction to French II; 201, Intermediate French I; 202, Intermediate French II; 225, Intermediate Conversation and Composition; and 325, Advanced Conversation and Composition.

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.

Retrospective or Advanced Placement Credit

Students who have taken French in high school or who have acquired a knowledge of the language elsewhere may earn up to 14 additional credits for their previous French study by completing a course beyond French 101. With a grade of "B" or better, credit will be given for all French courses 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, a student with four years of high school French who completes 397-225, Intermediate Conversation and Composition, with a grade of "B" will receive 14 credits for French 101, 102, 201, and 202 in addition to the three credits for French 225; a student who completes the course with a "C" receives seven retroactive credits in addition to the three credits for the course.

Requirements for the Major

Supporting Courses, 6 credits

397-202 Intermediate French Language II, 3 credits (can be earned through retroactive credit)
397-225 Intermediate French Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits

397-323 Advanced Conversation and Composition, 3 credits
397-329 Representative French Authors, 3 credits

One of these:
397-354 France Today, 3 credits
397-355 Le Monde Francophone, 3 credits

Choose minimum of 3 credits:
397-329 Representative French Authors, 3 credits
397-333 French Literary Themes, 3 credits
397-498 Independent Study (in literature; with adviser’s consent), 3 credits

Choose minimum of 12 credits:
397-329 Representative French Authors, 3 credits
397-333 French Literary Themes, 3 credits
397-345 Advanced French Grammar and Translation, 3 credits
397-346 French Phonetics and Public Speaking, 3 credits
397-354 France Today, 3 credits
397-355 Le Monde Francophone, 3 credits
397-366 Travel Course: Paris, 2-3 credits
397-367 Business French, 3 credits
397-368 Business French, 3 credits
397-498 Independent Study (in advanced language, literature, or cultural studies; with adviser’s consent)
493-376 Cultural Conflict in French Canada, 3 credits

(Some upper-level courses may be repeated for credit when course content varies. See adviser.)

Requirements for the Minor

Supporting Courses, 6 credits

397-202 Intermediate French Language II, 3 credits (can be earned through retroactive credit)
397-225 Intermediate French Conversation and Composition, 3 credits

Upper-Level Courses, 12 credits

397-329 Advanced French Conversation and Composition, 3 credits
397-329 Representative French Authors, 3 credits

Choose minimum of two of these:
397-329 Representative French Authors, 3 credits
397-333 French Literary Themes, 3 credits
397-345 Advanced French Grammar and Translation, 3 credits
397-346 French Phonetics and Public Speaking, 3 credits
397-354 France Today, 3 credits
397-355 Le Monde Francophone, 3 credits
397-366 Travel Course: Paris, 2-3 credits
397-367 Business French, 3 credits
397-498 Independent Study (in advanced language, literature, or cultural studies; with adviser’s consent)
493-376 Cultural Conflict in French Canada, 3 credits

(Some upper-level courses may be repeated for credit when course content varies. See adviser.)
Geography

Disciplinary Minor

Assistant Professor — Marcelo Cruz.

Geography is the systematic study of the location, variations 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.

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, political science, 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.

Geography minors combine their studies with an interdisciplinary major. Depending on their career goals, students might effectively combine geography with programs in business administration, science and environmental change, urban and regional studies, public administration, environmental policy and planning, social change and development, 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). UW-Green Bay has a state-of-the-art GIS laboratory. Also, students are encouraged to gain practical experience through internships with agencies and organizations in the region and through practical course projects.

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

Requirements for the Minor

Supporting Courses, 6 credits required

- 416-250 Displays of Geographic Information, 3 credits

One of these:

- 296-202 Physical Geology, 4 credits
- 416-102 World Regions and Concepts: A Geographic Analysis, 3 credits
- 416-202 Introduction to Cultural Geography, 3 credits

Upper-Level Courses, 12 credits required

Courses selected must come from at least two of the following areas:

Physical Geography:

- 416-320 Landform Geography: Topics and Regions, 3 credits
- 416-325 Regional Climatology, 3 credits
- 416-421 Soils and Geology of Wisconsin Field Trip, 2 credits
- 416-470 Quaternary Geology, 3 credits

Cultural Geography:

- 416-341 The City and Its Regional Context, 3 credits
- 416-342 Settlement Geography, 3 credits

Regional Geography:

- 416-370 Geography of South America, 3 credits
- 416-371 Geography of the United States and Canada, 3 credits
- 416-377 Analysis of Northern Lands, 3 credits

Geographic Techniques:

- 362-454 Remote Sensing of the Environment, 3 credits
- 416-350 Geographic Information Systems, 3 credits
- 416-351 Elements of Cartography, 3 credits
- 416-353 Air Photo Interpretation, 3 credits
- 416-450 Advanced Geographic Information Systems, 3 credits

Internships and independent study opportunities are available with faculty approval.
German

Disciplinary Major or Minor

Associate Professor — Jennifer Ham (Modern Languages chairperson);
Assistant Professor — David Couey.

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 foreign 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 to participate in the summer travel course in Konstanz, 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, computers, and international television reception to support students’ language acquisition and cultural awareness.

Students majoring in German will also choose an interdisciplinary minor. Most German students interested in the humanities usually choose the interdisciplinary program in humanistic studies; students interested in teaching may choose an education minor; those interested in business often choose business administration; and those interested in communication fields or creative fields usually choose a minor in communication and the arts. Depending on their personal preferences and career goals, students may find other interdisciplinary programs appropriate, such as human development or social change and development.

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, 201, 202 or 225 — by counting a year of high school work as equivalent to a semester of college work, or they should consult the German adviser.

Retrospective or Advanced Placement Credit

Students who have taken German in high school or who have acquired a knowledge of German elsewhere may earn up to 14 additional credits for their previous German study by completing a German course beyond the 101 level. With a grade of “B” or better, German credit will be given for all German courses 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 225, Conversation and Composition, with a grade of “B” will receive 14 retroactive credits for German 101, 102, 201, and 225 in addition to the three credits for German 225; students who complete the course with a “C” will receive seven retroactive credits for German 101, 102, 201, and 202 in addition to the three credits for German 225.

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

Requirements for the Major

Supporting Courses, 6 credits
424-202 Intermediate German Language II, 3 credits
424-225 Intermediate German Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits
424-325 Advanced German Conversation and Composition, 3 credits

Choose minimum of 6 credits:
424-355 Deutsche Kultur und Landeskunde, 3 credits
424-356 German Culture, 3 credits
424-362 Travel Course: Germany, 3 credits
424-458 Study Abroad: Germany, 6-15 credits

Choose minimum of 6 credits:
424-329 Representative German Authors, 3 credits
424-333 German Literary Themes, 3 credits
424-335 German Literary Eras, 3 credits
424-350 Major German Drama, 3 credits
424-351 Major German Prose Fiction, 3 credits
424-352 Major German Poetry, 3 credits

Choose minimum of 9 credits from courses listed above or:
424-345 Advanced German Grammar, 3 credits
424-357 German Cinema, 3 credits
424-420 Business German, 3 credits
424-425 German Translation Studies, 3 credits
424-498 Independent Study, 3 credits

(Some upper level courses may be repeated for credit when course content varies. See adviser)

Requirements for the Minor

Supporting Courses, 6 credits
424-202 Intermediate German Language II, 3 credits
424-225 Intermediate German Conversation and Composition, 3 credits

Upper-Level Courses, 12 credits
424-325 Advanced German Conversation and Composition, 3 credits
424-329 Representative German Authors, 3 credits

Choose minimum of 6 credits:
424-333 German Literary Themes, 3 credits
424-335 German Literary Eras, 3 credits
424-337 German Literary Eras, 3 credits
424-350 Major German Drama, 3 credits
424-351 Major German Prose Fiction, 3 credits
424-352 Major German Poetry, 3 credits
424-355 Deutsche Kultur und Landeskunde, 3 credits
424-356 German Culture, 3 credits
424-357 German Cinema, 3 credits
424-361 Travel Course: Germany, 3 credits
424-420 Business German, 3 credits
424-425 German Translation Studies, 3 credits
History

Disciplinary Major or Minor

Professors — David H. Galaty, Harvey J. Kaye, Craig A. Lockard, Joyce E. Salsbury (chairperson).
Associate Professors — Victoria Goff, Peter J. Kellogg, Jerrold C. Rodeesch.
Assistant Professors — Gregory Aldrete, Andrew Kersten.

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, its European and Non-Western roots. 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, 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 and guiding principles, especially interdisciplinarity and practical problem-solving. History is interdisciplinary as it 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, diplomatic, 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 majoring in history must select an interdisciplinary minor, which is an important part of UW-Green Bay’s academic program. For advice on appropriate interdisciplinary minors to accompany the history major, consult with faculty advisors.

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

Requirements for the Major

Supporting Courses, 15 credits
448-100 History of the Modern World, 3 credits
448-205 History of the United States, 1600 to 1865, 3 credits
448-206 History of the United States, 1865 to Present, 3 credits
493-101 Foundations of Western Culture I, 3 credits
493-102 Foundations of Western Culture II, 3 credits

Electives (suggested):
448-207 Roots of Black America, 3 credits
448-208 The Development of Modern Science in Western Society, 3 credits
448-209 U.S. Immigration History, 3 credits
448-230 Traditional Asian Civilization, 3 credits
448-275 The Vietnam War in Historical Perspective, 3 credits
448-298 Independent Study, 1-4 credits
493-226 American Indian Studies: Wisconsin American Indian Nations, 3 credits

Upper-Level Courses, 24 credits

Students are required to take the history seminar, two courses from Category I and II, and one course from Category III. Students should select the remaining six credits based on academic and professional need or interest.

Required, 3 credits:
448-480 Seminar in History, 3 credits

Category I, American History: 6 credits minimum
Two of these:
448-302 Problems in American Thought, 3 credits
448-310 American Colonial History, 3 credits
448-311 History of Wisconsin, 3 credits
448-322 Economic and Business History of the U.S., 3 credits
448-340 Topics in African American History, 3 credits
448-380 Women in the United States: Historical Perspectives, 3 credits
448-401 The Transformation of American Schools, 3 credits
448-402 Political and Social History of the Modern U.S. I, 3 credits
448-403 Political and Social History of the Modern U.S. II, 3 credits
448-405 History of Technological Change, 3 credits
493-374 Wisconsin American Indian Ethnography, 3 credits

Category II, European History: 6 credits minimum
Two of these:
448-301 The Middle Ages, 3 credits
448-306 Problems in European Thought, 3 credits
448-309 History of Science in Modern Times, 3 credits
448-315 Rise and Fall of the Soviet Empire, 3 credits
448-316 Topics in Modern European History, 3 credits
448-350 Social History of Europe, 3 credits
448-360 Ancient Greece, 3 credits
448-361 Ancient Rome, 3 credits
448-404 History of Modern Europe, 3 credits
448-460 Topics in Ancient History, 3 credits
493-335 Perspectives on Human Values: The Medieval World, 3 credits
493-410 The Christian Heritage: Birth of Christ to 1600, 3 credits

Category III, Non-Western History: 3 credits minimum
One of these:
448-317 History of the Yucatan Maya, 3 credits
448-352 History of Modern China, 3 credits
448-354 History of Modern Southeast Asia, 3 credits
448-355 History of Africa, 3 credits
448-358 Aspects of Latin American History, 3 credits
875-333 Social Change in a Selected Area: East Asia, 3 credits

Recommended Courses:
448-478 Distinction in History, 3 credits
448-497 Internship, 3-12 credits
448-498 Independent Study, 1-4 credits
875-361 Historical Perspectives on Social Change, 3 credits

Requirements for the Minor

Supporting Courses, 6 credits
Required, 3 credits:
448-100 History of the Modern World, 3 credits
448-205 History of the United States, 1600 to 1865, 3 credits
448-206 History of the United States, 1865 to Present, 3 credits

Choose remaining 3 credits from the required courses or one of these:
493-101 Foundations of Western Culture I, 3 credits
493-102 Foundations of Western Culture II, 3 credits

Upper-Level Courses, 12 credits

Choose a minimum of 12 credits from the upper-level courses listed under the major. Students are required to take two courses from Category I, and one course from both Category II and III. The Seminar in History is recommended, but not required.
Human Biology

Interdisciplinary Major or Minor

Professor — Richard J. Stevens.
Associate Professors — Warren V. Johnson, Joseph A. Mannino, James C. Marker, Donna Ritch (chairperson).
Assistant Professors — Angela Bauer-Dantoine, Brian Merkel, Debra Pearson, Uwe Pott.
Lecturer — Karen Lacey.

Human biology focuses on the study of the biological, physiological, anthropological, and behavioral aspects of the human ability to adapt to the environment. The major has an extensive range of offerings with core courses emphasizing human structure and function, growth patterns, development and aging, genetics, nutrition, diversity, and human evolution.

Students who major in human biology gain extensive skills within the laboratory environment, including biological, physiological, molecular, and statistical analyses. The laboratories host state-of-the-art instruments and equipment for students to gain valuable experience. Participation in faculty research projects or internships is strongly encouraged.

Human biology is appropriate for students interested in the health sciences, medicine, dentistry, physiology, exercise physiology, nutrition or biology education. Most premedical and pre-dental students choose human biology as their interdisciplinary major. Those interested in pharmaceutical sales, hospital or nursing home administration, or other health-related professions should consider a human biology minor.

All human biology majors complete an area of emphasis within the program. There are five areas of emphasis within the major:

- **General human biology** is appropriate for students seeking careers in secondary science education, industrial, managerial, or sales positions in biological or health-related industries.
- **Health science** provides preparation for medical, dental or other health related professional schools or for graduate programs in biological or medical sciences.
- **Exercise science** provides background for careers in exercise physiology, physical therapy, occupational therapy, or athletic training.
- **Cytochemistry** is offered in affiliation with schools of cytochemistry at UW-Madison, the Marshfield Clinic and the Mayo Clinic. Cytochemistry is the microscopic study of cells primarily for detection of pre-cancer or cancer. This emphasis leads to a major in human biology and professional certification as a registered cytotechnologist.
- **Nutritional science/dietetics** provides a focus on the biological and physiological principles of nutrition. The emphasis is approved as a Didactic Program in Dietetics by the Commission on Accreditation/Approval for Dietetic Education of the American Dietetic Association (ADA). Students who successfully complete this program may apply for entry into a dietetic practice program, such as the Dietetic Internship, which is required to become a registered dietitian. Dietitians provide food and nutritional services with a focus on health promotion and disease prevention. Employment opportunities include education, the food industry, food service management systems, community agencies, and health care organizations such as hospitals, clinics, and nursing homes.

**Requirements for the Major**

**Supporting Courses**

**Common courses required for all emphasis, 11 credits:**

- 204-202 Principles of Biology I, 4 credits
- 352-106 Expository Writing, 3 credits (waived for students with an ACT English score of 32 or higher)
- 600-260 Introductory Statistics, 4 credits

**Additional supporting courses: General Human Biology, 12-23 credits**

**Select one:**

- 204-203 Principles of Biology II, 4 credits
- 478-204 Anatomy and Physiology, 5 credits

**Select:**

- 225-108 General Chemistry, 5 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits

**Select one:**

- Oral communication (e.g., 246-133 Fundamentals of Public Address)
- Literature (e.g., 351-104 Introduction to Literature)
- Foreign language (one year at the college level)

**Additional supporting courses: Health Science, 31-36 credits**

- 204-203 Principles of Biology II, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits

**Select one:**

- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits

**Select:**

- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits

**Select one:**

- Oral communication (e.g., 246-133 Fundamentals of Public Address)
- Literature (e.g., 351-104 Introduction to Literature)
- Foreign language (one year at the college level)

**Additional supporting courses: Exercise Science, 16-26 credits**

- 478-204 Anatomy and Physiology, 3 credits
- 742-116 First Aid and Emergency Care Procedures, 3 credits

**Select:**

- 225-108 General Chemistry, 5 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits

**Select one:**

- Oral communication (e.g., 246-133 Fundamentals of Public Address)
- Literature (e.g., 351-104 Introduction to Literature)
- Foreign language (one year at the college level)

**Additional supporting courses: Cytochemistry, 21 credits**

- 204-203 Principles of Biology II, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 351-104 Introduction to Literature, 3 credits

**Select one:**

- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits

**Additional supporting courses: Nutritional Science/Dietetics, 24-29 credits**

- 246-133 Fundamentals of Public Address, 3 credits
- 298-202 Macro Economic Analysis, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 694-201 Dietetics and Related Professions, 1 credit
- 694-212 Science of Food Preparation, 4 credits
Select one:
481-210 Introduction to Human Development, 3 credits
820-102 Introduction to Psychology, 3 credits

Select:
225-198 General Chemistry, 5 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits

Areas of Emphasis
Students must complete requirements in one of the following areas of emphasis.

- **General Human Biology**

**Upper-Level Courses, 30-31 credits**
Select one course from three of the following four areas, 9-10 credits:
- Genetics:
  204-303 Genetics, 3 credits
  478-310 Human Genetics, 3 credits
- Human Physiology:
  478-350 Principles of Exercise Physiology, 4 credits
  478-402 Human Physiology, 3 credits
- Nutrition:
  694-300 Human Nutrition, 3 credits
  694-302 Nutrition and Culture, 3 credits
- Evolution:
  478-342 Human Evolution, 3 credits
  478-364 Human Variability, 3 credits

**General Emphasis Electives: 21 credits**
Select pre-approved, upper-level courses for this emphasis from the list of electives available on STAR (the computer-assisted advising program). Or choose electives with assistance and approval of a faculty adviser.

- **Health Science**

**Upper-Level Courses, 30-31 credits**
Select three courses, 9 credits:
- 204-303 Genetics, 3 credits
- 478-342 Human Evolution or 478-364 Human Variability, 3 credits
- 478-402 Human Physiology, 3 credits
- 694-300 Human Nutrition, 3 credits

**Required, 12 credits**
- 204-302 Principles of Microbiology, 4 credits
- 225-302 Organic Chemistry I, 3 credits
- 225-303 Organic Chemistry II, 3 credits
- 225-304 Organic Chemistry Laboratory I, 1 credit
- 225-305 Organic Chemistry Laboratory II, 1 credit

- **Select one course, 3-4 credits:**
  - 225-311 Analytical Chemistry, 4 credits
  - 225-330 Biochemistry, 3 credits

**Health Science Electives: 6 credits**
Select pre-approved, upper-level courses for this emphasis from the list of electives available on STAR (the computer-assisted advising program). Or choose electives with assistance and approval of a faculty adviser.

- **Exercise Science**

**Upper-Level Courses, 30 credits**
Required, 21 credits:
- 478-333 Principles of Sports Physiology, 3 credits
- 478-350 Principles of Exercise Physiology, 4 credits
- 478-351 Kinesiology, 4 credits
- 694-300 Human Nutrition, 3 credits
- 694-302 Human Biochemistry, 4 credits
- 742-406 Prevention, Treatment of Athletic Injuries, 3 credits

Select one course, 3 credits:
- 478-342 Human Evolution, 3 credits
- 478-364 Human Variability, 3 credits

**Exercise Science Electives: 6 credits**
Select pre-approved, upper-level courses for this emphasis from the list of electives available on STAR (the computer-assisted advising program). Or choose electives with assistance and approval of a faculty adviser.

- **Cytotechnology**

UW-Green Bay is affiliated with three schools of cytotechnology: Mayo School of Cytotechnology, Rochester, Minnesota; Marshfield Clinic School of Cytotechnology, Marshfield, Wisconsin; and the Laboratory of Hygiene, 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 prepared for professional certification.

**Upper-Level Courses, 47 credits**
Select one course from three of the following four areas, 9 credits:
- Genetics:
  - 204-303 Genetics, 3 credits
  - 478-310 Human Genetics, 3 credits
- Human Physiology:
  - 478-402 Human Physiology, 3 credits
- Nutrition:
  - 694-300 Human Nutrition, 3 credits
  - 694-302 Nutrition and Culture, 3 credits
- Evolution:
  - 478-342 Human Evolution, 3 credits
  - 478-364 Human Variability, 3 credits

**Cytotechnology Electives, 6 credits:**
Additional upper-level courses in human biology, biology and chemistry will depend upon the student’s career objectives and choice of clinical facility. These courses should be selected with the help of a faculty adviser and submitted via change form to the Registrar’s Office.

**Cytotechnology Internship, 32 credits:**
478-497 Internship
Some students choose to earn clinical credits after graduation from UW-Green Bay. In that case, additional upper-level elective credits are required. Consult an adviser.

- **Nutritional Science/Dietetics**

**Upper-Level Courses, 40 credits**
- 204-302 Principles of Microbiology, 4 credits
- 478-310 Human Genetics, 3 credits
- 694-300 Human Nutrition, 3 credits
- 694-312 Quantity Food Production and Service, 4 credits
- 694-350 Life Cycle Nutrition, 3 credits
- 694-402 Management in Dietetic Practice, 3 credits
- 694-421 Community Nutrition, 4 credits
- 694-427 Advanced Nutrition and Metabolism, 3 credits
- 694-485 Medical Nutrition Therapy I, 3 credits
- 694-486 Medical Nutrition Therapy II, 3 credits

Select one:
- 478-350 Principles of Exercise Physiology, 4 credits
- 478-402 Human Physiology, 3 credits

Select:
- 694-327 Nutritional Biochemistry, 4 credits
- 225-300/301 Bioorganic Chemistry and Laboratory, 4 credits
- 225-330/331 Biochemistry and Laboratory, 4 credits
Requirements for the Minor

Students complete requirements in one of the following areas of emphasis.

- **Human Biology**
  The interdisciplinary minor in human biology provides an overview of the field of human biology.

- **Supporting Courses, 8-9 credits**
  204-202 Principles of Biology I, 4 credits

- **One of these:**
  204-203 Principles of Biology II, 4 credits
  478-204 Anatomy and Physiology, 5 credits

- **Upper-Level Courses, 12-13 credits**
  Choose one course from each of the following four areas:
  - Genetics:
    204-303 Genetics, 3 credits
    478-310 Human Genetics, 3 credits
  - Human Physiology and Anatomy:
    478-350 Principles of Exercise Physiology, 4 credits
    478-402 Human Physiology, 3 credits
  - Nutrition:
    694-300 Human Nutrition, 3 credits
    694-302 Nutrition and Culture, 3 credits
  - Evolution:
    478-342 Human Evolution, 3 credits
    478-364 Human Variability, 3 credits

- **Applied Human Biology**
  Many students majoring in biology and chemistry desire a greater exposure to the interdisciplinary applications that apply science to solving biological and medical problems. This curriculum contains several laboratory courses that fulfill this need.

- **Supporting Courses, 19-20 credits**
  204-202 Principles of Biology I, 4 credits
  225-211 Principles of Chemistry I, 5 credits
  225-212 Principles of Chemistry II, 5 credits
  478-207 Laboratory Safety, 1 credit

- **One of these:**
  204-203 Principles of Biology II, 4 credits
  478-204 Anatomy and Physiology, 5 credits

- **Upper-Level Courses, 15 credits**
  Required, 7-8 credits:
  204-407 Molecular Biology, 3 credits
  204-408 Molecular Biology Laboratory, 1 credit
  OR
  225-330 Biochemistry, 3 credits
  225-331 Biochemistry Laboratory, 1 credit

- **One of these:**
  204-346 Comparative Physiology, 3 credits
  478-350 Principles of Exercise Physiology, 4 credits
  478-402 Human Physiology, 3 credits

- **Electives, 7-8 credits**
  Select pre-approved, upper-level courses for this emphasis from the list of electives available on STAR (the computer-assisted advising program). Or choose electives with assistance and approval of a faculty advisor.

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Human Development

**Interdisciplinary Major or Minor**

Professors — Fergus P. Hughes (chairperson), Richard D. Logan, Lloyd D. Noppe, Dean Rodheaver.

Associate Professors — Dennis N. Lorenz, Tracy L. Luchetta, Ilene C. Noppe, Timothy J. Sewall.

Assistant Professors — Jane D. Bock, Regan Gurung, Karin Suessner.

Human development is the study of the human life span from conception to death. It provides a basic understanding of the changes that occur throughout the years, and examines the factors that promote healthy development as well as variations from the norm. Consistent with the interdisciplinary focus of The Green Bay Idea of an Educated Person, human development is an interdisciplinary, liberal arts program in that it examines the contributions of psychologists, biologists, anthropologists, and sociologists to our understanding of the life cycle.

Human development is a suitable major or minor for students who plan any type of career that involves working with people and helping to solve human problems, and students base their selection of upper-level electives on their particular career goals. Some have a broad interest in careers in human resources, human services, and health-related fields, but not specifically in the fields of counseling or psychology. They select courses, therefore, that will prepare them for graduate work in human development, child development, and similar programs. Career possibilities are varied, and include youth services worker, adoption agency official, children’s librarian, career consultant, student affairs dean, and nursing home administrator. Many of these jobs require master’s degrees or doctoral-level preparation.

Other human development majors hope eventually to practice counseling or clinical psychology. Such careers require a master’s or doctoral degree, and students with these interests should plan their programs carefully with their advisors in order to be prepared to apply to graduate school programs. Admission to graduate school is highly selective and requires very strong academic credentials. It is advisable that students with career goals of this type combine human development with a minor or second major in psychology.

Still others are interested in studying development within the context of the family, and they choose courses that will prepare them for careers such as parent educator, human services worker, family therapist or counselor, or childbirth instructor. Their undergraduate program is seen as preparation for graduate work in family and human development, marriage and family therapy, developmental psychology, and related areas. Some jobs require master’s degrees or doctoral-level preparation.

Program advisers can help students tailor their choice of electives to their individual career goals. In fact, an adviser can help to put together a program with any number of possibilities. For example, a human development major might also be combined with minors in women’s studies, American Indian studies, sociology, anthropology, business, or communication processes.

One particular advantage of the human development program is the opportunity for undergraduate students to gain practical experience, and many work with faculty on independent research projects. Human development strives to educate students who are committed to and engaged in their communities. Therefore, students are strongly encouraged to complete an internship in an approved community agency. Such experiences are beneficial when entering the job market or seeking admission to graduate and professional schools.
Special Facilities
The human development program maintains the University’s Social Science Quantitative Suite, which includes a laboratory teaching room and six experimental project rooms as well as storage areas for social science research. In addition, human development maintains the Animal Physiology Laboratory, and houses an extensive collection of psychological and educational tests for classroom, community, and scholarly use.

Human Development Minor
The human development minor adds a broad, interdisciplinary component to a traditional social science major. For students who major in professional programs such as education, social work, or business administration, the minor adds a strong, liberal arts foundation to their programs of study. Finally, the minor is an appropriate complement to other interdisciplinary majors such as human biology, communication and the arts, or social change and development.

Requirements for the Major
Supporting Courses, 14 credits
478-102 Introduction to Human Biology, 3 credits
481-240 Introductory Human Development Seminar, 1 credit

One of these:
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

One of these:
481-210 Introduction to Human Development, 3 credits
820-102 Introduction to Psychology, 3 credits

One of these:
156-100 Varieties of World Culture, 3 credits
900-202 Introduction to Sociology, 3 credits

Upper-Level Requirements, 26 credits
481-340 Intermediate Human Development Seminar, 1 credit
481-440 Human Development Senior Seminar, 1 credit

Life Span Core Courses, 9 credits:
481-331 Infant’s and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
481-343 Adulthood and Aging, 3 credits

Biological Course, choose 3 credits:
478-310 Human Genetics, 3 credits
478-313 Brain Functions in Human Behavior, 3 credits
478-324 The Biology of Women, 3 credits
478-342 Human Evolution, 3 credits
478-364 Human Variability, 3 credits
478-402 Human Physiology, 3 credits
481-350 Developmental Psychobiology, 3 credits (strongly recommended)
820-308 Physiological Psychology, 3 credits

Electives:
Students choose 12 additional upper-level credits from the following list, depending on their particular career interests. A human development advisor can help in the selection of appropriate courses, and may allow the substitution of upper-level courses from other academic units if it seems appropriate to do so.
481-334 Play and Creative Activities in Childhood, 3 credits
481-336 Gender Across the Life Span, 3 credits
481-342 Cross-Cultural Human Development, 3 credits
481-344 Dying, Death, and Loss, 3 credits
481-345 Human Sexuality, 3 credits
481-346 Culture, Development and Health, 3 credits
481-350 Developmental Psychobiology, 3 credits
481-420 Tests and Measurements, 3 credits
481-424 The Development of Creative and Critical Thinking, 3 credits
481-429 Theories of Personality, 3 credits
481-435 Abnormal Behavior, 3 credits
481-438 Counseling Across the Life Span, 3 credits

One of these is encouraged, but may not count toward major requirements:
481-478 Distinction in Major, 3 credits
481-484 Senior Honors Project, 3 credits
481-497 Internship, 3 credits (in an approved agency)
481-498 Independent Study, 3 credits

Requirements for the Minor
Supporting Courses, 6 credits
One of these:
481-210 Introduction to Human Development, 3 credits
820-102 Introduction to Psychology, 3 credits

One of these:
156-100 Varieties of World Culture, 3 credits
478-102 Introduction to Human Biology, 3 credits
900-202 Introduction to Sociology, 3 credits

Upper-Level Courses, 12 credits
Students must select four human development courses at the 300- or 400-level. At least two of the four selections must come from the following core courses:
481-331 Infant’s and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
481-343 Adulthood and Aging, 3 credits
Humanistic Studies

Interdisciplinary Major or Minor

Professors — Howard Cohen, Kenneth Fleuret, David Galaty (chairperson), Emer Havens (emeritus), Walter Herrscher, Michael Murphy, Gilbert Null, Joyce Salisbury.

Associate Professors — Jennifer Ham, Peter Kellogg, E. Nicole Meyer, Cristina Ortiz, Jerrold Rodesch, Brian Sutton, Denise Sweet.

Assistant Professors — Gregory Aldrete, David Couey, Andrew Fiata, Aaron Hayne, Catherine Henze, Andrew Kersten, Hye-Kung Kim, Sonia Maruenda, Lisa Poupart, Ramon Soto-Crespo, Thomas Williams.

Lecturers — Karla Larson, Dianne Marlett, Linda Toomen, Carol Van Egeren.

Humanistic studies is an interdisciplinary program for the study of human values. Through examination of past and present works of literature, history, philosophy, religion, science, art, and music, students in humanistic studies explore how a variety of thinkers, writers, and artists have attempted to make sense of the world and their place in it and to give direction and purpose to their lives.

At the core of the curriculum in humanistic studies is a chronological sequence of courses called Perspectives on Human Values which explore works reflecting the nature, sources and results of human values in various historical periods. These interdisciplinary courses stress connections among history, philosophy, religion, music, literature, language, art, and science. Most courses in this program examine Western Civilization, but a significant portion of humanistic studies course offerings focuses on other cultures as well.

While the factual content of humanistic studies 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 both speech and writing; 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.

A program in humanistic studies complements other courses of study. It is a natural accompaniment to majors in human culture, philosophy, English, French, German or Spanish, as well as to minors in American Indian studies and women’s studies. Humanistic studies also complements majors or minors in such areas of study as business, the social sciences, the natural sciences, and the fine arts.

In conjunction with other courses of study, humanistic studies is an excellent preparation for many graduate programs in the humanities as well as in law, medicine or engineering. The general intellectual skills emphasized in humanistic studies courses and the flexibility and versatility they impart to graduates are well suited to success in today’s rapidly changing job market, where specific factual knowledge can quickly become outdated. The two most common career paths of humanistic studies majors are in the fields of education and business, but the skills acquired by humanistic studies students are applicable to nearly any career.

Requirements for the Major

All humanistic studies students are expected to:
— have completed two years of foreign language study at high school level
OR
— complete two semesters of foreign language study at college level
OR
— include two upper-level electives from modern culture studies as part of their 24-credit, upper-level program.

Supporting Courses, 9 credits

Introductory Course I, select one:
493-101 Foundations of Western Culture I, 3 credits
493-201 Introduction to Humanities I, 3 credits

Introductory Course II, select one:
493-102 Foundations of Western Culture II, 3 credits
493-202 Introduction to Humanities II, 3 credits

Elective, select one:
493-213 Ethnic Diversity and Human Values, 3 credits
493-225 American Indian Studies: Arts and Ceremonial Traditions, 3 credits
493-226 American Indian Studies: Wisconsin American Indian Nations, 3 credits

Upper-Level Courses, 24 credits

Perspectives on Human Values, 9 credits from the following areas:

Classical/Medieval, select one:
493-334 Perspectives on Human Values: Classical World, 3 credits
493-335 Perspectives on Human Values: Medieval World, 3 credits

Renaissance/Reason, select one:
493-336 Perspectives on Human Values: Renaissance, 3 credits
493-337 Perspectives on Human Values: Age of Reason, 3 credits

Romanticism/Naturalism/Modern Period, select one:
493-338 Perspectives on Human Values: Romanticism to Naturalism, 3 credits
493-339 Perspectives on Human Values: Modern Period, 3 credits

Interdisciplinary Themes and Study of Great Works, 6 credits:
493-350 Interdisciplinary Study of Great Works, 1-3 credits (can be repeated)
493-351 Interdisciplinary Themes in Humanistic Studies, 3 credits (can be repeated)

Capstone Seminar, 3 credits
493-440 Perspectives on Human Values: Contemporary World, 3 credits

Select 6 credits from one of the following two lists:

Modern Culture Studies:
493-355 Spanish and Latin American Cinema, 3 credits
493-356 German Culture, 3 credits
493-357 German Cinema, 3 credits
493-358 Latin America Today, 3 credits
493-361 Travel Course: Germany, 3 credits
493-362 Travel Course: Spain, 3 credits
493-363 Travel Course: Mexico, 2 credits
493-365 Travel Course: England, 3 credits
493-366 Travel Course: Paris, 2-3 credits
493-376 Cultural Conflict in French Canada, 3 credits
Electives (if foreign language studies were completed in high school or college):
- 493-323 The Writings of the Old Testament, 3 credits
- 493-324 The Writings of the New Testament, 3 credits
- 493-325 Judaism, Christianity, and Islam, 3 credits
- 493-326 Non-Western Religions, 3 credits
- 493-355 Spanish and Latin American Cinema, 3 credits
- 493-356 German Culture, 3 credits
- 493-357 German Cinema, 3 credits
- 493-358 Latin America Today, 3 credits
- 493-361 Travel Course: Germany, 3 credits
- 493-362 Travel Course: Spain, 3 credits
- 493-363 Travel Course: Mexico, 2 credits
- 493-365 Travel Course: England, 3 credits
- 493-366 Travel Course: Paris, 2-3 credits
- 493-371 American Indian Art and Artists, 3 credits
- 493-372 American Indian Mythology and Literature, 3 credits
- 493-374 Wisconsin American Indian Ethnography, 3 credits
- 493-376 Cultural Conflict in French Canada, 3 credits
- 493-391 American Indian Seminar, 3 credits
- 493-410 The Christian Heritage: Birth of Christ to 1600, 3 credits

Requirements for the Minor

Supporting Courses, 6 credits
Introduction Course I, select one:
- 493-101 Foundations of Western Culture I, 3 credits
- 493-201 Introduction to Humanities I, 3 credits

Introduction Course II, select one:
- 493-102 Foundations of Western Culture II, 3 credits
- 493-202 Introduction to Humanities II, 3 credits

Upper-Level Courses, 12 credits
Perspectives on Human Values, 6 credits (select one course from two of the following areas):
Classical/Medieval:
- 493-334 Perspectives on Human Values: Classical World, 3 credits
- 493-335 Perspectives on Human Values: Medieval World, 3 credits

Renaissance/Reason:
- 493-336 Perspectives on Human Values: Renaissance, 3 credits
- 493-337 Perspectives on Human Values: Age of Reason, 3 credits

Romanticism/Naturalism/Modern Period:
- 493-338 Perspectives on Human Values: Romanticism to Naturalism, 3 credits
- 493-339 Perspectives on Human Values: Modern Period, 3 credits

Capstone Seminar, 3 credits
- 493-440 Perspectives on Human Values: Contemporary World, 3 credits

Elective, 3 credits
Choose from the upper-level electives listed under requirements for the major.

Individual Major

Interdisciplinary Major

Adviser — Michael W. Murphy.

An individual major is a self-designed program for students who find that their educational objectives can not adequately be met by any of the University's existing majors. The individual major allows students to incorporate courses from several academic programs 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 approach of the University, all individual majors must incorporate courses from several academic programs.

To develop an individual major, students meet with the individual major advisor to discuss their educational and career objectives and then write a proposal which includes a statement of objectives, a list of proposed courses for the major, and a rationale explaining how those courses form a coherent program of study. The proposal must be approved by the individual major advisor and by a faculty advisor selected by the student 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.

The minimum requirements for an individual major include 30 credits of upper-level credits focused on an interdisciplinary theme, and an appropriate array of supporting courses.

Additional information and assistance in planning an individual major are available from the Office of the Dean of Liberal Arts and Sciences.

The following are examples of individual majors developed by UW-Green Bay students in recent years:
- Cross-Cultural Health Science
- Recreational Administration and Planning
- Political Economy
- Human Services for At-Risk Populations
- Theater Administration
- Dance Studio Management
- Business and International Studies
- Performing Arts Engineering and Design Technology
- Environmental and Conservation Education
- Environmental Policy Management
- Science Writing
- Cultural Perspectives in Social Science
Information Sciences

Interdisciplinary Major or Minor

Professors — Clifford Abbott (linguistics), Phillip Clappist (communication), Timothy Meyer (communication) (chairperson), William Shay (computer science).

Associate Professors — Forrest Baule (computer science), Charles Matter (psychology), Bruce Miels (computer science).

Assistant Professor — Peter Breznay (computer science), Jennifer Snyder-Duch (communication).

Lecturer — Linda Carl (computer science).

The central organizing concept of this major is information — its structures in verbal, visual, and quantitative forms; its storage, analysis, evaluation, processing and communication by both machines and people. The program is new and continues to evolve. Students can expect curricular additions and changes as development proceeds in a rapidly changing field.

The curriculum ranges widely across several disciplines, all of which are represented in the core requirements — computing, linguistics, cognitive psychology, communication theory, organizational communication and management, mathematics, data and information technologies, and language.

Computers represent an important dimension of this major, but students also are expected to be thoroughly grounded in human language, human information processing, and communication. This ensures against narrow technical preparation, which too often leads to rapid obsolescence in rapidly changing fields, and it prepares students to make the most creative and useful applications of various information technologies.

A goal of the program is to train students to conceptualize and solve information problems in interdisciplinary situations. A core introductory course focuses on information problems; most of the courses require projects, and many demand group work; a research project or internship is also required of all majors. Moreover, each student negotiates an individual area of application. This requirement is an opportunity to apply information principles to a particular problem area or to gain further tools for a specific career direction. Students also develop a personal portfolio that documents many of their skills and areas of expertise. Finally, students complete an advanced information problems capstone course which integrates skills and knowledge acquired in the major.

Career paths for information sciences graduates are changing rapidly, and UW-Green Bay graduates report that the breadth of this program has been important to them. Some have essentially created their own positions, and have pursued advanced graduate work. Others have entered a wide variety of jobs after graduation in areas such as programming and software design, advertising, marketing and sales, systems analysis, and human resources. The required portfolio has proven to be an excellent means of attracting the attention and interest of prospective employers or for admission to graduate schools.

The major in information sciences focuses on information problems, information technologies, and information structures. It can be structured with or without programming skills.

In addition to the major and minor in information sciences, UW-Green Bay also offers a disciplinary major and minor in computer science. These options offer students considerable flexibility in combining other areas (e.g., communication, business administration), but to be valuable, that flexibility requires planning. The programs in information sciences and in computer science all require early and frequent consultations with faculty advisers.

Requirements for the Major

Supporting Courses, 33 credits

One year of any college-level foreign language
266-241 Discrete Mathematics I, 4 credits
266-256 Software Design I, 4 credits
266-257 Software Design II, 4 credits
520-210 Information Problems, 3 credits
520-220 Controlling Bibliographic Information, 3 credits
520-230 Visual Information, 3 credits

One of these:
266-242 Discrete Mathematics II, 4 credits
600-260 Introductory Statistics, 4 credits

Upper-Level Courses, 30 credits

246-390 Scientific and Technical Communication, 3 credits
266-331 Internet Programming, 3 credits
266-451 Database Management Systems, 3 credits
520-308 Information Technologies, 3 credits
520-402 Expert Systems, 3 credits
520-410 Advanced Information Problems, 3 credits

One of these:
246-322 Modern Linguistics, 3 credits
246-326 Modern Semantics, 3 credits

One of these:
216-382 Introductory Management, 3 credits
246-335 Organizational Communication, 3 credits

One of these:
246-445 Human Communication Theory, 3 credits
520-430 Information, Media and Society, 3 credits

One of these:
520-440 Information and Computing Science Practicum, 3 credits
520-497 Internship, 3-12 credits

Area of Emphasis, 6 credits

The emphasis represents an area of application which affords an opportunity for students to develop some expertise in a particular dimension of information studies. The area is created by the student with the approval of an adviser.

Requirements for the Minor

Supporting Courses, 6 credits

520-201 Information, Computers, and Society, 3 credits
520-210 Information Problems, 3 credits

Upper-Level Courses, 15 credits

520-308 Information Technologies, 3 credits
520-410 Advanced Information Problems, 3 credits
520-430 Information, Media and Society, 3 credits

Electives, choose two of these:
246-322 Modern Linguistics, 3 credits
246-326 Modern Semantics, 3 credits
246-335 Organizational Communication, 3 credits
266-351 Data Structures, 4 credits
820-417 Psychology of Cognitive Processes, 3 credits
Interdisciplinary Studies

Interdisciplinary Major

Director — Dorothy J. Stepień.

The interdisciplinary studies major is offered through the University's Extended Degree program. Credits can be earned in ways that meet the needs of adult learners over 25 years of age who, because of employment or family responsibilities, cannot attend classes scheduled during the day. Courses are delivered through attendance at some half-day Saturday classes along with individualized, structured learning outside the classroom. Students also can earn credits by participating in a one-credit summer program on campus or by distance learning delivery modes such as the internet.

This major helps students gain a broad intellectual understanding of the interrelationships of learning among several areas of study including the social sciences, natural sciences, humanities, fine arts, and business and economics. Students may choose a general track which focuses evenly on all categories, or a business and economics track which has a greater concentration of business courses. The interdisciplinary studies major prepares the student to apply this learning in his or her professional, community, and personal activities and is a suitable preparation for graduate work in a number of programs.

The interdisciplinary studies major requires that students become effective oral, written, interpersonal, and technical (computer) communicators. These are among the qualities which are expected by employers as well as graduate schools. Students in the interdisciplinary studies major also focus throughout the major on their ability to engage in various phases of problem identification, analysis, diagnosis, and solutions from a broad-based perspective. Students who complete the major report that they develop both personally and socially. They gain an awareness of self, of cultural diversity and of the world around them, which leads to development of a commitment for life-long learning.

Interdisciplinary studies majors are required to identify an area of emphasis individualized to meet their needs. The emphasis may be career-related or focus on an area of special interest. The area of emphasis may be comprised of interdisciplinary courses or courses from a single discipline. It is also possible to obtain a minor in other programs of study, for example, business administration or women's studies.

The interdisciplinary studies major provides an opportunity to acquire or enhance a broad knowledge base along with an in-depth understanding of a specific area that is applicable to many careers. Adult learners who want to earn an accredited and respected university degree and whose work schedule or family responsibilities create scheduling conflicts with traditional day-time classes may find that the interdisciplinary studies major through the Extended Degree program will fit their needs.

Requirements for the Major

Supporting Courses, 36 credits
Writing Competency, 3 credits
Human Biology Introduction, 3 credits*
Environmental Science Introduction, 3 credits*
Introduction to Western Culture I, 3 credits*
Introduction to Western Culture II, 3 credits*
Content, Methods and Concepts of Social Science Disciplines, 3 credits*
Application of Social Science Principles to Social Issues, 3 credits*
Adult Learning Seminar, 2 credits
Oral Communications, 3 credits
Mathematics: 255-205 Social Science Statistics, 3-4 credits
Other Culture, 3 credits
Ethnic Studies, 3 credits
Writing Emphasis: 4 courses (At least two of the courses must be at the upper level. These courses may also fulfill other requirements.)

* Not required for students entering with an associate degree from a UW System institution or from an institution where an articulation agreement exists.

Core Courses

General Track: 56 upper-level credits
Business and Economics, 9 credits
Fine Arts, 3 credits
Humanities, 6 credits
Natural Sciences, 9 credits
Social Sciences, 9 credits
Problem Solving, 3 credits
Capstone, 2 credits
Area of Emphasis, 15 credits (courses selected to meet individual needs)

Business and Economics Track, 57 upper-level credits
Business and Economics, 16 credits
Additional Business Related Courses, 9 credits (courses selected to meet individual needs)
Fine Arts, 3 credits
Humanities, 6 credits
Natural Sciences, 9 credits
Social Sciences, 9 credits
Problem Solving, 3 credits
Capstone, 2 credits
International Studies

Certificate Program

Adviser — Mark W. Everingham

International studies is an increasingly useful field of study as the world we live in becomes more interdependent and complex. Developments elsewhere in the world today quickly affect us directly or indirectly, while decisions and activities in the U.S. influence other countries. International trade accounts for an increasing proportion of American and world economic activity. For these reasons, the employment market for individuals with foreign language competence, cross-cultural sensitivity, and knowledge of the world is growing rapidly.

Students pursuing a variety of fields will find the international studies certificate useful. These fields include education, business, public service, comparative cultural studies, foreign languages, area studies, political science, history, anthropology, sociology, developmental economics, comparative environmental studies, international relations and diplomacy.

To be eligible for the international studies certificate program, students must either be candidates for a B.A. or B.S. degree or have already completed such a degree, and students cannot receive the certificate without completing the degree.

The international studies certificate is formal recognition on the transcript that a student has successfully completed a set of courses drawn from many disciplines which provide a strong background in international studies. The certificate also attests to a student’s having achieved some proficiency in a foreign language and/or some experience abroad. See the “International Education” reference in The UW-Green Bay Student Experience section of this catalog for a description of the study abroad opportunities that are available as one of the options for students pursuing the international studies certificate.

Students can count courses toward the certificate that they already counted toward their major or minor, so with early planning, acquiring the certificate will not delay graduation.

Requirements for the Certificate

Language and Field Experience

Competence in one major foreign language

In addition, fulfill one of these:

Approved study abroad experience

Internship with a local organization with international issues

Supporting Courses, 12 credits

448-100 History of the Modern World, 3 credits

778-100 World Politics, 3 credits

951-102 World Regions and Concepts: A Geographic Analysis, 3 credits

Choose one:

493-101 Foundations of Western Culture I, 3 credits

493-102 Foundations of Western Culture II, 3 credits

Regional Studies, 6 credits

Choose two upper-level courses from one of the following regions:

Asia

Africa

Europe

Latin America or Caribbean or Canada

Problem Focus, 6 credits

Choose two courses in one of the following areas of emphasis:

International Business:

216-445 International Financial Management, 3 credits

298-403 International Trade, 3 credits

298-404 Economics of Developing Areas, 3 credits

298-406 Comparative Economic Systems and Institutions, 3 credits

397-367 Business French, 3 credits

Or other relevant course in international business

International Politics:

778-351 Comparative Political Systems, 3 credits

778-353 Politics of Developing Areas, 3 credits

778-360 International Relations, 3 credits

Or other relevant courses in international politics or comparative political systems

European Cultures:

397-367 Business French, 3 credits

424-356 German Culture, 3 credits

908-438 Major Spanish and Latin American Writers, 3 credits

Or additional relevant upper-level courses from Regional Studies-Europe category or approved courses taken in study abroad programs
Mathematics

Disciplinary Major or Minor

Associate Professors — Forrest B. Baulieu, Gregory J. Davis, Tian-You Hu, Theodor P. Korinthoski.
Assistant Professors — Dechang Chen, David M. Delan.
Lecturers — Theresa E. Adsit, Sureya Mohammed, Gary C. Wardall.

The mathematics discipline has programs of study in two emphasis areas: mathematics and statistics. A student who elects a disciplinary major in mathematics must choose an area of emphasis from one of these two programs of study.

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 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 high school calculus may, with advice of faculty, enter 600-202 Calculus and Analytic Geometry I. Upon earning a "C" or better in 600-203, an additional four credits are granted for 600-202 Calculus and Analytic Geometry I.

Mathematics majors must choose an interdisciplinary minor. Examples are environmental science, business administration, or information sciences.

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

Requirements for the Major

Areas of Emphasis

Complete requirements in one of the areas of emphasis. Each emphasis has its own set of upper-level requirements.

- **Mathematics**
- **Supporting Courses, 12 credits**
  - 600-202 Calculus and Analytic Geometry I, 4 credits
  - 600-203 Calculus and Analytic Geometry II, 4 credits
  - 600-209 Multivariate Calculus, 4 credits

- **Upper-Level Courses, 29 credits**
  - 600-305 Ordinary Differential Equations, 3 credits
  - 600-320 Linear Algebra I, 3 credits
  - 600-321 Linear Algebra II, 3 credits
  - 600-323 Analysis I, 4 credits
  - 600-324 Analysis II, 4 credits
  - 600-328 Introduction to Algebraic Structures, 3 credits
  - 600-385 Foundations of Geometry, 3 credits

- **Electives, choose 6 credits:**
  - 600-309 Systems of Ordinary Differential Equations, 3 credits
  - 600-355 Applied Mathematical Optimization, 3 credits
  - 600-360 Theory of Probability, 3 credits
  - 600-361 Mathematical Statistics, 3 credits
  - 600-410 Complex Analysis, 3 credits
  - 600-416 Orthogonal Functions and Partial Differential Equations, 3 credits
  - 600-425 Dynamical Systems, 3 credits
  - 600-492 Special Topics in Mathematics, 1-4 credits

- **Statistics**
- **Supporting Courses, 16 credits**
  - 600-202 Calculus and Analytic Geometry I, 4 credits
  - 600-203 Calculus and Analytic Geometry II, 4 credits
  - 600-209 Multivariate Calculus, 4 credits
  - 600-260 Introductory Statistics, 4 credits

- **Upper-Level Courses, 27 credits**
  - 600-320 Linear Algebra I, 3 credits
  - 600-321 Linear Algebra II, 3 credits
  - 600-323 Analysis I, 4 credits
  - 600-324 Analysis II, 4 credits
  - 600-360 Theory of Probability, 3 credits
  - 600-361 Mathematical Statistics, 3 credits
  - 600-467 Applied Regression Analysis, 3 credits

- **Electives, choose one of these:**
  - 008-767 Design of Experiments, 4 credits
  - 008-768 Multivariate Statistical Analysis, 4 credits
  (Registration in 008-767 or 008-768 requires a grade point average of 3.00 or higher)
Requirements for the Minor

Areas of Emphasis

- **Mathematics**
  
  **Supporting Courses, 8 credits**
  
  600-202 Calculus and Analytic Geometry I, 4 credits
  600-203 Calculus and Analytic Geometry II, 4 credits
  
  **Upper-Level Courses, 12 credits**
  
  600-320 Linear Algebra I, 3 credits
  
  **Electives, choose 9 credits**:
  
  600-305 Ordinary Differential Equations, 3 credits
  600-309 Systems of Ordinary Differential Equations, 3 credits
  600-321 Linear Algebra II, 3 credits
  600-323 Analysis I, 4 credits
  600-324 Analysis II, 4 credits
  600-328 Introduction to Algebraic Structures, 3 credits
  600-335 Applied Mathematical Optimization, 3 credits
  600-360 Theory of Probability, 3 credits
  600-361 Mathematical Statistics, 3 credits
  600-385 Foundations of Geometry, 3 credits
  600-410 Complex Analysis, 3 credits
  600-416 Orthogonal Functions and Partial Differential Equations, 3 credits
  600-425 Dynamical Systems, 3 credits
  600-492 Special Topics in Mathematics, 1-4 credits

- **Statistics**
  
  **Supporting Courses, 12 credits**
  
  600-202 Calculus and Analytic Geometry I, 4 credits
  600-203 Calculus and Analytic Geometry II, 4 credits
  600-260 Introductory Statistics, 4 credits
  
  **Upper-Level Courses, 12 credits**
  
  600-457 Applied Regression Analysis, 3 credits
  
  **Electives, choose 9 credits**:
  
  008-757 Design of Experiments, 4 credits
  008-768 Multivariate Statistical Analysis, 4 credits
  600-360 Theory of Probability, 3 credits
  600-391 Mathematical Statistics, 3 credits
  
  (Registration in 008-767 or 008-768 requires a grade point average of 3.00 or higher.)

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**Military Science**

**Reserve Officer Training Corp (ROTC) Program**


Military science is concerned primarily with developing leadership competence for success in civilian and military occupations. Students who want to develop such skills pursue studies in military science in addition to their majors and minors.

The military science program has a core curriculum consisting of military skills and professional knowledge integrated in both basic and advanced courses. The core curriculum is listed in the Course Descriptions section of this catalog. While the ultimate purpose of the program is to provide college-trained officers for the U.S. Army, Army Reserve and Army National Guard, it supports University goals by emphasizing personal depth and developing qualities necessary for leadership in civilian occupations as well.

The program is conducted by the Reserve Officers Training Corp (ROTC). It typically is a four-year program. Completing the course provides opportunities for full- or part-time careers as officers in the U.S. Army, Army National Guard, or Army Reserve.
Music

Disciplinary Major or Minor

Professors — Terence O’Grady.
Associate Professors — Kevin Collins (chairperson), Cheryl Gross, Sarah Meredith, John Salerno.
Assistant Professors — Janice Cusano, Thomas Pettenauer, William Winzer, Scott Wright.

The University of Wisconsin-Green Bay is an accredited institutional member of the National Association of Schools of Music.

The music program offers two degrees. The Bachelor of Music degree prepares students for a professional career in music as a performer or educator. The Bachelor of Arts degree offers the study of music in a liberal arts framework. This degree offers broad coverage of music rather than heavy concentration on any single element. It is intended for music majors who wish to major in music as part of a liberal arts program irrespective of specific career aspirations.

The Bachelor of Music offers majors in:
— music education (instrumental, choral, and general music)
— performance (preparation for a career as a performing musician)

The Bachelor of Arts offers emphases in:
— applied music
— jazz studies
— music history and literature

Students are admitted to the music major and minor by audition. Majors are required to take a sequence of theory, history and literature courses to achieve a comprehensive intellectual understanding of music, along with the development of performance skills, and ear-training/sight-singing ability.

Music majors choose an interdisciplinary minor, in consultation with their faculty advisor. Some students choose a minor in communication and the arts because it helps them to integrate music with aesthetics, history and the social context of the fine arts. Music education majors select education as a minor, leading to licensure in their chosen area(s). Other students select from minors that suit various career aspirations, such as business administration.

It is also possible to choose music as a disciplinary minor, combined with an interdisciplinary major. The music minor may be especially appropriate for students who have substantial pre-collegiate backgrounds in music, but who intend to pursue careers in other fields.

Students benefit from the close proximity of the Edward W. Weidner Center for the Performing Arts, which features world-class performances in an acoustically superb environment. Master classes and lectures by guest artists occur several times each year. Most University concerts and student recitals are also held at the Weidner Center. The David A. Cofrin Library holds a substantial collection of scores and recordings as well as books and periodicals related to music.

Two- to four-year sequences of applied instruction are available in voice, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, euphonium, tuba, percussion, piano, organ, guitar, string bass, and electric bass. All degree programs include major and minor ensemble requirements. These requirements must be fulfilled with the ensembles directly related to the area of applied lessons when possible.

Performance opportunities in major ensembles include Wind Ensemble, Symphonic Band, Concert Choir, and University Chorus. Minor ensembles available include Jazz Combo, Flute Ensemble, Woodwind Ensemble, Saxophone Ensemble, Brass Ensemble, Jazz Ensemble, Percussion Ensemble, Hand Drumming Ensemble, New Music Ensemble, Guitar Ensemble, Vocal Ensemble, Vocal Jazz Ensemble, and Opera Workshop.

For information on music teacher certification, contact Prof. Janice Cusano.

Bachelor of Music

Students must complete the courses required of all emphases and the specific requirements in one of the areas of emphasis.

Required Courses of All Emphases

Supporting Courses, 29-32 credits

670-115 Ear Training and Sight Singing I, 1 credit
670-116 Ear Training and Sight Singing II, 1 credit
670-151 Materials and Values in Music I, 3 credits
670-152 Materials and Values in Music II, 3 credits
670-251 Literature and Styles in Music I, 4 credits
670-252 Literature and Styles in Music II, 4 credits
672-1xx First Year Applied I, 2 credits
672-1xx Second Year Applied I, 2 credits
672-2xx Second Year Applied II, 2 credits
672-2xx Major Ensemble, 1 credit (4 credits required)

Keyboard Musicianship: 1-4 credits required

Complete one keyboard set depending upon placement.

Keyboard Set 1:
672-011 Keyboard Musicianship I, 1 credit
672-021 Keyboard Musicianship II, 1 credit
672-031 Keyboard Musicianship III, 1 credit
672-041 Keyboard Musicianship IV, 1 credit

Keyboard Set 2:
672-012 Keyboard Musicianship I, 1 credit
672-022 Keyboard Musicianship II, 1 credit
672-032 Keyboard Musicianship III, 1 credit
672-042 Keyboard Musicianship IV, 1 credit

Keyboard Set 3:
672-013 Keyboard Musicianship I, 1 credit

Upper-Level Courses, 14 credits

670-333 Basic Conducting, 2 credits
670-351 Literature and Styles in Music III, 4 credits
670-352 Literature and Styles in Music IV, 4 credits
672-3xx Minor Ensemble, 1 credit (2 credits required)
   (may be taken as lower-level ensemble)
672-4xx Major Ensemble, 1 credit (2 credits required)

Areas of Emphasis

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

Music Education: Instrumental and General Music Licensure

Supporting Courses, 2 credits
672-045 Elementary Voice I, 1 credit
672-069 Elementary Guitar, 1 credit

Upper-Level Courses, 28 credits

302-317 Teaching Music in Middle and Secondary Schools, 3 credits
302-354 Teaching General Music in Elementary and Middle Schools, 3 credits (not required if seeking only instrumental licensure)
670-316 Instrumental Arranging, 3 credits
670-341 Woodwind Techniques, 2 credits
670-342 Brass Techniques, 2 credits
670-343 String Techniques, 2 credits
670-345 Percussion Techniques, 2 credits
670-346 Keyboard Accompanying I, 1 credit (not required if seeking only instrumental licensure)
670-347 Keyboard Accompanying II, 1 credit (not required if seeking only instrumental licensure)

670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits

672-3xx Third Year Applied I, 2 credits

672-3xx Third Year Applied II, 2 credits (must perform a half recital)

**Musical Education: Choral and General Music Licensure**

**Supporting Course, 1 credit**

672-069 Elementary Guitar, 1 credit

**Upper-Level Courses, 23 credits**

302-317 Teaching Music in Middle and Secondary Schools, 3 credits

302-334 Teaching General Music in Elementary and Middle Schools, 3 credits (not required if seeking only choral licensure)

670-305 Diction for Singers I, 2 credits

670-306 Diction for Singers II, 2 credits

670-315 Choral Arranging, 2 credits

670-318 Choral Literature, 2 credits

670-344 Choral Conducting and Rehearsal Techniques, 3 credits

670-346 Keyboard Accompanying I, 1 credit

670-347 Keyboard Accompanying II, 1 credit

670-345 Third Year Applied Voice I, 2 credits

672-306 Third Year Applied Voice II, 2 credits (must perform a half recital)

**Musical Education: General Music Licensure**

**Supporting Courses, 2 credits**

672-045 Elementary Voice I, 1 credit

672-069 Elementary Guitar, 1 credit

**Upper-Level Courses, 17-18 credits**

302-317 Teaching Music in Middle and Secondary Schools, 3 credits

302-334 Teaching General Music in Elementary and Middle Schools, 3 credits

670-346 Keyboard Accompanying I, 1 credit

670-347 Keyboard Accompanying II, 1 credit

672-3xx Third Year Applied I, 2 credits

672-3xx Third Year Applied II, 2 credits (must perform a half recital)

**One of these:**

670-315 Choral Arranging, 2 credits

670-316 Instrumental Arranging, 3 credits

**One of these:**

670-344 Choral Conducting and Rehearsal Techniques, 3 credits

670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits

**Music Electives, 2 credits**

**One of these:**

670-341 Woodwind Techniques, 2 credits

670-342 Brass Techniques, 2 credits

670-343 String Techniques, 2 credits

670-345 Percussion Techniques, 2 credits

**Performance: Instrumental and Vocal**

**Upper-Level Courses, 23 credits**

242-327 Cross-Cultural Communication: Jazz History, 3 credits

242-329 Cross-Cultural Communication: World Music, 3 credits

670-423 Seminar in Music Literature, 3 credits

670-3xx Third Year Applied I, 3 credits

672-3xx Third Year Applied II, 3 credits (must perform a half recital)

672-4xx Fourth Year Applied I: Literature and Pedagogy, 3 credits

672-4xx Fourth Year Applied II: Literature and Pedagogy, 3 credits (must perform a full recital)

672-4xx Major Ensemble, 1 credit (2 credits required)

**Music Electives, 2-6 credits**

Vocalists choose 2 credits and instrumentalists choose 6 credits from the following:

670-311 Jazz Improvisation, 2 credits

670-315 Choral Arranging, 2 credits (if not required below)

670-316 Instrumental Arranging, 3 credits (if not required below)

670-318 Choral Literature, 2 credits

670-341 Woodwind Techniques, 2 credits

670-342 Brass Techniques, 2 credits

670-343 String Techniques, 2 credits

670-344 Choral Conducting and Rehearsal Techniques, 3 credits

670-345 Percussion Techniques, 2 credits

670-346 Keyboard Accompanying I, 1 credit

670-347 Keyboard Accompanying II, 1 credit

670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits

670-411 Composition, 3 credits

670-417 Jazz Arranging, 2 credits

670-423 Seminar in Music Literature, 3 credits (repeatable with different topics)

**Additional Instrumental Requirement, 3 credits**

670-316 Instrumental Arranging, 3 credits

**Additional Vocal Requirement, 18 credits**

670-305 Diction for Singers I, 2 credits

670-306 Diction for Singers II, 2 credits

670-315 Choral Arranging, 2 credits

**Foreign Language Requirement:**

Vocal Performance students must complete one of the following options:

Option 1: two semesters of French and one semester of German; or the equivalent

Option 2: two semesters of German and one semester of French; or the equivalent

**Bachelor of Arts**

Students must complete the courses required of all emphases and the specific requirements in one of the 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 an interdisciplinary minor and general education.

**Required Courses of All Emphases**

**Supporting Courses, 29-30 credits**

670-115 Ear Training and Sight Singing I, 1 credit

670-116 Ear Training and Sight Singing II, 1 credit

670-151 Materials and Values in Music I, 3 credits

670-152 Materials and Values in Music II, 3 credits

670-251 Literature and Styles in Music I, 4 credits

670-252 Literature and Styles in Music II, 4 credits

672-1xx First Year Applied I, 2 credits

672-1xx First Year Applied II, 2 credits

672-2xx Second Year Applied I, 2 credits

672-2xx Second Year Applied II, 2 credits

672-2xx Major Ensemble, 1 credit (4 credits required)

**Keyboard Musicianship: 1-2 credits required**

Complete one keyboard set depending upon placement.

**Keyboard Set 1:**

672-011 Keyboard Musicianship I, 1 credit

672-021 Keyboard Musicianship II, 1 credit

**Keyboard Set 2:**

672-012 Keyboard Musicianship I, 1 credit

672-022 Keyboard Musicianship II, 1 credit

**Keyboard Set 3:**

672-013 Keyboard Musicianship I, 1 credit

**Upper-Level Courses, 8 credits**

670-351 Literature and Styles in Music III, 4 credits

670-352 Literature and Styles in Music IV, 4 credits
Areas of Emphasis

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

■ Applied Music

Upper-Level Courses, 12 credits
670-333 Basic Conducting, 2 credits
672-3xx Third Year Applied I, 2 credits
672-3xx Third Year Applied II, 2 credits (must perform a half recital)
672-3xx Minor Ensemble, 1 credit (2 credits required)
672-4xx Major Ensemble, 1 credit (4 credits required)

Music Electives, 4 credits
Choose from:
670-305 Diction for Singers I, 2 credits
670-306 Diction for Singers II, 2 credits
670-315 Choral Arranging, 2 credits
670-316 Instrumental Arranging, 3 credits
670-318 Choral Literature, 2 credits
670-341 Woodwind Techniques, 2 credits
670-342 Brass Techniques, 2 credits
670-343 String Techniques, 2 credits
670-345 Percussion Techniques, 2 credits
670-411 Composition, 3 credits
670-423 Seminar in Music Literature, 3 credits

■ Jazz Studies

Supporting Courses, 3 credits
670-242 Jazz and Pop Literature, 2 credits

One of these:
672-143 Jazz Ensemble, 1 credit
672-165 Vocal Jazz Ensemble, 1 credit

Upper-Level Courses, 12 credits
670-311 Jazz Improvisation, 2 credits
670-417 Jazz Arranging, 2 credits
672-3xx Third Year Applied I, 2 credits
672-3xx Third Year Applied II, 2 credits (must perform a half recital)
672-4xx Major Ensemble, 1 credit (2 credits required)

One of these:
672-343 Jazz Ensemble, 1 credit (2 credits required)
672-365 Vocal Jazz Ensemble, 1 credit (2 credits required)

Music Electives, 4 credits
Choose from:
242-327 Cross-Cultural Communication: Jazz History, 3 credits
242-329 Cross-Cultural Communication: World Music, 3 credits
670-411 Composition, 3 credits
672-342 Jazz Combo, 1 credit
672-365 Vocal Jazz Ensemble, 1 credit

■ Music History and Literature

Upper-Level Courses, 8 credits
670-333 Basic Conducting, 2 credits
670-423 Seminar in Music Literature, 3 credits
672-3xx Minor Ensemble, 1 credit
672-xxx Major Ensemble, 1 credit (2 credits required)

Music Electives, 8 credits
Choose from:
242-327 Cross-Cultural Communication: Jazz History, 3 credits
242-329 Cross-Cultural Communication: World Music, 3 credits
670-315 Choral Arranging, 2 credits
670-316 Instrumental Arranging, 3 credits
670-411 Composition, 3 credits
670-423 Seminar in Music Literature, 3 credits (may be repeated with different topic)

Requirements for the Minor

Supporting Courses, 18-19 credits
242-121 Masters and Masterpieces of Music, 3 credits
670-115 Ear Training and Sight Singing I, 1 credit
670-116 Ear Training and Sight Singing II, 1 credit
670-151 Materials and Values in Music I, 3 credits
670-152 Materials and Values in Music II, 3 credits
672-1xx First Year Applied I, 2 credits
672-1xx First Year Applied II, 2 credits
672-2xx Major Ensemble, 1 credit (2 credits required)

Keyboard Musicianship: 1-2 credits required
Complete one keyboard set depending upon placement.

Keyboard Set 1:
672-011 Keyboard Musicianship I, 1 credit
672-021 Keyboard Musicianship II, 1 credit

Keyboard Set 2:
672-012 Keyboard Musicianship I, 1 credit
672-022 Keyboard Musicianship II, 1 credit

Keyboard Set 3:
672-013 Keyboard Musicianship I, 1 credit

Upper-Level Courses, 6-7 credits
Two of these:
242-327 Cross-Cultural Communication: Jazz History, 3 credits
242-329 Cross-Cultural Communication: World Music, 3 credits
670-333 Basic Conducting, 2 credits

One of these:
672-3xx Minor Ensemble, 1 credit
672-4xx Major Ensemble, 1 credit
Nursing

Bachelor of Science in Nursing for Registered Nurses

Professional Program in Nursing

Associate Professors — Sylvia Kubisch, V. Jane Muhl (chairperson), Harriet Wichowski.

The professional program in nursing is designed to provide a professional and interdisciplinary educational experience for qualified registered nurses (RN) who seek to complete their degree and earn the Bachelor of Science in Nursing. Through its on-campus track and the UW System collaborative track which uses distance technology for course delivery, access to professional nursing education is available for registered nurses throughout Wisconsin.

The program is built upon the foundations of general education and the associate degree or diploma in nursing. It consists of courses supportive of nursing, the professional nursing curriculum, electives, and other courses required for graduation from UW-Green Bay.

The program stimulates development of a personal framework for professional nursing practice, which is grounded in nursing theory and nursing experience, enriched by interdisciplinary learning opportunities, and revealed through specific professional behaviors. The main concepts of the program outcomes are: synthesis of professional roles, nursing process, critical thinking, communication, therapeutic nursing intervention, ethical conduct, autonomous professional behavior, client diversity, change, and professional development.

The professional program in nursing is approved by the Wisconsin State Board of Nursing, P. O. Box 8935, Madison, WI 53708; telephone 608-267-2357. It is accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway – 33rd Floor, New York, NY 10006; telephone 212-363-5555, ext. 153. Preliminary approval is by the Commission on Collegiate Nursing Education, One Dupont Circle, NW, Suite 530, Washington, DC 20036-1128; telephone 202-887-6791. The program is a member agency of the National League for Nursing Council of Baccalaureate and Higher Degree Programs and the American Association of Collegiate Schools of Nursing. Kappa Pi chapter-at-large of Sigma Theta Tau, the international honor society of nursing, was established at UW-Green Bay in 1988.

Program of Study

The campus track requires 120 credits for graduation from UW-Green Bay. Through articulation agreements and validation of prior learning mechanisms, the RN typically enters the BSN completion program with 60 credits. The remaining UW-Green Bay requirements for graduation include 30 credits in nursing and 30 credits in general education and support courses for the nursing major.

The collaborative track requires 120 credits for graduation. Through articulation agreements and validation of prior learning mechanisms, the RN typically enters the BSN completion program with 60 credits. The remaining UW-Green Bay requirements for graduation include 30 credits in nursing delivered primarily through distance technology modalities, and 30 credits in general education and support courses for the nursing major. The majority of these courses are also available through distance technology modalities.

Requirements for Admission to the Nursing Major

1. Graduation from an ADN program or RN diploma program approved by a state board of nursing. Students with RN diplomas must provide a current resume documenting all continuing education and nursing practice since graduation.
2. Grade point average of 2.5 on a 4.0 scale for all post-secondary education.
3. Current RN license in any state.
4. Admission to UW-Green Bay as a nursing student.
6. Official matriculation into UW-Green Bay.
7. Completion of one course in the nursing major.

Requirements for the Major

Supporting Courses, 15 credits

Communication

Speech:

The speech requirement is satisfied based on coursework transferred per articulation agreement.

Written Communication, choose one course:

351-212 Introduction to Creative Writing: Fiction, 3 credits
351-213 Introduction to Creative Writing: Poetry, 3 credits
352-105 Expository Writing, 3 credits

Therapeutic Nursing Intervention

Choose two courses:

216-382 Introductory Management, 3 credits
242-226 American Indian Studies: Wisconsin American Indian Nations, 3 credits
246-336 Theories of the Interview, 3 credits
448-380 Women in the U.S.: Historical Perspectives, 3 credits
478-206 Fertility, Reproduction, and Family Planning, 3 credits
481-331 Infancy and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
481-336 Gender Across the Lifespan, 3 credits
481-342 Cross-Cultural Human Development, 3 credits
481-343 Adulthood and Aging, 3 credits
481-344 Dying, Death, and Loss, 3 credits
481-435 Abnormal Behavior, 3 credits
481-438 Counseling Across the Life Span, 3 credits
493-213 Ethnic Diversity and Human Values, 3 credits
694-142 Food and Nutritional Health, 3 credits
694-300 Human Nutrition, 3 credits
694-350 Life Cycle Nutrition, 3 credits
826-429 Theories of Personality, 3 credits
835-344 Leadership in Organizations, 3 credits
875-241 Introduction to Women’s Studies, 3 credits
875-340 Women, Work and Family, 3 credits
900-308 Sociology of the Family, 3 credits
Critical Thinking
Statistics, choose one course:
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
600-200 Introductory Statistics, 4 credits

Elective, choose one course:
216-206 Law and the Individual, 3 credits
298-203 Micro Economic Analysis, 3 credits
481-424 The Development of Creative and Critical Thinking, 3 credits
505-308 Professional Ethics and Problem Solving, 3 credits
520-210 Information Problems, 3 credits
736-101 Introduction to Philosophy, 3 credits
736-111 Elementary Logic, 3 credits
736-212 Philosophy of Science, 3 credits
736-301 Applied Theoretical Ethics, 3 credits
736-304 American Philosophy, 3 credits
736-324 Contemporary Philosophy, 3 credits
736-326 Philosophy, Politics and Law, 3 credits
736-406 Philosophical Problems in Cognitive Science, 3 credits
951-305 Urban Politics and Policy, 3 credits

Campus Upper-Level Nursing Major, 30 credits
689-317 Advanced Health Assessment, 4 credits
689-341 Theoretical Foundations, 4 credits
689-434 Introduction to Nursing Research, 3 credits
689-437 Nursing Management, 4 credits
689-444 Community Health Nursing, 3 credits
689-445 Community Health Nursing Clinical, 3 credits
689-451 Synthesis for Nursing Practice, 3 credits
689-492 Special Topics in Nursing, 2-3 credits
(repeatable with different topic) (Nursing majors must take 689-492 for a total of six credits to bring the upper-level nursing credits to a minimum of 30.)

Collaborative (Distance Technology) Upper-Level Nursing Major, 30 credits
690-317 Health Assessment, 4 credits
690-341 Theoretical Foundations, 4 credits
690-434 Nursing Research, 3 credits
690-437 Management and Leadership, 4 credits
690-444 Community Health Nursing, 3 credits
690-445 Community Health Nursing Clinical, 3 credits
690-451 Synthesis for Nursing Practice, 3 credits
690-492 Special Topics in Nursing, 2-3 credits
(repeatable with different topic) (Nursing majors must take 690-492 for a total of six credits to bring the upper-level nursing credits to a minimum of 30.)

Philosophy
Disciplinary Major or Minor
Professor — Gilbert Null (chairperson).
Assistant Professors — Andrew Fiala, Hye-Kyung Kim.
The study of philosophy increases awareness and appreciation of the fundamental intellectual, aesthetic and ethical values of the world in which we live. Like mathematics, economics and chemistry, the discipline of philosophy embodies formal thought, structural relationships, abstract models, symbolic languages and deductive reasoning. Students who develop these skills gain perspective to meet problems squarely, improvise and devise solutions, and overcome unpredictable circumstances in life.
National studies of college graduate test scores attest to the success of philosophy students. They consistently score better than nearly all other majors on the Graduate Record Exam, GMAT and LSAT.
But the value of an education in philosophy 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. The flexibility provided by a background in philosophy can become a career asset.
The undergraduate program in philosophy is excellent preparation for many other disciplines and professional programs, including teaching, fine arts, natural and social sciences, psychology, and business.
UW-Green Bay philosophy graduates are actively working in many of those fields. Some have gone on to graduate or professional schools in law, philosophy, and other areas.

Requirements for the Major
Supporting Courses, 9 credits
Required courses:
736-111 Elementary Logic, 3 credits
736-213 Ancient Philosophy, 3 credits
736-214 Modern Philosophy, 3 credits

Suggested courses:
736-101 Introduction to Philosophy, 3 credits
736-102 Problems in Ethics, 3 credits
736-103 Introduction to Social and Political Philosophy, 3 credits
736-208 Science and Human Values, 3 credits
736-210 Civilization and Culture, 3 credits
736-211 Philosophy of Art, 3 credits
736-212 Philosophy of Science, 3 credits

Upper-Level Courses, 24 credits
736-301 Applied Theoretical Ethics, 3 credits
736-308 Epistemology: The Problem of Knowledge, 3 credits
736-309 Religion and Medieval Philosophy, 3 credits
736-323 Nineteenth Century Philosophy, 3 credits
736-324 Contemporary Philosophy, 3 credits
736-326 Philosophy, Politics and Law, 3 credits
736-403 Major Philosophic Figures and Issues, 3 credits
736-406 Philosophical Problems in Cognitive Science, 3 credits
Requirements for the Minor

Supporting Courses, 9 credits
736-213 Ancient Philosophy, 3 credits
736-214 Modern Philosophy, 3 credits

One of these:
736-101 Introduction to Philosophy, 3 credits
736-102 Problems in Ethics, 3 credits
736-105 Introduction to Social and Political Philosophy, 3 credits
736-111 Elementary Logic, 3 credits (strongly recommended)
736-208 Science and Human Values, 3 credits
736-210 Civilization and Culture, 3 credits
736-211 Philosophy of Art, 3 credits
736-212 Philosophy of Science, 3 credits

Upper-Level Courses, 12 credits
Choose from:
736-301 Applied Theoretical Ethics, 3 credits
736-308 Epistemology: The Problem of Knowledge, 3 credits
736-309 Religion and Medieval Philosophy, 3 credits
736-323 Nineteenth Century Philosophy, 3 credits
736-324 Contemporary Philosophy, 3 credits
736-326 Philosophy, Politics and Law, 3 credits
736-403 Major Philosophic Figures and Issues, 3 credits
736-406 Philosophical Problems in Cognitive Science, 3 credits

Physical Education

Including Coaching Certification

Chairperson — Otis Chambers.

Lecturers, basic instruction program — Tim Helein, Brian Hernaas, Michael Kline, Frank Madzarevic, James Mencer, Patrick Petitchian, Janis Pum.

Lecturers, certification program — Terry Beeck, Cecily Dawson, Dan Harris, Michael Kline, Frank Madzarevic, Dawn Plitzuweit, Robert Semling.

The physical education unit does not offer a major or minor. However, a student may count up to four credits of physical education courses toward a bachelor's degree. Students are advised to consult the Timeable for further regulations about physical education.

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 17 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.

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.

Requirements for Coaching Certification

Required Courses, 17 credits

Required, 15 credits:
478-102 Introduction to Human Biology, 3 credits
742-116 First Aid and Emergency Care Procedures, 3 credits
742-401 Philosophy of Athletics and Coaching, 2 credits
742-403 Organization and Administration of Athletics, 2 credits
742-405 Scientific Conditioning of the Athlete, 2 credits (prerequisite 478-102 or equivalent)
742-406 Prevention and Treatment of Athletic Injuries, 3 credits (prerequisite 478-102 or equivalent)

And choose 2 credits from either Principles of Coaching or Field Experience in Coaching:
742-410-434 Principles of Coaching, 2 credits

Select from:
410 Baseball/Softball
411 Basketball
412 Bowling
413 Crew
414 Curling
415 Fencing
### Other Activity Classes:

- 742-101 Swimming I, 1 credit
- 742-121 Personal Conditioning, 1 credit
- 742-122 Training With Weights, 1 credit
- 742-124 Conditioning Through Running, 1 credit
- 742-145 Golf I, 1 credit
- 742-148 Karate I, 1 credit
- 742-154 Tennis I, 1 credit
- 742-159 Racquetball I, 1 credit
- 742-197 Cross-Country Skiing I, 1 credit
- 742-201 Swimming II, 1 credit
- 742-205 Water Safety Instruction, 2 credits
- 742-208 Scuba, 2 credits
- 742-210 Lifeguarding Today, 2 credits
- 742-213 Sailing II, 1 credit
- 742-222 Nautilus Training, 1 credit
- 742-248 Karate II, 1 credit
- 742-254 Tennis II, 1 credit
- 742-259 Advanced Racquetball, 1 credit

### Physics

#### Disciplinary Minor


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 interdisciplinary 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.

The physics laboratories at UW-Green Bay are well-equipped with computers and other equipment for measurements, data acquisition, and experimentation.

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

#### Requirements for the Minor

**Supporting Courses, 18 credits**

- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits

**Upper-Level Courses, 12 credits**

- 754-321 Structure of Matter, 3 credits

**Electives, choose a minimum of 9 credits:**

- 754-317 Optics, 3 credits
- 754-318 Optics Laboratory, 1 credit
- 754-320 Thermodynamics and Kinetics, 3 credits
- 754-322 Thermodynamics and Kinetics Laboratory, 1 credit
- 754-323 Structure of Matter Laboratory, 1 credit
- 754-405 Electronics for Scientists, 3 credits
- 754-415 Solar and Alternate Energy Systems, 3 credits
- 754-417 Nuclear Physics and Radiochemistry, 3 credits
- 754-418 Nuclear Physics and Radiochemistry Laboratory, 1 credit
- 754-455 Microprocessors and Digital Electronics, 3 credits
Political Science

Disciplinary Major or Minor

Professors — Daniel J. Alesh, Michael E. Kraft.
Associate Professors — Francis J. Carleton, Scott R. Farlong (chairperson), David M. Litig, Denise L. Schieberle.
Assistant Professor — Mark Everingham.

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 intending careers in law. The field of study is also useful for students planning careers in journalism, planning, education, business, foreign service, politics, and public service positions with private and public agencies at the local, state, regional, and federal levels.

Political science majors have entered graduate study in political science, public administration, education, and related fields. Students seeking teacher preparation should consult early with advisors in political science and education.

Majors in political science must choose an interdisciplinary minor. Because political science is a discipline with applications in many fields of endeavor, there are many appropriate choices, depending upon a student's individual interests. The most commonly chosen minors are public administration, urban and regional studies, environmental policy and planning, social change and development, and business administration.

Completion of a comprehensive examination within the major is required of all seniors. The purpose of the exam is to help faculty assess the program. Students will not be graded or receive credit for the exam.

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

Requirements for the Major

Required Supporting Courses, 12 credits

One of these:
778-100 World Politics, 3 credits
778-101 American Government and Politics, 3 credits

One of these:
778-100 World Politics, 3 credits
778-101 American Government and Politics, 3 credits
778-202 Introduction to Public Policy, 3 credits
778-215 Understanding Presidential Elections, 3 credits
778-230 Law and the Judicial Process, 3 credits
835-215 Introduction to Public Administration, 3 credits

One of these:
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits (strongly recommended)
600-260 Introductory Statistics, 4 credits

Required:
255-301 Foundations for Social Research, 3 credits

Upper-Level Courses, 24 credits

Core courses, 9 credits:
778-340 Political Theory, 3 credits
778-360 International Relations, 3 credits
One of these:
778-351 Comparative Political Systems, 3 credits
778-353 Politics of Developing Areas, 3 credits

Choose 15 credits from the following lists, not taken as part of the nine-credit core. At least one course must be taken from the American Government and Politics category.

American Government and Politics:
778-301 Environmental Politics and Policy, 3 credits
778-305 Urban Politics and Policy, 3 credits
778-306 Regulatory Policy and Administration, 3 credits
778-310 The American Presidency, 3 credits
778-312 Community Politics, 3 credits
778-314 Administrative Law, 3 credits
778-316 Congress: Politics and Policy, 3 credits
778-318 Political Behavior, 3 credits
778-320 Constitutional Law, 3 credits
778-408 Public Policy Analysis, 3 credits
778-410 Intergovernmental Relations, 3 credits
835-378 Environmental Law, 3 credits
835-406 State and Local Government, 3 credits
951-351 Transportation and the City, 3 credits

Comparative and International Politics:
448-358 Latin American History, 3 credits
778-351 Comparative Political Systems, 3 credits
778-353 Politics of Developing Areas, 3 credits
875-351 International Organizations: Policies and Practices, 3 credits

Political Theory:
776-326 Philosophy, Politics, and Law, 3 credits
875-325 Law and Society, 3 credits

Requirements for the Minor

Required Supporting Courses, 6 credits

Choose from:
778-100 World Politics, 3 credits
778-101 American Government and Politics, 3 credits
778-202 Introduction to Public Policy, 3 credits
778-215 Understanding Presidential Elections, 3 credits
778-230 Law and the Judicial Process, 3 credits
835-215 Introduction to Public Administration, 3 credits

Upper-Level Courses, 12 credits

Choose four courses with the 778 prefix from the list of upper-level courses shown under requirements for the major in political science.
Psychology

Disciplinary Major or Minor

Professors — Fergus Hughes, Lloyd Noppe, Dean Rodeheaver.
Associate Professors — Dennis Lorenz, Tracy Luchetta, Charles Mather, Ilene Noppe (chairperson), Timothy Sewall.
Assistant Professors — Regan Gurung, Karin Sussess, Georgieanna Wilson-Doenges.

Psychology is the systematic and scientific study of behavior and experience. It seeks to explain how physiological, personal, social, and environmental conditions influence thought and action. Research with humans and animals aims at understanding, predicting, and influencing 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. It has developed several specialized subareas with focuses spanning from the level of the nerve cell (e.g., the neural basis of memory) to that of society (e.g., the developmental consequences of the Head Start program).

A strong grasp of psychology requires knowledge of the approach and context of each of its subareas. Students gain this understanding by completing core courses. They choose additional courses to meet individual needs with the help of a psychology adviser. Those who major in psychology learn to evaluate research articles and to design, conduct and report experiments by fulfilling the research methodology requirement.

The program offers several special opportunities for students to strengthen their professional preparation. Psychology faculty frequently work with students on collaborative research projects. Support for advanced student research is enhanced by new computers in the human psychology laboratory and a diversity of sophisticated simulation and recording equipment in the physiological psychology laboratory. Internships are available in a variety of 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 social and community service agencies, businesses, research firms, and governmental agencies. Preparation for specialized professional work — such as testing, counseling, university teaching, and many research activities — usually requires master’s or doctorate degrees. Preparation for advanced study should combine a broad program in liberal arts with a sound background in the physical and biological sciences and should emphasize research skills and experiences.

Graduates continue professional training in such fields as social work, education, medicine, and business, as well as psychology. Students seeking teaching licensure should consult advisers in psychology and education.

Psychology majors must choose an interdisciplinary minor. Such a minor strengthens preparation in psychology and enables students to prepare for a diversity of careers. Human development is the most chosen minor, though a number of minors are also completed in human biology and in the social science interdisciplinary programs. Students seeking information on teacher certification should contact the Education Office.

Requirements for the Major

Supporting Courses, 10 credits
820-102 Introduction to Psychology, 3 credits

One of these:
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

One of these:
478-102 Introduction to Human Biology, 3 credits
478-313 Brain Functions in Human Behavior, 3 credits

Upper-Level Courses, 28 credits
Research Methodology:
820-300 Experimental Psychology, 4 credits

Core Courses:
Choose one course from each of the following four groups:

General/Experimental Psychology
820-306 Psychology of Perception, 3 credits
820-308 Psychological Psychology, 3 credits
820-417 Psychology of Cognitive Processes, 3 credits

Social Psychology
820-330 Social Psychology, 3 credits
820-390 Environmental Psychology, 3 credits
820-415 Organizational and Personnel Psychology, 3 credits

Developmental Psychology
481-331 Infancy and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
481-343 Adulthood and Aging, 3 credits

Clinical/Personality Psychology
820-429 Theories of Personality, 3 credits
820-435 Abnormal Behavior, 3 credits

Additional Courses, 12 credits:
Choose from core courses above or from the following:
841-424 The Development of Creative and Critical Thinking, 3 credits
841-438 Counseling Across the Life Span, 3 credits
820-401 Psychology of Women, 3 credits
820-420 Tests and Measurements, 3 credits
820-423 Advanced Physiological Psychology, 4 credits
820-430 History and Systems of Psychology, 3 credits
820-450 Health Psychology, 3 credits
820-497 Internship, 3-12 credits

Requirements for the Minor

Supporting Courses, 7 credits
820-102 Introduction to Psychology, 3 credits

One of these:
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

Upper-Level Courses, 15 credits
A minimum of three credits from each of the four groups of core courses listed under the upper-level requirements for the major.

And a minimum of three credits from the additional courses listed under the upper-level requirements for the major.
Public Administration

Interdisciplinary Major or Minor

Associate Professors — Scott R. Furlo, David M. Litig, Denise L. Scherer (chairperson).

The public administration major is a broad-based, interdisciplinary, social science major. It is designed to prepare students for challenging careers in public and nonprofit organizations, as well as for further study in graduate programs. Students develop proficiency in organizational management and leadership, public policy analysis, policy development and implementation, budgeting, and governmental processes.

Graduates hold positions as professional administrators, policy analysts, budget specialists, program managers, personnel counselors, governmental affairs directors for businesses, and human resource specialists. Many pursue graduate studies in public administration, law, political science, social services, public policy, and public affairs.

Because of the wide range of course offerings in public administration, students may sharpen their managerial skills so that they may pursue careers in management within public or non-profit organizations. Students may also choose to focus on understanding substantive policy (such as environmental policy) and public policy design.

All public administration majors engage in both theoretical and applied studies. Many courses include theory as well as problem-focused, applied learning. Students are encouraged to gain these experiences through independent study, community research projects, and the internship program administered by the department. Public administration majors in the past have completed internships in city, county and state executive offices, as well as in non-profit agencies.

The major in public administration consists of three sets of requirements: required supporting courses, upper-level core courses, and elective credits within the major. Other courses are recommended for public administration majors. Students are encouraged to seek assistance from a faculty adviser in creating their academic plan.

Considering a Double Major or a Major and a Minor?

Many public administration majors also choose to major in political science, environmental policy and planning or economics. A second major complements the public administration curriculum, and makes students stronger candidates when seeking careers or entry into graduate programs. An interdisciplinary minor in public administration fits well with a major in political science, economics, communication processes, environmental policy and planning, urban and regional studies, social change and development, and others. See a faculty adviser early in your academic career for advice on these options.

Requirements for the Major

Recommended Supporting Courses
246-133 Fundamentals of Public Address, 3 credits
298-202 Macro Economic Analysis, 3 credits
352-105 Expository Writing, 3 credits

Required Supporting Courses, 18 credits
255-301 Foundations for Social Research, 3 credits
298-203 Micro Economic Analysis, 3 credits
778-101 American Government and Politics, 3 credits
835-202 Introduction to Public Policy, 3 credits
835-215 Introduction to Public Administration, 3 credits

One of these:
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

Upper-Level Courses, 24 credits
Required core courses, 9 credits:
835-315 Public and Nonprofit Management, 3 credits
835-408 Public Policy Analysis, 3 credits
835-415 Public and Nonprofit Budgeting, 3 credits

Institutions, Processes, and Organizational Behavior
Choose one course:
778-316 Congress: Politics and Policy, 3 credits
778-410 Intergovernmental Relations, 3 credits
820-415 Organizational and Personnel Psychology, 3 credits
835-314 Administrative Law, 3 credits
835-344 Leadership in Organizations, 3 credits
835-406 State and Local Government, 3 credits

Analytic Methods
Choose one course:
107-316 Governmental and Nonprofit Accounting, 3 credits
835-402 Environmental and Resource Economics, 3 credits
835-409 Public Finance and Fiscal Policy, 3 credits
835-452 Planning Theory and Methods, 3 credits

Public Policy
Choose one course:
835-301 Environmental Politics and Policy, 3 credits
835-306 Regulatory Policy and Administration, 3 credits
835-378 Environmental Law, 3 credits
951-305 Urban Politics and Policy, 3 credits
951-351 Transportation and the City, 3 credits

Additional courses, 6 credits:
Choose two courses from any of the three groups of courses listed above, or 835-461 Special Topics in Public and Environmental Affairs, or 835-497 Internship in Public and Environmental Affairs (only 3 credits of internship can count toward the major). Internships are strongly recommended for students who qualify.

Additional courses may be appropriate for a minor (for example, 892-275 American Social Welfare or 298-301 Economic and Social Security). Students should consult a faculty adviser.

Requirements for the Minor

Recommended Supporting Course
298-202 Macro Economic Analysis, 3 credits

Required Supporting Courses, 9 credits
778-101 American Government and Politics, 3 credits
835-202 Introduction to Public Policy, 3 credits
835-215 Introduction to Public Administration, 3 credits

Upper-Level Courses, 15 credits
835-315 Public and Nonprofit Management, 3 credits

One of these:
835-408 Public Policy Analysis, 3 credits
835-415 Public and Nonprofit Budgeting, 3 credits

Electives, choose three of these:
778-410 Intergovernmental Relations, 3 credits
820-415 Organizational and Personnel Psychology, 3 credits
835-301 Environmental Politics and Policy, 3 credits
835-306 Regulatory Policy and Administration, 3 credits
835-314 Administrative Law, 3 credits
835-344 Leadership in Organizations, 3 credits
835-402 Environmental and Resource Economics, 3 credits
835-406 State and Local Government, 3 credits
835-408 Public Policy Analysis, 3 credits
835-415 Public and Nonprofit Budgeting, 3 credits
835-452 Planning Theory and Methods, 3 credits
Social Change and Development

Interdisciplinary Major or Minor

Professors — Anthony Bait, Harvey J. Kaye, Craig A. Lockard, Lynn Walters.
Associate Professor — Larry Smith (chairperson).
Assistant Professors — Mark Everingham, Kim Nielsen.

A major in social change and development focuses on social processes and social problems as they are contained in systems, especially the highly interdependent world system. This perspective addresses the problem of why and how societies and cultures around the world change and the question of whether those changes promote justice, equity, democracy, and development of human potential. Social change and development stresses historical, comparative, and critical perspectives because understanding the present requires understanding the past, and understanding of our own lives and our own society requires understanding the world. Social change and development has a broad focus, enhanced by its philosophical and theoretical focus. This program thus offers wide-ranging educational challenges and provides students with widely applicable learning experiences useful for many career paths.

Social change and development is appropriate for individuals interested in graduate work in the social sciences, law school, journalism, international business, and a variety of careers related to community development, social justice, social and environmental activism, women’s issues, and other social issues. Graduates work in a wide range of careers including business, domestic and international development, education, helping professions, journalism, law, and criminal justice, library science, museum administration, 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, and sociology.

Majors select an area of emphasis from among the following:

- **American Social Issues**: Study is for those interested in social problems, public issues, social criticism, and strategies for change with respect to contemporary American society.
- **Global Studies**: Focuses on international politics, development, sociocultural change, and history, especially in relationship to the nations of the South or Third World. It orients students toward careers in foreign service, international business, or other international organizations, and for graduate study, and may be combined with the international studies certificate program.
- **Law and Social Change**: Explores the role of law in promoting or inhibiting social, political, and economic change in both the past and the present. It also encourages students to think critically about the relationship between law and justice. It is appropriate for students seeking admittance to law school, those interested in law-related careers, and students who wish to work in nonprofit and governmental agencies.
- **Women’s Studies**: Explores historical, comparative, and contemporary perspectives on women’s experiences. It is useful for students planning careers in social services, education, counseling and therapy, personnel management, community organizing, labor relations, religious service, or other fields in which issues of gender are important.

It is possible also to develop individualized emphases in consultation with the program adviser.

Students seeking an interdisciplinary major or minor in social change and development may choose to combine their programs with an appropriate disciplinary or with another interdisciplinary field of study. Among fields most relevant are anthropology, American Indian studies, business, communication processes, economics, education, ethnic studies, history, human development, international studies, journalism, political science, psychology, social work, sociology, urban and regional studies, and women’s studies.

### Requirements for the Major

**Supporting Courses, 15-23 credits**

- 448-100 History of the Modern World, 3 credits
- 352-105 Expository Writing, 3 credits
- One of these:
  - 156-100 Varieties of World Culture, 3 credits
  - 900-202 Introduction to Sociology, 3 credits
- Also, complete one of the following options A, B, or C:

#### Option A: Foreign Language, 14 credits

- Two years of a foreign language

#### Option B: Research Methods, 7 credits

- One of these:
  - 255-205 Social Science Statistics, 4 credits
  - 600-260 Introductory Statistics, 4 credits
- One of these:
  - 255-301 Foundations for Social Research, 3 credits
  - 255-302 Methods of Participant Observation and Interviewing, 3 credits

#### Option C: Personalized Supporting Courses, 6 credits

- In appropriate cases an individualized set of courses may be arranged. The courses must be submitted via change form to the Registrar’s Office.

**NOTE:** Additional supporting courses are required for each emphasis.

### Upper-Level Core, 12 credits

- 875-333 Social Change in Selected Areas, 3 credits
- (specific region changes with each offering)
- 875-360 Models and Social Change, 3 credits
- 875-361 Historical Perspectives on Social Change, 3 credits
- 875-470 The Senior Seminar in Social Change and Development, 3 credits (topics vary with each offering)

### Areas of Emphasis

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

- **American Social Issues**
- **Supporting Course, 3 credits**

  **Required:**
  - 448-206 History of the United States from 1865 to Present, 3 credits

  **Recommended supporting courses:**
  - 875-275 The Vietnam War in Historical Perspective, 3 credits
  - 900-203 Minority Groups, 3 credits

### Upper-Level Courses, 14 credits

- **Required:**
  - 875-362 Power and Change in America, 3 credits
  - 875-461 History, Politics, and Social Criticism, 3 credits

### Portfolio, 2 credits

- 875-302 Portfolio, 1 credit (may be repeated for credit)
Electives, choose 6 credits:
- 875-325 Law and Society, 3 credits
- 875-340 Women, Work and Family, 3 credits
- 875-497 Internship in Social Change and Development, 3-12 credits
- 875-498 Independent Study in Social Change and Development, 1-4 credits
- 900-303 Race and Ethnic Relations, 3 credits
- 900-304 Deviant Behavior, 3 credits
- 900-308 Sociology of the Family, 3 credits

**Global Studies**

**Supporting Course, 3 credits**

Required, choose one:
- 778-100 World Politics, 3 credits
- 875-250 Introduction to Global Studies, 3 credits

**Recommended supporting course:**
- 875-275 The Vietnam War in Historical Perspective, 3 credits

**Upper-Level Courses, 14 credits**

Required:
- 156-303 Political, Economic and Environmental Anthropology, 3 credits

One of these:
- 778-353 Politics of Developing Areas, 3 credits
- 778-360 International Relations, 3 credits

**Portfolio, 2 credits:**
- 875-302 Portfolio, 1 credit (may be repeated for credit)

Electives, choose 6 credits:
- 448-352 History of Modern China, 3 credits
- 448-354 History of Modern Southeast Asia, 3 credits
- 448-356 History of Africa, 3 credits
- 448-358 Aspects of Latin American History, 3 credits
- 875-333 Social Change in Selected Area (repeat offerings), 3 credits
- 875-345 Women, Race and Culture, 3 credits
- 875-351 International Organizations: Policies and Practices, 3 credits
- 875-497 Internship in Social Change and Development, 3-12 credits
- 875-498 Independent Study in Social Change and Development, 1-4 credits

**Law and Social Change**

**Supporting Course, 3 credits**

Required:
- 778-101 American Government and Politics, 3 credits

**Recommended supporting courses:**
- 736-102 Problems in Ethics, 3 credits
- 875-230 Law and the Judicial Process, 3 credits

**Upper-Level Courses, 14 credits**

Required:
- 875-320 Constitutional Law, 3 credits
- 875-325 Law and Society, 3 credits

**Portfolio, 2 credits:**
- 875-302 Portfolio, 1 credit (may be repeated for credit)

Electives, choose 6 credits:
- 448-403 Political and Social History of the Modern U.S. II, 3 credits
- 736-326 Philosophy, Politics and Law, 3 credits
- 778-410 Intergovernmental Relations, 3 credits
- 835-314 Administrative Law, 3 credits
- 835-378 Environmental Law, 3 credits
- 875-348 Women and the Law, 3 credits
- 875-362 Power and Change in America, 3 credits
- 875-461 History, Politics and Social Criticism, 3 credits
- 875-497 Internship in Social Change and Development, 3-12 credits

**Women's Studies**

**Supporting Course, 3 credits**

Required:
- 875-241 Introduction to Women's Studies, 3 credits

**Upper-Level Courses, 14 credits**

Required:
- 448-380 Women in the United States: Historical Perspectives, 3 credits
- 875-345 Women, Race and Culture, 3 credits

**Portfolio, 2 credits:**
- 875-302 Portfolio, 1 credit (may be repeated for credit)

Electives, choose 6 credits:
- 875-340 Women, Work and Family, 3 credits
- 875-348 Women and the Law, 3 credits
- 875-375 Women, Politics and Social Change, 3 credits
- 875-437 Feminist Theory, 3 credits
- 875-497 Internship in Social Change and Development, 3-12 credits
- 875-498 Independent Study in Social Change and Development, 1-4 credits

**Individualized**

Designed for students with very specific interests or desire for more general liberal arts education. Requires 14 credits of upper-level work and necessary prerequisites of supporting courses.

**Upper-Level Courses, 14 credits**

**Portfolio, 2 credits:**
- 875-302 Portfolio, 1 credit (may be repeated for credit)

Electives, choose 12 credits (at least two of the elective courses must have the 875-prefix):
- 156-303 Political, Economic and Environmental Anthropology, 3 credits
- 156-304 Family, Kin, and Community, 3 credits
- 156-320 Myth, Ritual and Religion, 3 credits
- 298-307 History of Economic Thought, 3 credits
- 778-312 Community Politics, 3 credits
- 778-360 International Relations, 3 credits
- 835-378 Environmental Law, 3 credits
- 875-303 Criminal Justice Process, 3 credits
- 875-320 Constitutional Law, 3 credits
- 875-325 Law and Society, 3 credits
- 875-333 Social Change in a Selected Area, 3 credits
- 875-340 Women, Work and Family, 3 credits
- 875-345 Women, Race and Culture, 3 credits
- 875-348 Women and the Law, 3 credits
- 875-351 International Organizations: Policies and Practices, 3 credits
- 875-362 Power and Change in America, 3 credits
- 875-375 Women, Politics and Social Change, 3 credits
- 875-437 Feminist Theory, 3 credits
- 875-461 History, Politics and Social Criticism, 3 credits
- 875-478 Distinction in the Major, 3 credits
- 875-484 Senior Honors Project, 3 credits
- 875-497 Internship in Social Change and Development, 3-12 credits
- 875-498 Independent Study in Social Change and Development, 1-4 credits
- 900-302 Class, Status and Power, 3 credits
- 900-303 Race and Ethnic Relations, 3 credits
- 900-304 Deviant Behavior, 3 credits
- 900-307 Social Theory, 3 credits
- 900-308 Sociology of the Family, 3 credits
- 900-310 Urban Sociology, 3 credits
- 900-375 Sociology of Sexual and Intimate Relations, 3 credits
- 900-404 Criminology, 3 credits
Requirements for the Minor

Supporting Courses, 6 credits
448-100 History of the Modern World, 3 credits

One of these:
156-100 Varieties of World Culture, 3 credits
900-202 Introduction to Sociology, 3 credits

Upper-Level Core, 12 credits

Required:
875-333 Social Change in Selected Areas, 3 credits
875-350 Models and Social Change, 3 credits
875-351 Historical Perspectives on Social Change, 3 credits
875-470 The Senior Seminar in Social Change and Development, 3 credits (topics vary with each offering)

Portfolio:
Portfolio is optional, but highly recommended for minors.
875-302 Portfolio, 1 credit

Social Work

Professional Major

Associate Professors — Ann McLean, Judith Martin.
Assistant Professor — Kevin Roeder.
Lecturers — Anne Kok, Candy Conard, Linda Cates.

Social work is an exciting and dynamic profession whose practitioners take pride in helping others. The major in social work, leading to the Bachelor of Social Work (B.S.W.) degree prepares a graduate for a career in human services working with a broad range of individuals, families, organizations, and communities. Graduates will be able to serve in a variety of social work roles including direct practice with clients, advocacy, and program and policy development.

Graduates of the UW-Green Bay social work program secure positions in programs serving populations that include the elderly, children and their families, persons challenged by developmental and other disabilities, juvenile and adult offenders, persons experiencing mental or physical health issues, and other groups identified in this ever evolving field.

The social work professional program has full accreditation from the Council on Social Work Education. A B.S.W. from UW-Green Bay allows the graduate to obtain state certification and provides a broad range of employment opportunities.

Majors may elect to enroll in the child welfare sequence, preparing for a career in child welfare practice. Stipends for practicum placements in public and tribal child welfare agencies are available selectively to qualified students.

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. Application materials are available from the Social Work office.

To apply to the B.S.W. degree program, students must first complete 27 credits, including two supporting courses for the major, with an overall cumulative grade point average of at least 2.5. Applicants must also have demonstrated an interest in the profession by volunteering in the field or through relevant employment, as indicated by letters of reference. A criminal background check is part of the application process.

Prospective social work majors should seek early advising from social work faculty.

Requirements for the Major

Supporting Courses, 36-37 credits
Choose one (students are strongly encouraged to take 255-265):
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

Required:
255-301 Foundations for Social Research, 3 credits
298-301 Economic and Social Security, 3 credits
352-105 Expository Writing, 3 credits
478-102 Introduction to Human Biology, 3 credits
481-210 Introduction to Human Development, 3 credits
778-101 American Government and Politics, 3 credits
778-202 Introduction to Public Policy, 3 credits
892-275 American Social Welfare, 3 credits
900-308 Sociology of the Family, 3 credits

And one course each from ethnic studies courses and women’s studies courses, 6 credits
Recommended, one of these:
481-331 Infancy and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
481-342 Cross Cultural Human Development, 3 credits
481-343 Adulthood and Aging, 3 credits

Upper-Level Courses, 36 credits
892-300 Field Experiences in a Social Service Agency, 1 credit
892-305 The Social Work Profession, 3 credits
892-313 Social Work Skills Lab I, 1 credit
892-323 Social Work Skills Lab II, 1 credit
892-370 Social Work Methods I, 3 credits
892-371 Human Behavior and the Social Environment, 3 credits
892-402 Field Practicum I, 3 credits
892-403 Field Practicum II, 5 credits
892-411 Social Work Methods II, 3 credits
892-413 Social Work Skills Lab III, 1 credit
892-420 Social Work Methods III, 3 credits
892-423 Social Work Skills Lab IV, 1 credit
892-430 Social Policy Analysis, 3 credits
892-460 Program Evaluation, 3 credits

Child Welfare Sequence, 12 credits
481-331 Infancy and Early Childhood, 3 credits
481-332 Middle Childhood and Adolescence, 3 credits
892-351 Child Welfare Services and Programs, 3 credits
892-451 Child Welfare Practice, 3 credits
In addition, for students pursuing the child welfare sequence, 892-402 and 403 involve practicum placement in an agency that serves children and families.

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**Sociology**

**Disciplinary Minor**

Professors — Harvey J. Kaye.
Associate Professor — Ray Hutchison (chairperson).
Assistant Professor — Jane Bock.

Sociology is the systematic study of social organization and social life in society. It uses both scientific and humanistic approaches to understand social behavior and social systems. Topics studied range from the family, minority groups, deviant behavior, and crime, to gender, ethnicity, social class, collective behavior, and power.

Sociology students learn a variety of research methods and social theories used to study both large-scale and small-scale patterns of social relationships and processes by which these patterns change.

A minor in sociology will provide additional breadth of perspective for students with interdisciplinary majors in urban and regional studies, social change and development, human development, and business administration. It also provides good preparation for students going on to graduate work in programs such as sociology, social work, nursing, psychology, and other interdisciplinary social science programs.

**Requirements for the Minor**

**Supporting Courses, 6-7 credits**
900-202 Introduction to Sociology, 3 credits

One of these (students are strongly encouraged to take 255-265):
216-215 Introduction to Business Statistics, 3 credits
255-265 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

**Upper-Level Courses, 12 credits**
255-301 Foundations for Social Research, 3 credits

One of these:
778-340 Political Theory, 3 credits
875-360 Models and Social Change, 3 credits
900-307 Social Theory, 3 credits

**Electives, choose 6 credits:**
875-362 Power and Change in America, 3 credits
900-303 Race and Ethnic Relations, 3 credits
900-304 Deviant Behavior, 3 credits
900-308 Sociology of the Family, 3 credits
900-310 Urban Sociology, 3 credits
900-404 Criminology, 3 credits
900-483 Selected Topics, 1-4 credits
900-498 Independent Study, 1-4 credits
Spanish

Disciplinary Major or Minor

Associate Professor — Cristina Ortiz.
Assistant Professors — Sonia Maruenda, Ramon E. Soto-Crespo.

The Spanish 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 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 major is also excellent preparation for graduate study. Certainly, 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 are strongly encouraged to pursue 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.

Students majors in Spanish will also choose an interdisciplinary minor. Students interested in the humanities usually choose the interdisciplinary program in humanistic studies; students interested in fine arts or the performing arts usually choose communication and the arts. Depending on their preferences and goals, students may choose other interdisciplinary programs appropriate, such as human development or social change and development. Students desiring teacher preparation in Spanish must combine their studies in Spanish with the secondary education minor.

Students who begin Spanish study at UW-Green Bay should enroll in Introduction to 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 adviser.

Retractive or Advanced Placement Credit

Students who have taken Spanish in high school or who acquired a knowledge of Spanish elsewhere may earn up to 14 additional credits by completing a Spanish course beyond the 101 level. With a grade of "B" or better, Spanish credit will be given for all Spanish courses 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 225, Intermediate Conversation and Composition, with a grade of "B" will receive 14 retractive credits for Spanish 101, 102, 201, and 202 in addition to the three credits for Spanish 225; students who complete the course with a "C" will receive seven retractive credits for Spanish 101, 102, 201, and 202 in addition to the three credits for Spanish 225.

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

Requirements for the Major

Supporting Courses, 6 credits

908-202 Intermediate Spanish Language II, 3 credits
908-225 Intermediate Spanish Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits

908-325 Advanced Spanish Conversation and Composition, 3 credits
908-329 Representative Spanish and Latin American Authors, 3 credits
908-345 Advanced Spanish Grammar, 3 credits
908-438 Major Spanish and Latin American Writers, 3 credits

One of these:

908-358 Latin America Today, 3 credits
908-359 The Cultures of the Americas, 3 credits

One of these:

908-360 Spain Today, 3 credits
908-361 The Cultures of Spain, 3 credits

Electives, 6 credits:

Electives may be chosen from the courses listed in Set 1 and Set 2. However, only 3 credits from Set 2 will count towards the Spanish major.

Set 1

908-351 Major Spanish and Latin American Fiction, 3 credits
908-358 Latin America Today, 3 credits
908-359 The Cultures of the Americas, 3 credits
908-360 Spain Today, 3 credits
908-361 The Cultures of Spain, 3 credits
908-362 Travel Course: Spain, 3 credits
908-363 Travel Course: Mexico, 2 credits
908-372 Spanish Phonetics, 3 credits
908-485 Study Abroad: Spain and Latin America, 3-15 credits
908-498 Independent Study, 1-4 credits

Set 2

416-370 Geography of South America, 3 credits
448-358 Aspects of Latin American History, 3 credits
875-333 Social Change in a Selected Area: Latin America, 3 credits
908-359 Spanish and Latin American Cinema, 3 credits

Some upper-level courses may be repeated for credit when course content varies. See adviser.

Requirements for the Minor

Supporting Courses, 6 credits

908-202 Intermediate Spanish Language II, 3 credits
908-225 Intermediate Spanish Conversation and Composition, 3 credits

Upper-Level Courses, 12 credits

908-325 Advanced Spanish Conversation and Composition, 3 credits
908-329 Representative Spanish and Latin American Authors, 3 credits

One of these:

908-358 Latin America Today, 3 credits
908-359 The Cultures of the Americas, 3 credits
908-360 Spain Today, 3 credits
908-361 The Cultures of Spain, 3 credits

Choose 3 credits:

908-345 Advanced Spanish Grammar, 3 credits
908-351 Major Spanish and Latin American Fiction, 3 credits
908-355 Spanish and Latin American Cinema, 3 credits
908-358 Latin America Today, 3 credits
908-359 The Cultures of the Americas, 3 credits
908-360 Spain Today, 3 credits
908-361 The Cultures of Spain, 3 credits
908-362 Travel Course: Spain, 3 credits
908-363 Travel Course: Mexico, 2 credits
908-372 Spanish Phonetics, 3 credits
Theatre

Disciplinary Major or Minor

Professor — Jeffrey Entwistle.
Associate Professor — Laura Riddle (chairperson).
Assistant Professors — Michael Ingraham, John Mariano.
Lecturer — Denise Carlson-Gardner.
Other Instructional Staff — Eugenia Erdmann, Mantha Garvey.

Students pursuing the bachelor degree in theatre will choose one of four areas of emphasis:

- Performance (acting/directing)
- Design/Technical Theatre
- Musical Theatre
- 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 and musical theatre 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. Theatre majors must complete an interdisciplinary minor, and the arts and society and arts management emphases within the communication and arts minor provide an exceptionally strong undergraduate preparation in theatre.

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 four mainstage (faculty directed) productions each year. Studio (student directed and designed) productions provide numerous additional opportunities for involvement. Casting and 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 Festival, a national organization in support of quality university theatre.

Campus facilities in Theatre Hall include the 450-seat proscenium University Theatre, the black-box Experimental Theatre, acting and dance studios, a CAD design lab and scene and costume shops. The Weidner Center for the Performing Arts includes as additional performing arts spaces the 2,000-seat Coffin Family Hall, Studio One (used for dance classes) and Studio 2, a 100-seat flexible performance and classroom space.

In addition to classroom and performance spaces, the Weidner Center provides numerous master class, internship and work opportunities. Discounted "rush" tickets are available to students for most events and master classes with visiting artists are regularly arranged. Backstage work for touring companies and box office positions are frequently made available to students.

UW-Green Bay theatre graduates typically pursue internships and jobs in the entertainment industry. Students are encouraged to pursue such opportunities in the summer before graduation and advanced course work in audition and portfolio prepares them for the competitive challenges ahead.

Requirements for the Major

(Vary with the area of emphasis)

All theatre majors are required to pass the Comprehensive Play Reading Examination by the spring semester of the senior year.

Areas of Emphasis

- Performance
- Supporting Courses, 22 credits
  - Acting core, 9 credits:
    - 915-131 Acting I, 3 credits
    - 915-231 Acting II, 3 credits
    - 915-233 Voice for the Actor I, 3 credits
  - Shop practicum, 2 courses:
    - 915-238 Production Practicum: Scene Shop, 1 credit
    - 915-239 Production Practicum: Costume Shop, 1 credit
  - Theatre practicum, choose 1 credit:
    - 915-235 Production Practicum: Crews, 1 credit
    - 915-236 Production Practicum: Cost Member, 1 credit
    - 915-238 Production Practicum: Scene Shop, 1 credit
    - 915-239 Production Practicum: Costume Shop, 1 credit
  - Technical theatre, 6 credits:
    - 915-221 Theatre Production Techniques I: Stagecraft, 3 credits
    - 915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits
  - Dance core, choose 4 credits:
    - 915-128 Jazz Dance I, 1 credit
    - 915-137 Ballet I, 1 credit
    - 915-138 Ballet II, 2 credits
    - 915-145 Modern Dance I, 1 credit
    - 915-161 Tap Dance I, 1 credit
    - 915-228 Jazz Dance II, 2 credits
    - 915-245 Modern Dance II, 2 credits
    - 915-261 Tap Dance II, 1 credit
  - Upper-Level Courses, 30 credits
    - Acting/directing, 9 credits:
      - 915-305 Audition Techniques for the Actor, 3 credits
      - 915-331 Acting III, 3 credits
      - 915-351 Directing I, 3 credits
    - Shop practicum, 2 courses:
      - 915-338 Production Practicum: Scene Shop, 1 credit
      - 915-339 Production Practicum: Costume Shop, 1 credit
    - Theatre practicum, choose 1 credit:
      - 915-335 Production Practicum: Crews, 1 credit
      - 915-336 Production Practicum: Cost Member, 1 credit
      - 915-338 Production Practicum: Scene Shop, 1 credit
      - 915-339 Production Practicum: Costume Shop, 1 credit
  - History/criticism/literature, 12 credits:
    - 915-309 Theatre History I, 3 credits
    - 915-310 Theatre History II, 3 credits
    - 915-311 Theatre History III, 3 credits

One of these:
- 351 Shakespeare, 3 credits
- 493-350 Interdisciplinary Study of Great Works, 3 credits

Other dramatic literature courses may be selected with the assistance of a faculty adviser.

Design, choose 6 credits:
- 915-321 Scene Design, 3 credits
- 915-322 Costume Design, 3 credits
- 915-323 Stage Lighting, 3 credits
- 915-325 Three-Dimensional Stage Make-up, 3 credits
- 915-424 Advanced Technical Practices, 3 credits
Electives to strengthen upper-level preparation (suggested):
915-352 Directing II, 3 credits
915-405 Theatre Management, 3 credits
915-498 Independent Study, 1-4 credits

**Design/Technical Theatre**

**Supporting Courses, 22 credits**

Design/technical theatre, 12 credits:
915-220 Stage Management, 3 credits
915-251 Theatre Production Techniques I: Stagecraft, 3 credits
915-252 Theatre Production Techniques II: Costume/Make-up, 3 credits

One of these:
168-165 Drawing, 3 credits
168-166 Design Methods, 3 credits
951-210 Drawing Systems for the Designer, 3 credits

**Shop practicum, 2 courses:**
915-238 Production Practicum: Scene Shop, 1 credit
915-239 Production Practicum: Costume Shop, 1 credit

**Theatre practicum, choose 1 credit:**
915-235 Production Practicum: Crews, 1 credit
915-256 Production Practicum: Cast Member, 1 credit
915-258 Production Practicum: Scene Shop, 1 credit
915-259 Production Practicum: Costume Shop, 1 credit

**Acting core, 3 credits:**
915-131 Acting I, 3 credits

**Dance core, choose 4 credits:**
915-128 Jazz Dance I, 1 credit
915-137 Ballet I, 1 credit
915-145 Modern Dance I, 1 credit
915-161 Tap Dance I, 1 credit
915-340 Dance History, 3 credits

**Upper-Level Courses, 30 credits**

Design/technical theatre/directing, 12 credits:
915-351 Directing I, 3 credits

Three of these:
915-321 Scene Design, 3 credits
915-322 Costume Design, 3 credits
915-323 Stage Lighting, 3 credits
915-325 Three-Dimensional Stage Make-Up, 3 credits

**History/literature, 12 credits:**
915-309 Theatre History I, 3 credits
915-310 Theatre History II, 3 credits
915-311 Theatre History III, 3 credits

One of these:
351-431 Shakespeare, 3 credits
493-330 Interdisciplinary Study of Great Works, 3 credits

Other dramatic literature courses may be selected with the assistance of a faculty adviser.

**Shop practicum, 2 courses:**
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit

**Theatre practicum, choose 1 credit:**
915-335 Production Practicum: Crews, 1 credit
915-336 Production Practicum: Cast Member, 1 credit
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit

Electives, choose 3 credits:
915-405 Theatre Management, 3 credits
915-423 Advanced Stage Lighting, 3 credits
915-424 Advanced Technical Practices, 3 credits
915-497 Internship, 3 credits
915-498 Independent Study, 1-4 credits

Note: Students may take the other upper-level design course not selected above as three-credit elective.

**Musical Theatre**

**Supporting Courses, 35 credits**

Music core, 7-9 credits:
670-115 Ear Training and Sight Singing I, 1 credit
670-151 Materials and Values in Music I, 3 credits
672-261/262 Concert Choir/University Choir, 2 credits
672-045 Elementary Voice, 1 credit
672-xxx Piano, 2 credits (may audition out of course)

**Acting core, 12 credits:**
915-131 Acting I, 3 credits
915-231 Acting II, 3 credits
915-233 Voice for the Actor I, 3 credits
915-190 First Year Musical Theatre Applied Voice I, 1 credit
915-289 Second Year Musical Theatre Applied Voice I, 1 credit
915-290 Second Year Musical Theatre Applied Voice II, 1 credit

Dance core, 6 credits:
915-128 Jazz Dance I, 1 credit
915-137 Ballet I, 1 credit
915-161 Tap Dance I, 1 credit
915-228 Jazz Dance II, 2 credits
915-261 Tap Dance II, 1 credit

Technical theatre core, 6 credits:
915-221 Theatre Production Techniques I: Stagecraft, 3 credits
915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits

**Shop practicum, 2 courses:**
915-238 Production Practicum: Scene Shop, 1 credit
915-239 Production Practicum: Costume Shop, 1 credit

**Upper-Level Courses, 24 credits**

Acting/directing, 16 credits:
915-305 Audition Techniques for the Actor, 3 credits
915-351 Directing I, 3 credits
915-389 Third Year Musical Theatre Voice I, 1 credit
915-390 Third Year Musical Theatre Voice II, 1 credit
915-489 Fourth Year Musical Theatre Voice I, 1 credit
915-490 Fourth Year Musical Theatre Voice II, 1 credit

Dance, 6 credits:
915-328 Jazz Dance III, 2 credits
915-361 Tap III, 1 credit
915-440 Choreography, 3 credits

Theatre history, 6 credits:
915-310 Theatre History II, 3 credits
915-311 Theatre History III, 3 credits

**Shop practicum, 2 credits:**
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit

(may be repeated)

915-339 Production Practicum: Costume Shop, 1 credit

(may be repeated)
Theatre Studies
The theatre studies emphasis has been developed as an ideal second major. If this is the only major that a student chooses, then an interdisciplinary minor in Communication and the Arts is also recommended.

Supporting Courses, 15 credits
915-131 Acting I, 3 credits
915-221 Theatre Production Techniques I: Stagecraft, 3 credits
915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits
915-231 Acting II, 3 credits

Dance core, choose 1 credit:
915-128 Jazz Dance I, 1 credit
915-137 Ballet I, 1 credit
915-145 Modern Dance I, 1 credit
915-161 Tap Dance I, 1 credit

Shop practicum, 2 courses:
915-238 Production Practicum: Scene Shop, 1 credit
915-239 Production Practicum: Costume Shop, 1 credit

Upper-Level Courses, 24 credits
History, choose 6 credits:
915-309 Theatre History I, 3 credits
915-310 Theatre History II, 3 credits
915-311 Theatre History III, 3 credits

Required:
915-323 Stage Lighting, 3 credits
915-351 Directing I, 3 credits

Shop practicum, 2 credits:
915-338 Production Practicum: Scene Shop, 1 credit (may be repeated)
915-339 Production Practicum: Costume Shop, 1 credit (may be repeated)

Theatre practicum, choose 1 credit:
915-335 Production Practicum: Crews, 1 credit
915-336 Production Practicum: Cast Member, 1 credit
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit

One of these:
915-321 Scene Design, 3 credits
915-322 Costume Design, 3 credits
915-325 Three-Dimensional Stage Make-up, 3 credits
915-424 Advanced Technical Practices, 3 credits

Electives, 6 credits:
Any six credits from 300- or 400-level theatre courses

Requirements for the Minor

Theatre
Supporting Courses, 9 credits
915-131 Acting I, 3 credits
915-221 Theatre Production Techniques I: Stagecraft, 3 credits
915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits

Upper-Level Courses, 12 credits
Directing, choose 3 credits:
915-351 Directing I, 3 credits
915-352 Directing II, 3 credits

History/criticism, choose 3 credits:
915-309 Theatre History I, 3 credits
915-310 Theatre History II, 3 credits
915-311 Theatre History III, 3 credits

Design/technical theatre, choose 3 credits:
915-321 Scene Design, 3 credits
915-322 Costume Design, 3 credits
915-323 Stage Lighting, 3 credits

Theatre practicum, choose 3 credits:
915-335 Production Practicum: Crews, 1 credit
915-336 Production Practicum: Cast Member, 1 credit
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit

Dance
Supporting Courses, 14 credits
915-131 Acting I, 3 credits
915-137 Ballet I, 1 credit
915-138 Ballet II, 2 credits
915-145 Modern Dance I, 1 credit
915-245 Modern Dance II, 2 credits
915-128 Jazz Dance I, 1 credits
915-228 Jazz Dance II, 2 credits
915-161 Tap Dance I, 1 credit
915-261 Tap Dance II, 1 credit

Upper-Level Courses, 10 credits
915-328 Jazz Dance III, 2 credits
915-340 Dance History, 2 credits
915-361 Tap Dance III, 1 credit
913-440 Choreography, 3 credits

Theatre practicum, choose 1 credit:
915-335 Production Practicum: Crews, 1 credit
915-336 Production Practicum: Cast Member, 1 credit
915-338 Production Practicum: Scene Shop, 1 credit
915-339 Production Practicum: Costume Shop, 1 credit
Urban and Regional Studies

Interdisciplinary Major or Minor

Professors — Ray Hutchison, Kumar Kangayappan, William Lautsch (chairperson), Ismail Shariff.
Associate Professor — Ronald Baba.
Assistant Professors — Marcelo Cruz, Thomas Nesslein, Georgeann Wilcox-Doenges.

Urban and regional studies recognizes that each of us identifies with certain places in our world and that the character of these places is a blend of human and biophysical elements. Urban and regional studies seeks to understand the various spatial, social, economic, political and biophysical activities of individuals and groups within urban and rural places and human settlements, and their linkages with the rest of the world.

The courses in urban and regional studies prepare students to become educated world citizens through a solid foundation of core courses emphasizing skills and tools subjects, broad introductory courses at the freshman and sophomore level, and more demanding courses at the junior and senior level which explore topics at a greater depth.

Graduates are expected to demonstrate effective written and oral communication skills; make use of other media for effective communication such as cartographic, statistical or geographic information science skills; read, analyze, and critically evaluate written material, maps, numerical data and information acquired in the field, and work effectively on individual and group projects. These objectives are accomplished through larger lecture/discussion courses, computer assisted instruction, smaller discussion courses, seminars, field and travel courses, and community based internships.

Faculty in the program bring together urban and regional perspectives from a variety of disciplines, including architecture, demography, economics, ethnic studies, physical and human geography, political science, psychology and sociology. Faculty have traveled widely and have lived and done research in many other countries as well as the United States. In addition to teaching in the program, faculty are active in applied work in northeast Wisconsin, including consulting for government and international agencies, and researching in their professional fields of study.

Internships in this program are especially encouraged, as are applied research projects under a professor’s direction. Internship experiences have proven to be an important enhancement to graduate school applications, and they also increase opportunities for employment after graduation.

Students may work with an adviser to select a general program for their major or a more specialized program of study in the following areas:

- **Area studies** explores a variety of physical, cultural, and political regions. Course work includes world regions and concepts, geography of South America, geography of U.S. and Canada, analysis of northern lands, and analysis of South Asia. Foreign study trips are encouraged.
- **Community economic development** focuses on micro and macro issues in economic development and community planning, land use controls, economic theory, and community economic development.
- **Environmental design** offers students an opportunity to work with local planning agencies on design projects. Course work includes urban and regional planning, environmental psychology, and environmental design studio.

- **Ethnic studies** focuses on the experiences of population sub-groups in urban and regional areas. Courses include minority groups, race and ethnic relations, Hispanic American communities, Asian American communities, and economics of discrimination.

- **Urban and regional planning** emphasizes planning theory and methods and requires internship work with local planning agencies. Courses include urban and regional planning, planning theory and methods, urban and regional economics, and state and local government.

Since urban and regional studies focuses on the problems, possibilities and promise of life for people and places on the earth, students considering this major must be interested in pursuing this broad theme. Students who are interested in places near and far, who enjoy travel, and who are drawn to reading maps will find this program appealing.

This interdisciplinary major also provides excellent preparation for graduate study in master's and doctoral programs such as architecture, geography, political science, public administration, public policy, sociology, urban and regional planning, urban studies, economic development and related fields.

The urban and regional studies major offers the skills and knowledge base for a wide range of challenging and rewarding careers in both the private and public sectors, including architecture, community organization, economic development, education, journalism, marketing, real estate, social services, and urban and regional planning.

The following list represents a few of the kinds of career titles for urban and regional studies majors: community/county/city planner, neighborhood planner, urban and regional planner, architect, land-use planner, water resources manager, landscape architect, city manager, civil engineer, environmental engineer, director of community or economic development, geographer, transportation planner, land acquisition and development planner, zoning officer.

**Requirements for the Major**

**Supporting Courses, 18-19 credits**

255-301 Foundations for Social Research, 3 credits
299-202 Macro Economic Analysis, 3 credits
416-250 Designs of Geographic Information, 3 credits
951-100 Introduction to Urban Studies, 3 credits
951-102 World Regions and Concepts: A Geographic Analysis, 3 credits

**One of these:**

216-215 Introduction to Business Statistics, 3 credits
253-205 Social Science Statistics, 4 credits
600-260 Introductory Statistics, 4 credits

**Recommended Competency Courses**

246-133 Fundamentals of Public Address, 3 credits
352-105 Expository Writing, 3 credits
778-101 American Government and Politics, 3 credits
900-202 Introduction to Sociology, 3 credits

**Upper-Level Courses, 12 credits**

Urban and Regional Studies core:

416-341 The City and Its Regional Context, 3 credits
951-305 Urban Politics and Policy, 3 credits
951-310 Urban Sociology, 3 credits

Senior capstone course:

951-430 Seminar in Ethics and Public Affairs, 3 credits
Areas of Emphasis, 15-18 credits
Students must complete requirements in one of the following areas of emphasis. Additional supporting courses may be required.

■ General Program
Choose 15 credits:
416-342 Settlement Geography, 3 credits
416-370 Geography of South America, 3 credits
778-312 Community Politics, 3 credits
778-410 Intergovernmental Relations, 3 credits
820-390 Environmental Psychology, 3 credits
835-406 State and Local Government, 3 credits
900-303 Race and Ethnic Relations, 3 credits
951-309 Urban and Regional Economic Theory, 3 credits
951-313 The City Through Time and Space, 3 credits
951-323 Asian Americans, 3 credits
951-324 Latino Communities in the United States, 3 credits
951-497 Internship, 3 credits

Internship or Laboratory Course
An optional three-credit internship or laboratory course may be substituted for one elective course.
951-461 Urban and Regional Studies Laboratory, 3 credits
951-497 Internship, 3 credits

■ Area Studies
Choose five courses, 15 credits:
416-342 Settlement Geography, 3 credits
416-370 Geography of South America, 3 credits
416-371 Geography of the United States and Canada, 3 credits
778-312 Community Politics, 3 credits (strongly recommended)
951-309 Urban and Regional Economic Theory, 3 credits
951-377 Analysis of Northern Lands, 3 credits
951-392 Analysis of South Asia, 3 credits
951-412 Urban and Regional Planning, 3 credits

■ Community Economic Development
Choose five courses, 15 credits:
298-302 Intermediate Macro Economic Theory, 3 credits
778-312 Community Politics, 3 credits (strongly recommended)
835-323 Land Use Controls, 3 credits
951-309 Urban and Regional Economic Theory, 3 credits
951-342 Land Resources: Approaches to Urban and Regional Development, 3 credits
951-497 Internship, 3 credits

■ Environmental Design
Required, 15 credits:
820-390 Environmental Psychology, 3 credits
951-436 Environmental Design Studio I, 3 credits
951-437 Environmental Design Studio II, 3 credits
951-438 Environmental Design Studio III, 3 credits
951-439 Environmental Design Studio IV, 3 credits

■ Ethnic Studies
Supporting Courses, 6 credits
448-207 Roots of Black America, 3 credits
900-203 Minority Groups, 3 credits

Required, 15 credits:
403-374 Wisconsin American Indian Ethnology, 3 credits
900-303 Race and Ethnic Relations, 3 credits
951-323 Asian Americans, 3 credits
951-324 Latino Communities in the United States, 3 credits
951-497 Internship, 3 credits

■ Urban and Regional Planning
Choose six courses, 18 credits:
416-350 Geographical Information Systems, 3 credits
778-312 Community Politics, 3 credits (strongly recommended)
778-410 Intergovernmental Relations, 3 credits (strongly recommended)
835-322 Environmental Planning, 3 credits
835-451 Advanced Policy Analysis, 3 credits
951-313 The City Through Time and Space, 3 credits
951-412 Urban and Regional Planning, 3 credits
951-497 Internship, 3 credits

Requirements for the Minor
Supporting Courses, 6 credits
One of these:
216-215 Introduction to Business Statistics, 3 credits
255-205 Social Science Statistics, 4 credits
416-250 Displays of Geographic Information, 3 credits
600-260 Introductory Statistics, 4 credits

One of these:
951-100 Introduction to Urban Studies, 3 credits
951-102 World Regions and Concepts: A Geographic Analysis, 3 credits

Upper-Level Courses, 12 credits
Core courses, choose two of these:
416-341 The City and Its Regional Context, 3 credits
951-365 Urban Politics and Policy, 3 credits
951-310 Urban Sociology, 3 credits

Two of these:
416-342 Settlement Geography, 3 credits
820-390 Environmental Psychology, 3 credits
951-309 Urban and Regional Economic Theory, 3 credits
951-313 The City Through Time and Space, 3 credits
951-323 Asian Americans, 3 credits
951-324 Latino Communities in the United States, 3 credits
951-342 Land Resources: Approaches to Urban and Regional Development, 3 credits
951-351 Transportation and the City, 3 credits
951-370 Geography of South America, 3 credits
951-377 Analysis of Northern Lands, 3 credits
951-392 Analysis of South Asia, 3 credits
951-412 Urban and Regional Planning, 3 credits
Women's Studies

Interdisciplinary Minor

Professor — Lynn Walter.
Associate Professors — Francis Carleton (co-chairperson), Tracy Luchetta (co-chairperson), Sarah Meredith, E. Nicole Meyer, Ilene Noppe, Laura Riddle, Sandra M. Stokes.
Assistant Professors — Angela Bauer-Dantoin, Jane Bock, Catherine Henze, Kim Nielsen, Lisa Poupart.

Women's studies explores women's past and present contributions to societies as persons, creators, and thinkers. It also explores the cultural, racial, and economic diversity of women's experiences as well as the scholarship concerned with the factors that affect women's lives. The minor prepares students to think critically about issues with which they will be faced all of their lives. Thus, women's studies can be seen as an essential component of a liberal arts education.

Women's studies draws upon methods and content from a wide range of disciplines, including anthropology, literature and the arts, biology, economics, history, political science, psychology, religion, and sociology. It seeks to extend students' intellectual development by helping them to understand women's accomplishments and capabilities, and by looking beyond the limits of traditional gender-differentiated roles.

Any student may elect women's studies as a minor in addition to a disciplinary or interdisciplinary major. The minor is excellent preparation for further study in law as well as for graduate programs in women's studies, psychology, social work, literature, and education. Graduates with women's studies minors are working in a variety of fields, including business, child and family services, education, journalism, and social service administration.

Requirements for the Minor

Supporting Course, 3 credits
875-241 Introduction to Women's Studies, 3 credits

Upper-Level Courses, 15 credits
Core courses, choose two of these:
242-477 Women as Creative Agents, 3 credits
448-380 Women in the United States: Historical Perspectives, 3 credits
481-336 Gender Across the Lifespan, 3 credits
875-345 Women, Race and Culture, 3 credits
875-437 Feminist Theory, 3 credits

Electives, choose three courses from the core courses listed above or from the following:
351-338 World Literature: French Women's Autobiography, 3 credits
478-324 The Biology of Women, 3 credits
820-401 Psychology of Women, 3 credits
875-340 Women, Work and Family, 3 credits
875-348 Women and the Law, 3 credits
875-375 Women, Politics and Social Change, 3 credits

Related and Recommended Courses:
242-272 Women and the Arts, 3 credits
351-206 Women in Literature, 3 credits
478-206 Fertility, Reproduction and Family Planning, 3 credits
PREPROFESSIONAL PROGRAMS OF STUDY

Architecture

Preprofessional Program

Architecture is a profession which requires individuals to complete a certification process before they call themselves architects and engage in contracts. The procedure entails completion of an accredited professional degree in architecture, a period of employment supervised by a licensed architect, and successful completion of a set of examinations. The University of Wisconsin System program leading to an accredited degree in architecture is the Master of Architecture program at UW-Milwaukee.

UW-Green Bay students have two paths to the Master of Architecture:
— they may complete two years at UW-Green Bay (about 55 credits) and apply for transfer to the Level 2: Architectural Studies program at UW-Milwaukee to complete requirements for entry into the Master of Architecture program, or
— they may complete an undergraduate degree at UW-Green Bay and apply for graduate admission to UW-Milwaukee or to another state institution with an accredited Master of Architecture program.

The second option—completion of an undergraduate degree at UW-Green Bay—has important advantages. First, an appropriately chosen undergraduate major provides a variety of career options in addition to architectural design. An interdisciplinary undergraduate major provides students with an opportunity to investigate and explore a broad range of intellectual experiences with the practice of architecture and make more informed decisions about career directions. Second, an undergraduate degree which combines pre-architecture studies with a specialization in a field such as graphic design, computer science, urban planning, or urban design, enhances the student’s graduate school application while providing a strong foundation for entry into the profession.

The UW-Green Bay environmental design program was developed specifically to provide pre-architectural studies. It includes coursework in design methods, architectural graphics, art history, and architectural and urban design. Its core is a four-semester sequence of studio experiences in which student teams produce design proposals for actual clients. UW-Green Bay environmental design teams have worked with the Green Bay Planning Department, the Dr. Pehr and Recreation Commission, the Oconto County Economic Development Authority, and many other agencies and programs. Design teams have served the Oneida Nation of Wisconsin in the development of a 25-year master plan and the design of capital facilities including a business park, a 260-acre wetlands park, two residential subdivisions, energy-efficient housing, a police station, and a health center-nursing home complex. Students interested in combining architecture with urban scale problems and the program to a major in urban and regional studies. Those with interests in graphic design or studio art may select a major in communication and the arts.

Most UW-Green Bay pre-architecture students have chosen to complete bachelor’s degrees here and apply for entry into the Master of Architecture programs. While a number have entered the program at UW-Milwaukee, the majority have been admitted to graduate programs at out-of-state universities including Virginia, North Carolina, Illinois, Minnesota, Arizona, UCLA, Kansas, UC-Berkeley, Washington, and Cincinnati.

For course work preparation for the master’s program, see the environmental design emphasis of the majors in communication and the arts and urban and regional studies listed earlier in this chapter.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

Chiropractic

Preprofessional Program

Chiropractors work with their hands to treat problems of the human body. They may arrange exercise, rest and diet programs to assist patients, but they do not prescribe drugs or perform surgery.

Requirements for admission to professional chiropractic colleges vary, but generally they require completion of two years of college coursework, including specific required courses. Once admitted to the professional college, students should expect about three and a half years of study.

Early in their freshman year, students should get specific requirements from the chiropractic college to which they expect to transfer. Advisers in the Academic Advising Office can provide lists of chiropractic colleges and help students plan programs of study to meet requirements.

The UW-Green Bay courses below fulfill requirements for the Palmer College of Chiropractic in Davenport, Iowa. Requirements for other professional chiropractic colleges are similar.

Preprofessional Courses

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-302 Organic Chemistry I, 3 credits
- 225-304 Organic Chemistry I Laboratory, 1 credit
- 225-303 Organic Chemistry II, 3 credits
- 225-305 Organic Chemistry II Laboratory, 1 credit
- 246-133 Fundamentals of Public Address, 3 credits
- 252-103 Expository Writing, 3 credits
- 820-102 Introduction to Psychology, 3 credits

And:

- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits

Or:

- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits

English or communication courses, 6 credits

Elective courses from the humanities, social sciences and other areas, 15 credits. (Suggested courses include psychology, sociology, business, literature, philosophy, history, government, foreign language, religion.)

Palmer College requires students to submit applications and official transcripts one year in advance of the date they expect to enroll. Application procedures, deadlines and admission criteria vary among schools, so it is important to contact prospective professional schools for details early in the freshman year.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Counseling

Preprofessional Program

Students seeking careers in this broad human services field will choose majors and minors based on the particular type of counseling they wish to enter. Some counseling fields require advanced study and UW-Green Bay can provide undergraduate preparation for such programs. UW-Green Bay also has a cooperative program with UW-Milwaukee for the Master of Science in educational psychology-counseling. Bachelor's degrees from UW-Green Bay can prepare graduates for entry into advanced programs at other UW institutions, including those offered by the UW-Milwaukee and UW-Oshkosh graduate schools and U.W.-Stout (vocational rehabilitation). UW-Green Bay offers the Bachelor of Social Work (BSW), which is a suitable credential for employment in some fields and serves as preparation for Master of Social Work (MSW) programs at UW-Milwaukee and UW-Madison.

Alcohol and drug abuse counselors. Not all positions in this field require college degrees. But other positions require counselors to have bachelor's or master's degrees in social work, guidance and counseling, education, psychology, nursing, and other fields. UW-Green Bay students pursuing this career field might major in psychology with minors in human development or social change and development. A Bachelor of Social Work degree is another possibility.

Counselors. Students seeking entry to this field may choose from among many majors including psychology, social work, human development, and social change and development. A master's degree would provide good advanced credentials.

Clinical psychologists. Those practitioners must have advanced training at the master's and doctoral degree levels. Persons who wish to become licensed and develop their own practices must have the doctorate. Admission to such programs is competitive, and students seeking the degree should have exceptional grade point averages and abilities in research and scientific methods.

Probation and parole officers. An appropriate major at UW-Green Bay for such positions would be social change and development. The psychology major or minor on a minor in sociology would also be appropriate with an interdisciplinary combination.

Social workers. UW-Green Bay’s Bachelor of Social Work program is accredited by the Council on Social Work Education. Some agencies hiring social workers accept majors in psychology. At UW-Green Bay, these should be combined with interdisciplinary minors such as social change and development or human development. Some social work positions require the Master of Social Work.

Vocational and education counselors. Such counselors usually need at least a bachelor's degree and experience in a field such as teaching, a health occupation, or social work. Psychology majors combined with appropriate interdisciplinary minors would provide good preparation. Individuals in many educational settings need teaching licenses. Many such positions require a master's degree. The UW-Green Bay and UW-Milwaukee cooperative master’s degree program in educational psychology-counseling is one possibility. UW-Green Bay bachelor’s degrees prepare students for entry into specialized graduate programs in counseling at other UW institutions as well.

Vocational rehabilitation counselors. These counselors need master's degrees in vocational rehabilitation. Certification through examination is sometimes required. Appropriate undergraduate preparation can be gained through majors in psychology coupled with interdisciplinary minors. UW-Stout has a master’s degree program in vocational rehabilitation.

Dentistry

Preprofessional Program

All dental schools specify certain subjects and most require completion of at least 90 credits of college work with superior grade point averages and good scores on the Dental Admissions Test before admittance. Dental schools set their own requirements. It is important that students seek information from chosen schools early so they can plan appropriately.

UW-Green Bay provides preparation for dental schools, including specific required courses. The logical major for a student in pre-dentistry is human biology. It is not required that pre-dental students complete a science major, although some dental schools favor them. Pre-dental students are advised to select majors that offer career alternatives should they fail to gain admission to dental school.

UW-Green Bay’s program has demonstrated its effectiveness. Most of its students whose grade point averages were 3.0 or higher and who achieved good dental entrance exam scores have been accepted into dental schools. Marquette University has the only school of dentistry in Wisconsin. The minimum courses below are required for admission into that program. Students interested in out-of-state programs should get those schools' requirements and plan their programs with the pre-dentistry advisor.

Preprofessional Courses (minimum required courses)

Chemistry and Physics:
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-302 Organic Chemistry I, 3 credits
- 225-304 Organic Chemistry Laboratory I, 1 credit
- 225-305 Organic Chemistry II, 3 credits
- 225-306 Organic Chemistry Laboratory II, 1 credit
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits
- OR
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits (calculus level)

Biology:
- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits

English:
- 352-105 Expository Writing, 3 credits
- Any literature or composition course, 3 credits

Recommended electives:
- 204-302 Principles of Microbiology, 4 credits
- 204-303 Genetics, 3 credits
- 204-304 Genetics Laboratory, 1 credit
- 204-340 Comparative Anatomy of Vertebrates, 4 credits
- 225-311 Analytical Chemistry, 4 credits
- 225-330 Biochemistry, 3 credits
- 225-331 Biochemistry Laboratory, 1 credit
- 478-402 Human Physiology, 3 credits
- 478-413 Neurophysiology, 3 credits
- 600-101 Intermediate Algebra, 3 credits
- 600-104 Elementary Functions, 4 credits
- 600-260 Introductory Statistics, 4 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Dietetics

Preprofessional Program

To become a dietitian, a student must first enroll in an approved Didactic Program in Dietetics (DPD) which will provide at least a bachelor’s degree. After a student completes the DPD, he or she will then need a supervised practice experience by completing either an approved preprofessional practice program (APM) or dietetic internship. Completion of a practice program makes a student eligible to take the Registration Examination for Dietitians. Both a DPD and a supervised practice program must be credentialed by the Commission of Accreditation/Approval for Dietetic Education (CAADE) of the American Dietetic Association.

The University of Wisconsin-Green Bay offers both a didactic program and dietetic internship through the human biology program. The DPD curriculum is the nutritional science/dietetic emphasis of the human biology major. Course requirements are located earlier in this catalog under the Human Biology major description in the Programs of Study section. Students who wish to participate in the University’s dietetic internship must apply separately to that program upon completion of the DPD.

Students are also eligible to apply to credentialed practice programs offered elsewhere. It is the student’s responsibility to contact the dietetic internships for current requirements and application process. Additional information about dietetic programs can be obtained from the American Dietetic Association website at www.eatright.org.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

Engineering

Preprofessional Program

UW-Green Bay provides a joint engineering program with UW-Milwaukee, offering degrees in civil, electrical, industrial and manufacturing, materials, and mechanical engineering (see the professional major in Engineering listed in the Programs of Study section). UW-Green Bay also can provide preprofessional courses for transfer into other engineering programs. These include courses in mathematics, physics, chemistry, engineering drawing, engineering mechanics, and other related courses, as well as courses in the humanities, arts, and social sciences.

Required pre-engineering courses will vary, depending on the engineering program from which a student expects to earn his or her degree. Generally, a student can expect to spend a minimum of two years in pre-engineering studies at UW-Green Bay before transferring to the professional engineering program.

Students should expect rigorous requirements and competitive entry for engineering programs. Pre-engineering students should seek advice from the various engineering programs and UW-Green Bay’s Academic Advising Office early in their freshman year so they may plan appropriate supporting courses.

Institutions in Wisconsin offering engineering degrees are:

- UW-Madison — degrees in chemical, civil and environmental, electrical and computer, engineering mechanics, geological, industrial, material science, mechanical, metallurgical, and nuclear engineering.
- UW-Platteville — degrees in civil, electrical, mechanical, and industrial engineering.
- Marquette University — degrees in civil, electrical, mechanical, industrial, and biomedical engineering.
- Milwaukee School of Engineering — degrees in architectural, biomedical, computer science, electrical, industrial, and mechanical engineering.

Advisers from some of these engineering schools visit UW-Green Bay regularly to answer questions and advise prospective students. The Academic Advising Office can provide information about such visits.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Law

Preprofessional Program

Most law schools require a bachelor’s degree for admission. Unlike many professional schools, however, law schools do not require a uniform program of study or specific undergraduate major. Law schools do recommend that a prelaw student demonstrate an understanding of the development of social, political and economic institutions; an ability to communicate well, orally and in writing; a capacity to think clearly and analytically; and habits of disciplined study.

Preparation for law school can be carried out through majors and professional programs at UW-Green Bay. Commonly chosen majors by prelaw students include political science, public administration, business administration, social change and development, urban studies, and humanistic studies. In addition to an appropriate major, prelaw students should take courses in a wide range of liberal arts and sciences. Courses in political science, economics, sociology, history, philosophy, literature, accounting, computer science, and natural science are recommended.

UW-Green Bay pre-law students have organized a Law Society. Activities include guest speakers on aspects of the law, field trips to law schools, panel discussions by members of local law firms, and mock trials. Representatives attend the National Pre-Law Forums and bring back information from law schools around the country.

Each state sets minimum requirements for admission to law schools within its borders. A bachelor’s degree does not guarantee admission. Law schools consider college record, grade point average, honors or awards, faculty recommendations, and scores on the Law School Admissions Test (LSAT). The LSAT must be taken in the junior year or early in the senior year. Law Society members help to organize an LSAT preparatory course.

The following recommended UW-Green Bay courses are based on three major areas of student development outlined by the Association of American Law Schools. In addition, students complete requirements of their chosen UW-Green Bay major and general education requirements.

Preprofessional Courses

Oral and written competencies:
- 246-133 Fundamentals of Public Address, 3 credits
- 246-333 Persuasion and Argumentation, 3 credits
- 351-104 Introduction to Literature, 3 credits
- 352-105 Expository Writing, 3 credits
- 351-304 Advanced Expository Writing, 3 credits

Critical understanding of human institutions and values:
- 298-202 Macro Economic Analysis, 3 credits
- 298-203 Micro Economic Analysis, 3 credits
- 448-205 History of the United States from 1600 to 1865, 3 credits
- 448-206 History of the United States from 1865 to the Present, 3 credits
- 448-302 Problems in American Thought, 3 credits
- 493-101 Foundations of Western Culture I, 3 credits
- 493-102 Foundations of Western Culture II, 3 credits
- 736-101 Introduction to Philosophy, 3 credits
- 736-102 Problems in Ethics, 3 credits
- 736-301 Applied Theoretical Ethics, 3 credits
- 778-100 World Politics, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-230 Law and the Judicial Process, 3 credits
- 778-310 The American Presidency, 3 credits
- 778-316 Congress: Politics and Policy, 3 credits
- 778-320 Constitutional Law, 3 credits
- 778-340 Political Theory, 3 credits
- 778-360 International Relations, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 820-330 Social Psychology, 3 credits
- 835-202 Introduction to Public Policy, 3 credits
- 835-215 Introduction to Public Administration, 3 credits
- 875-204 Freedom and Social Control, 3 credits
- 875-340 Women, Work and Family, 3 credits
- 903-202 Introduction to Sociology, 3 credits

Creative power in thinking:
- 736-111 Elementary Logic, 3 credits
- 835-408 Public Policy Analysis, 3 credits
- 875-360 Models and Social Change, 3 credits

UW-Green Bay has a number of other law-related courses which may help students prepare for law school. These include:
- 107-300 Legal Environment of Business, 3 credits
- 107-306 Business Law II, 4 credits
- 216-206 Law and the Individual, 3 credits
- 835-314 Administrative Law, 3 credits
- 835-378 Environmental Law, 3 credits
- 875-230 Law and the Judicial Process, 3 credits
- 875-303 Criminal Justice Process, 3 credits
- 875-325 Law in Society, 3 credits
- 903-404 Criminology, 3 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
**Medicine**

**Preprofessional Program**
Almost all medical schools require a bachelor’s degree for entrance and specify subjects that a candidate must have completed. Applicants must demonstrate exceptional ability, high aptitude in science, and outstanding achievement. They must take the Medical College Admissions Test (MCAT). UW-Green Bay’s premedical program has demonstrated its effectiveness. Virtually all UW-Green Bay graduates with grade point averages of 3.5 or better and high scores on the MCAT who seek admission have been accepted into medical schools.

The most logical major for UW-Green Bay students interested in premedicine and human life sciences is human biology. Other majors are possible. The multidisciplinarity of UW-Green Bay majors prepares students for professional activities in addition to medicine and more than one graduate education opportunity.

Wisconsin has two medical schools — the Medical College of Wisconsin in Milwaukee and the University of Wisconsin Medical Center, Madison. Students should get requirements from any medical college they hope to attend so they can plan their undergraduate studies accordingly. The following list of required UW-Green Bay courses is based on requirements for medical colleges. In addition, students complete requirements of their UW-Green Bay major and all-university requirements.

**Preprofessional Courses**

**Chemistry and physics:**
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-301 Organic Chemistry I, 3 credits
- 225-304 Organic Chemistry II Laboratory, 1 credit
- 225-303 Organic Chemistry II, 3 credits
- 225-305 Organic Chemistry III Laboratory, 1 credit
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits

**Biological:**
- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- And, a minimum of one of these:
  - 204-302 Principles of Microbiology, 4 credits
  - 204-303 Genetics, 3 credits
  - 204-340 Comparative Anatomy of Vertebrates, 4 credits
  - 478-402 Human Physiology, 3 credits
  - 478-413 Neurophysiology, 3 credits

**Mathematics, a minimum of two of these:**
- 600-101 Intermediate Algebra, 3 credits
- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-260 Introductory Statistics, 4 credits

**English:**
- 352-105 Expository Writing, 3 credits

One literature course, 3 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

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**Mortuary Science**

**Preprofessional Program**
Professionals in mortuary science include embalmers and funeral directors. Both require apprenticeships and successful completion of state examinations leading to licensure to practice. Embalmers may be high school graduates with college preparatory courses, but funeral directors generally must complete preprofessional college courses and then enroll in mortuary college. Requirements for states vary. Students should plan preprofessional studies to satisfy requirements of the state where they intend to practice.

Wisconsin requires funeral directors to complete two years of preprofessional college work plus professional mortuary science training. Wisconsin students generally attend the University of Minnesota for their advanced work. UW-Green Bay courses fulfilling basic preprofessional requirements for mortuary science are listed below.

**Preprofessional Courses**

- 107-300 Introductory Accounting, 4 credits
- 108-301 Introduction to Business, 3 credits
- 204-202 Principles of Biology I, 4 credits
- 204-302 Principles of Microbiology, 4 credits
- 216-202 Business and Its Environment, 3 credits
- 216-206 Law and the Individual, 3 credits
- 225-201 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 246-135 Fundamentals of Public Address, 3 credits
- 352-100 College Writing, 3 credits

**OR**

- 352-105 Expository Writing, 3 credits
- 448-100 History of the Modern World, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 778-100 World Politics, 3 credits
- 778-101 American Government and Politics, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Nursing

Preprofessional Program

In addition to its own Bachelor of Science in Nursing (B.S.N.) degree completion program for persons who are registered nurses, UW-Green Bay offers preprofessional courses for those who are just beginning their nursing studies. This allows prospective nurses to spend approximately two years studying at UW-Green Bay before transferring to another institution. Students may select Belvin College of Nursing, another private nursing school, or one of the University of Wisconsin campuses which offer the B.S.N. These are the universities at Eau Claire, Madison, Milwaukee, and Oshkosh. Students who wish to graduate from a school other than UW-Green Bay are advised to apply to the school of choice before beginning coursework at UW-Green Bay.

While requirements for professional nursing programs at the other UW schools vary somewhat, the list here outlines a typical two-year prerequisite program which may be completed at UW-Green Bay.

Prospective nurses who wish to complete courses at UW-Green Bay and then transfer into a B.S.N. program should consult an adviser before beginning the freshman year to ensure that their studies fulfill requirements of the transfer institution.

Preprofessional Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>204-202</td>
<td>Principles of Biology I</td>
<td>4 credits</td>
</tr>
<tr>
<td>204-302</td>
<td>Principles of Microbiology</td>
<td>4 credits</td>
</tr>
<tr>
<td>216-202</td>
<td>Business and Its Environment</td>
<td>3 credits</td>
</tr>
<tr>
<td>225-108</td>
<td>General Chemistry</td>
<td>5 credits</td>
</tr>
<tr>
<td>225-300</td>
<td>Bio-Organic Chemistry</td>
<td>3 credits</td>
</tr>
<tr>
<td>246-133</td>
<td>Fundamentals of Public Address</td>
<td>3 credits</td>
</tr>
<tr>
<td>352-105</td>
<td>Expository Writing</td>
<td>3 credits</td>
</tr>
<tr>
<td>478-204</td>
<td>Anatomy and Physiology</td>
<td>5 credits</td>
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<tr>
<td>481-210</td>
<td>Introduction to Human Development</td>
<td>3 credits</td>
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<tr>
<td>481-343</td>
<td>Adulthood and Aging</td>
<td>3 credits</td>
</tr>
<tr>
<td>600-104</td>
<td>Elementary Functions: Algebra and Trigonometry</td>
<td>4 credits</td>
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<tr>
<td>255-205</td>
<td>Social Science Statistics</td>
<td>4 credits</td>
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<tr>
<td>OR</td>
<td>600-280</td>
<td>Introductory Statistics</td>
</tr>
<tr>
<td>OR</td>
<td>694-300</td>
<td>Human Nutrition</td>
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<tr>
<td>OR</td>
<td>694-485</td>
<td>Medical Nutrition Therapy</td>
</tr>
<tr>
<td>735-101</td>
<td>Introduction to Philosophy</td>
<td>3 credits</td>
</tr>
<tr>
<td>735-102</td>
<td>Problems in Ethics</td>
<td>3 credits</td>
</tr>
<tr>
<td>820-102</td>
<td>Introduction to Psychology</td>
<td>3 credits</td>
</tr>
<tr>
<td>820-429</td>
<td>Theories of Personality</td>
<td>3 credits</td>
</tr>
<tr>
<td>900-202</td>
<td>Introduction to Sociology</td>
<td>3 credits</td>
</tr>
</tbody>
</table>

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student's responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

Occupational Therapy

Preprofessional Program

Students can complete at least two semesters of preprofessional work in occupational therapy at UW-Green Bay before transferring to an institution which offers the bachelor's degree in occupational therapy. In Wisconsin, the degree is offered at UW-Madison, UW-Milwaukee, and Mount Mary College in Milwaukee.

Requirements for entry into each program vary. UW-Green Bay has arranged an approved two-semester program with UW-Madison's occupational therapy program. Similar arrangements can be made with the other institutions.

Admission into any of the occupational therapy programs is competitive and is based on criteria such as cumulative grade point average, grade point average in selected courses, and completion of specific prerequisite courses. It is important for the student to consult with an adviser early in the freshman year to ensure that appropriate preprofessional courses are completed.

The following UW-Green Bay courses satisfy one year of preprofessional requirements for UW-Madison.

Preprofessional Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>204-202</td>
<td>Principles of Biology I</td>
<td>4 credits</td>
</tr>
<tr>
<td>204-203</td>
<td>Principles of Biology II</td>
<td>4 credits</td>
</tr>
<tr>
<td>225-108</td>
<td>General Chemistry</td>
<td>5 credits</td>
</tr>
<tr>
<td>246-133</td>
<td>Fundamentals of Public Address</td>
<td>3 credits</td>
</tr>
<tr>
<td>352-100</td>
<td>College Writing</td>
<td>3 credits</td>
</tr>
<tr>
<td>481-331</td>
<td>Infancy and Early Childhood</td>
<td>3 credits</td>
</tr>
<tr>
<td>481-343</td>
<td>Adulthood and Aging</td>
<td>3 credits</td>
</tr>
<tr>
<td>820-102</td>
<td>Introduction to Psychology</td>
<td>3 credits</td>
</tr>
<tr>
<td>900-202</td>
<td>Introduction to Sociology</td>
<td>3 credits</td>
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<tr>
<td>OR</td>
<td>900-203</td>
<td>Minority Groups</td>
</tr>
<tr>
<td>OR</td>
<td>900-308</td>
<td>Sociology of the Family</td>
</tr>
</tbody>
</table>

Also:

Literature elective, 3 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student's responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Optometry

Preprofessional Program

Optometrists earn a Doctor of Optometry (O.D.) degree and successfully complete state and national board examinations in order to practice their professions. Most schools of optometry require a minimum of 90 college credits for admission. Many applicants complete a bachelor’s degree first. In either case, certain required courses must be completed before admission to a school of optometry. Successful completion of the Optometry Admission Test (OAT) is required as well.

Advisers can help students get information about schools of optometry and their specific requirements, and plan appropriate preprofessional programs. It is important for the student to consult with an adviser early to assure that appropriate preprofessional courses are completed.

Students who complete bachelor’s degrees before entering the professional school usually complete majors in biology or chemistry. Science majors are not mandatory, however, as long as students complete specific required courses.

Following are UW-Green Bay courses which satisfy certain prerequisite requirements for schools of optometry.

**Preprofessional Courses**

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 204-302 Principles of Microbiology, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-302 Organic Chemistry I, 3 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 352-103 Expository Writing, 3 credits
- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-260 Introductory Statistics, 4 credits
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits

Also:

Electives may be considered in computer science, genetics, human anatomy and physiology, sociology, business, economics, and public speaking. A course in biochemistry is also highly recommended.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

Pharmacy

Preprofessional Program

(includes pharmaceutical sciences, pharmacology and toxicology)

UW-Green Bay offers courses satisfying requirements for the first two years of study for pharmacy and pharmacy-related careers. The only school of pharmacy in Wisconsin is at UW-Madison and that institution advises the UW-Green Bay prepharmacy program.

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.

Advisers from UW-Madison usually visit UW-Green Bay each year to help prepharmacy students plan their programs. Admission to the School of Pharmacy is based on completion of prerequisite courses, grade point average and recommendations. Grade point averages in mathematics and science courses are particularly important. Candidates for the B.S. in pharmacy and B.S. in pharmaceutical sciences must submit Pharmaceutical College Admissions Test (PCAT) scores.

The UW-Green Bay courses listed satisfy prepharmacy and pre-pharmaceutical sciences requirements at UW-Madison.

**Preprofessional Courses**

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-302 Organic Chemistry I, 3 credits
- 225-304 Organic Chemistry I Laboratory, 1 credit
- 225-303 Organic Chemistry II, 3 credits
- 225-305 Organic Chemistry II Laboratory, 1 credit
- 295-201 Micro Economic Analysis, 3 credits
- 352-105 Expository Writing, 3 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits
- OR
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits
- 820-102 Introduction to Psychology, 3 credits
- OR
- 820-330 Social Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits
- OR
- 156-100 Varieties and Social Worlds Culture, 3 credits

Also:

Electives in humanities and social sciences

Ethnic studies courses

* These courses are required for admission into the PharmD program but are not required for the Pharmacology and Toxicology programs. However, these classes may satisfy the pharmacology and toxicology three to six credits social studies elective requirement.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Physical Therapy

Preprofessional Program

Physical therapy programs are offered in Wisconsin at UW-Madison, UW-LaCrosse, and Marquette University in Milwaukee. Admission is competitive and entrance requirements into the physical therapy programs differ for each university so it is very important for students to contact the schools of their choice. Information on physical therapy programs in the United States can be obtained by writing to: American Physical Therapy Association, 1111 North Fairfax St., Alexandria VA 22314.

Physical therapy is a master’s degree program which requires a bachelor’s degree for admission. At UW-Green Bay the appropriate undergraduate major is human biology.

Requirements for entry into the programs at Madison and LaCrosse differ slightly. Both programs require a bachelor’s degree, set minimum grade point averages, and require completion of the preprofessional curriculum and actual experience in settings with patients.

The following UW-Green Bay courses are appropriate preprofessional preparation for the physical therapy program at UW-Madison. Advising guides are available for the program at UW-LaCrosse.

Preprofessional Courses

204-202 Principles of Biology I, 4 credits
204-203 Principles of Biology II, 4 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits
754-103 Fundamentals of Physics I, 5 credits
754-104 Fundamentals of Physics II, 5 credits
478-402 Human Physiology, 3 credits
478-403 Human Physiology Laboratory, 2 credits
478-330 Principles of Exercise Physiology, 4 credits
478-351 Kinesiology, 4 credits
225-330 Biochemistry, 3 credits

OR
694-327 Nutritional Biochemistry, 4 credits
600-260 Introductory Statistics, 4 credits
Literature course, 3 credits

Courses in speech, psychology and human development are recommended but are not required.

Also, as required for degree:

Composition course
Humanities, 6 credits
Social Studies, 9 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.

Physician Assistant

Preprofessional Program

Physician assistants are highly trained professionals who provide medical care under the supervision of a doctor. Wisconsin has a program leading to the Bachelor of Science Physician Assistant at UW-Madison. The program has a two-year preprofessional component leading to two years of professional study. Students desiring careers as physician assistants may complete one year of the preprofessional program at UW-Green Bay. Remaining preprofessional work must be completed on the UW-Madison campus.

Admission to the physician assistant program is competitive. The admission committee evaluates academic performance, health care experience, letters of recommendation, a written essay by the applicant, and a personal interview.

UW-LaCrosse also offers a baccalaureate entry-level program which entails a three-year preprofessional and a two-year professional curriculum. Prospective physician assistant students should contact an adviser from the institution they plan on attending as well as advisers from UW-Green Bay to assure proper course planning.

For a student transferring to UW-Madison, the following is a typical program of courses for the freshman year at UW-Green Bay. Additional courses may be required for entry to UW-Madison and UW-LaCrosse, depending on high school credits in areas such as mathematics and foreign language.

Preprofessional Courses

204-202 Principles of Biology I, 4 credits
204-203 Principles of Biology II, 4 credits
204-302 Principles of Microbiology, 4 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 5 credits
352-100 College Writing, 3 credits
OR
352-105 Expository Writing, 3 credits
478-204 Anatomy and Physiology, 5 credits
820-102 Introduction to Psychology, 3 credits

Also:
Courses in the social sciences and humanities.

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
Theology

Preprofessional Program

Theological schools typically recommend a broad undergraduate program in the liberal arts. Students who wish to enter the field of theology usually earn a bachelor’s degree and then spend three or four years studying in a school of theology.

At the undergraduate level, students should take courses in English composition, literature, history, philosophy, and natural and social sciences and gain a working knowledge of a foreign language. A logical major for pretheology students at UW-Green Bay is humanities studies. Minors might include history, philosophy, literature, foreign language, sociology, women’s studies, social change and development, and others. Pretheology students should learn requirements of the theological schools to which they are likely to apply, assess their own interests, and plan their programs early with the pretheology adviser. The following list of UW-Green Bay courses are appropriate preprofessional preparation for theology.

Preprofessional Courses

156-320 Myth, Ritual and Religion, 3 credits
246-133 Fundamentals of Public Address, 3 credits
352-105 Expository Writing, 3 credits
448-100 History of the Modern World, 3 credits
448-209 History of the United States from 1600 to 1865, 3 credits
448-206 History of the United States from 1865 to the Present, 3 credits
448-301 The Middle Ages, 3 credits
448-306 Problems in European Thought, 3 credits
493-101 Foundations of Western Culture I, 3 credits
493-102 Foundations of Western Culture II, 3 credits
493-202 Introduction to the Humanities I, 3 credits
493-202 Introduction to the Humanities II, 3 credits
493-122 American Indian Studies: Arts and Ceremonial Traditions, 3 credits
493-226 American Indian Studies: Wisconsin American Indian Nations, 3 credits
493-322 The Writings of the Old Testament, 3 credits
493-324 The Writings of the New Testament, 3 credits
493-329 Judaism, Christianity and Islam, 3 credits
493-326 Non-Western Religions, 3 credits
493-410 The Christian Heritage: Birth of Christ to 1600, 3 credits
736-101 Introduction to Philosophy, 3 credits
736-102 Problems in Ethics, 3 credits
736-105 Introduction to Social and Political Philosophy, 3 credits
736-213 Ancient Philosophy, 3 credits
736-214 Modern Philosophy, 3 credits
900-202 Introduction to Sociology, 3 credits

Especially useful literature courses include:

351-214 Introduction to English Literature I, 3 credits
351-215 Introduction to English Literature II, 3 credits
351-216 Introduction to American Literature I, 3 credits
351-217 Introduction to American Literature II, 3 credits

Students should also take courses in the French, German, or Spanish languages.

Veterinary Medicine

Preprofessional Program

Each school of veterinary medicine has its own requirements so students planning careers as veterinarians need to plan both preprofessional course work 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. Increasingly, although not required for admission, having a bachelor’s degree is encouraged. To qualify for admission, students must complete 60 credits of college course work including the 37 credits in science and English, 6 elective credits in social sciences/humanities, and 17 additional credits selected to meet personal and academic goals and objectives. Scores from the Graduate Record Exam (GRE) must also 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 related to veterinary practice, are taken into consideration.

All requirements for preveterinary medicine can be met at UW-Green Bay. Most students major in human biology or in biology with a human biology or environmental science minor. Students should plan their programs with the preveterinary adviser to make certain that preveterinary requirements are met. The following UW-Green Bay courses meet preprofessional requirements at the UW-Madison College of Veterinary Medicine. Requirements for entry into other schools of veterinary medicine may vary.

Required Courses:

204-202 Principles of Biology I, 4 credits
204-203 Principles of Biology II, 4 credits
225-211 Principles of Chemistry I, 5 credits
225-212 Principles of Chemistry II, 3 credits
275-300 Bio-Organic Chemistry, 3 credits
225-301 Bio-Organic Chemistry Laboratory, 1 credit
225-330 Biochemistry, 3 credits
352-100 College Writing, 3 credits
352-105 Expository Writing, 3 credits
600-200 Introductory Statistics, 4 credits
754-103 Fundamentals of Physics I, 3 credits
754-104 Fundamentals of Physics II, 5 credits

Also:

Social sciences and humanities courses, 6 credits

This information has been prepared to assist students with the advising process for this program. In addition, the UW-Green Bay Academic Advising Office has prepared a detailed advising guide listing program and course requirements. It is a student’s responsibility to contact the professional school(s) for current requirements, transfer information and advising assistance.
COURSE DESCRIPTIONS

Brief descriptions of the courses are presented in the following pages of this catalog.

Instructional Unit Numbers
The instructional unit number listed with each group of course descriptions is used for identification and record keeping. For example, Biology 303, Genetics, is listed as 204-303. The first three digits refer to the instructional unit; the last three to the course number. All six digits are needed for registration and other forms. Courses are listed numerically by instructional units in the Timetable and in this catalog.

Instructional unit numbers:
101 Interdisciplinary Studies
107 Accounting
156 Anthropology
168 Art
202 Interdisciplinary Studies
204 Biology
216 Business Administration
225 Chemistry
242 Communication and the Arts
246 Communication Processes
253 Community Sciences
266 Computer Science
296 Earth Science
298 Economics
302 Education
303 Interdisciplinary Studies
325 Engineering
351 English
352 English Composition
362 Environmental Science
397 French
404 Interdisciplinary Studies
416 Geography
424 German
448 History
478 Human Biology
481 Human Development
493 Humanistic Studies
505 Interdisciplinary Studies
520 Information Sciences
600 Mathematics
606 Interdisciplinary Studies
644 Military Science
670 Music
672 Applied Music
689 Nursing (Campus Track)
690 Nursing (Collaborative Track)
694 Nutritional Science/Dietetics
710 Organizational Administration
736 Philosophy
742 Physical Education
754 Physics
778 Political Science
820 Psychology
835 Public and Environmental Affairs
875 Social Change and Development
882 Social Work
900 Sociology
908 Spanish
912 Student Support Services
915 Theatre
951 Urban and Regional Studies

Abbreviations
Common abbreviations used in the course descriptions:
arr by arrangement with an instructor, by student
CL cross-listed course
cone enr concurrent enrollment
cons of last consent of instructor
cr credit(s)
equiv equivalent
g graduate
jst junior standing
min cum gpa minimum cumulative grade point average
pre required prerequisite(s)
p-nc pass-no credit grading
REC recommended background preparation
sw st sophomore standing
sr st senior standing

Abbreviations used to denote general education courses:
FA Fine Arts course
H-1 Humanities: Introduction to Western Culture Part I
H-2 Humanities: Introduction to Western Culture Part II
H-3 Humanities: Issues course
HB-1 Natural Sciences: Human Biology introductory course
ES-1 Natural Sciences: Environmental Science introductory course
NS-2 Natural Sciences: Issues course
SS-1 Social Science: Introductory course
SS-2 Social Science: Issues course
OC Other Culture course
ELS Ethnic Studies course

Course Periodicity
Courses offered at regular intervals are indicated with codes in parentheses following the course description. The absence of coding indicates that a course is probably not offered on a predictable schedule. Updated information on course periodicity is published in each Timetable.

Periodicity codes for courses offered annually:
F Every fall semester
S Every spring semester
F.S Every fall and spring semester

Periodicity codes for courses offered in alternate years:
FE Fall semester 2000-2001, 2002-2003, etc.
FO Fall semester 2001-2002, 2003-2004, etc.
SE Spring semester 2001-02, 2003-2004, etc.
Course Prerequisites

Prerequisites describe prior conditions which must be met in order to remain enrolled in a course. Prerequisites may include completion of prior courses, earned credits, class standing, grade point average, or program admission status. To enroll in a course, any prerequisites listed must be completed or be in progress at the time of registration for the course. For example, if a prerequisite is 107-301 Intermediate Accounting, a student must either have completed 107-300 or be currently enrolled in it to register for 107-301. If prerequisite conditions are not met, the computer will cancel the registration for 107-301.

Some courses have conditions that must be met simultaneously. For example, some courses indicate another course that must be enrolled concurrently.

Cross-Listed Courses

Many academic units accept for major or minor credit courses listed under another academic area. In this catalog, such course titles generally appear in both units, but the description may be listed only in the courses’ “home” unit. This is one of the many reasons students should seek advice in designing their programs of study.

Timetables

Timetables published for each semester and summer session, are essential for program planning. Timetables list course prerequisites, schedule, location, and, usually, the name of the teacher. Timetables also list new courses and special offerings that may not appear in this catalog.

Courses with Variable Content

Courses with variable content provide opportunities for individual work and exploration of unusual, specialized, or topical subjects not ordinarily included in the curriculum. These courses include student-led courses, selected topics, independent study, senior distinction in the major, senior honors projects, and internships. General descriptions of each type of course follow. Information on how to enroll in such courses can be found in the Timetable or through the Academic Advising Office.

281, 481 Student-Led Courses 1-4 credits

Well prepared, highly motivated students may develop and lead courses on their own. Topics must be subjects of contemporary concern not covered in regularly scheduled or catalogued courses. Three to three qualified students may work with a faculty adviser to propose a course they can demonstrate they are competent to design and lead. Proposals are routed through appropriate interdisciplinary or professional programs. Approval is based both on merit and potential demand.

Approved courses are listed in the Timetable with the 281 or 481 course number. The listed title will appear on student transcripts. Students may enroll for a maximum of six credits of student-led courses in any one semester. A maximum of 18 credits can be accumulated in 281 and 481 courses except by special permission. A complete set of guidelines for student-led courses is available in concentration and professional program offices.

281X, 483X Selected Topics 1-4 credits

These are courses and seminars presented on an experimental basis or in response to special demand. A particular topic is offered only once under the selected topics’ course number. It may then be adopted as a regular course and assigned a regular course number.

Selected topics courses are announced in the Timetable under the heading of the sponsoring unit. Timetables usually include the course description. Further information can be obtained from the unit or the instructor. Freshman-sophomore-level courses are presented under the 281X number. Those calling for more advanced preparation carry the 483X number and usually require the consent of the instructor for enrollment. The course title appears on the transcripts of students who enroll.

298, 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. Timetables can provide up-to-date information on independent study.

478 Senior Distinction in the Major 3 credits

Some academic units offer an opportunity to students graduating with a major to earn distinction by designing, completing, and defending original work undertaken with the consent and supervision of the faculty. Projects vary according to each student’s area of emphasis, but may take the form of written research projects, creative portfolios, video/audio/or slide-tape presentations, computerized materials, publishable series of articles, or other results as appropriate. Prerequisites are 3.5 overall grade point average for all courses indicated on the academic plan for the major; 3.75 GPA in upper-level courses; senior standing; consent of instructor.

484 Senior Honors Project 3 credits

Each interdisciplinary or professional program offers qualified students the opportunity to undertake a project to qualify for graduation with summa cum laude honors. Such a project — normally a thesis, research, or other creative activity — is carried out in the latter part of the junior year or in the senior year with the consent of a faculty adviser. Specific details are available from advisers and chairpersons. Students should register for an honors project not later than the first semester of the senior year. A 3.75 or higher cumulative grade point average is required to qualify.

497 Internships 3-12 credits

Supervised practical experience in an organization or activity appropriate to a student’s career and educational interests is offered through many academic units. Internships are supervised by faculty members and require periodic student/faculty meetings. Prerequisites are junior standing and consent of department chair.
101 Interdisciplinary Studies
101-152 Applied Economic Concepts 3 cr.
Introduction to micro- and macro-economic concepts and principles. Understand application to contemporary economic problems and issues in areas of markets, business organizations, prices, money, and banking. Fiscal policy. P: none.

101-306 Qualitative Business Methods: Accounting and Finance 3 cr.

101-308 Qualitative Business Methods: Management and Marketing 3 cr.
Process of management in activities of organization (accounting, finance, marketing); marketing system: product, price, promotion, and distribution decisions. P: 101-152.

101-352 Economic Concepts 3 cr.
Explores economic principles and consumer economics including money, banking, public finance, and research methods and techniques for economic analysis. For students who have completed macro and micro economic analysis. P: 298-202 and 203; or 101-152.

101-376 Practicum in Business and Economics 1-4 cr.
An individual contract is developed in consultation with a faculty member proficient in the subject matter and the director of the extended degree program. P: none.

101-388 Selected Topics in Business and Economics 1-4 cr.
An individual contract is developed in consultation with a faculty member proficient in the subject matter and the director of the extended degree program. P: none.

107 Accounting
107-306 Introductory Accounting 4 cr.
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, statement of cash flows, international accounting and financial statement analysis. Computer applications, ethical considerations, and analysis of company statements are integrated into the course. P: 107-300. (F,S)

107-301 Intermediate Accounting 4 cr.
Financial accounting theory, concepts, principles and procedures relating to the measurement and reporting of cash, receivables, inventories, fixed assets, intangibles, current liabilities, bond payables, owner's equity; preparation and understanding of the balance sheet and income statement. P: 107-300. (F,S)

107-302 Management Accounting 3 cr.
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: 107-300. (F,S)

107-305 Legal Environment of Business 3 cr.
Laws affecting business, emphasizing the Uniform Commercial Code: introduction to law and the legal process, contracts, agency, property, landlord-tenant and real estate laws, sales and consumer protection laws, secured transactions, negotiable instruments, corporation and partnership law, and estate and bankruptcy law. P: 36 earned cr and min cum GPA of 2.5; or major/minor in business administration or accounting or special classification of PBM or graduate standing. (F,S)

107-306 Business Law II 4 cr.
Laws affecting business, emphasizing the Uniform Commercial Code: introduction to law and the legal process, contracts, agency, property, landlord-tenant and real estate laws, sales and consumer protection laws, secured transactions, negotiable instruments, corporation and partnership law, and estate and bankruptcy law. P: 107-305. (F,S)

107-312 Managerial Accounting II 3 cr.

107-313 Advanced Financial Accounting I 3 cr.
Specialized financial accounting topics, including price-level accounting, accounting changes, cash flow statement preparation, tax allocation, accounting for leases and pensions, special sales arrangements, and partnerships; AICPA and FASB pronouncements affecting accounting practice. P: 107-301. (F)

107-314 Advanced Financial Accounting II 3 cr.
Business combinations; preparation of consolidated financial statements; intercompany inventory profit, preference interests and liquidating dividends; "earnings per share" calculations; accounting for branch operations; and foreign operations. P: 107-301; REC: 107-313. (S)

107-316 Governmental and Nonprofit Accounting 3 cr.
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. Emphasis on explanation of theory to actual situations including ethical considerations. P: 107-300. (F,S)

107-410 Introduction to Income Tax Theory and Practice 3 cr.
Federal income taxation, especially tax rules and the determination of taxable income for individuals. Topics include: exclusions, deductions, passive activity losses, property transactions, non-taxable exchanges, capital gains and losses. P: 107-300; REC: 107-305. (F)

107-411 Financial Information Systems 4 cr.
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: 107-302. (F)

107-412 Auditing Standards and Procedures 4 cr.
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. P: 107-313 and 411. (S)

107-414 Managerial Accounting III 3 cr.
Expands and broadens the concepts and methods presented in 107-302 and 107-312. Cost concepts for decision making, cost volume profit analysis, relevant costing, capital budgeting, performance measurement, variable costing, transfer pricing, and decision making under uncertainty. Includes case analysis. P: 107-312; REC: 600-260 or 216-215. (S)

107-415 Advanced Income Tax Theory and Practice 3 cr.
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. P: 107-410. (S)

107-452 Advanced Microcomputer Business Applications 3 cr.
See 216-432.
156 Anthropology
156-100 Varieties of World Culture 3 cr.
The variety of ways that life exist in the world and the concepts of culture, cultural relativity, and ethnoscience. Representative case studies of tribal and peasant societies are considered. P: none. OC/SS-1. (F,S)

156-303 Political, Economic and Environmental Anthropology 3 cr.
How people, nature, and culture interrelate. The approaches hunting, agriculture, and industrial societies use in adapting to the physical environment. P: 156-100. OC. (SO)

156-304 Family, Kin, and Community 3 cr.
A cross-cultural comparison of the form and function of such social institutions as marriage and the family, age, sex, kin groups, task groups, caste and class. P: Jr or OC/SS-2. (F)

156-320 Myth, Ritual and Religion 3 cr.
Mythologies, rituals, and religion and magic among divergent cultures of the world; how religious and magical systems interrelate with family, political and economic institutions. Jr or OC/SS-2. (F)

156-342 Human Evolution 3 cr.
See 478-342.

156-364 Human Variability 3 cr.
See 478-364.

156-370 Internship in Museum Anthropology 1-4 cr.
Cooperative program with the Neville Public Museum. Students negotiate a specific anthropologically related task to be carried out at the museum under staff supervision and seek approval of a UW-Green Bay anthropology faculty sponsor. Repeatable to 4 cr. P: 156-100; and 30 cr. (F,S)

168 Art

168-101 Tools, Safety, and Materials 1 cr.
Acquaints students with a wide range of materials and safe working practices and methods. Additional course fee required. P: none. (F,S)

168-105 Drawing 3 cr.
Introduction to studio art work and to fundamental concepts of drawing structure and design; emphasis upon two-dimensional art work employing various drawing techniques in black and white media. P: none. (F,S)

168-106 Design Methods 3 cr.
Investigates spatial design as a decision-making and problem-solving process bound by criteria which include human sensory systems, basic structural systems and media. Additional course fee required. P: 168-101. FA. (F,S)

168-107 Two-Dimensional Design 3 cr.
Design studio art work and fundamental concepts of art structure and composition; color and design, applying the elements and principles of design. Additional course fee required. P: none. FA. (F,S)

168-210 Introduction to Painting 3 cr.
Introduction to painting techniques, principles of composition, and media, and their inherent expressive qualities and characteristics. Additional course fee required. P: 168-105 or 168-107; REC: 168-103 and 106. FA. (F,S)

168-220 Introduction to Sculpture 3 cr.
Survey of various sculpture media, processes, and stylistic approaches; aesthetics and history of sculpture. Additional course fee required. P: 168-101 and 106; REC: 168-103 and 107. (F,S)

168-230 Introduction to Ceramics 3 cr.
Survey of various ceramic forming and firing processes, stylistic approaches; traditional and contemporary aesthetics, and history of ceramics. Additional course fee required. P: none; REC: 168-105 and 106 and 107. FA. (F,S)

168-243 Introduction to Photography 3 cr.

168-250 Introduction to Textiles 3 cr.
Ways in which woven fabrics can be altered through surface embellishment and through assembling and reconstructing: integration of textile processes and concepts with those normally associated with painting, drawing, and sculpture. Additional course fee required. P: none; REC: 168-105 and 106 and 107. (F,S)

168-260 Introduction to Art Metals; Jewelry 3 cr.
Designing and creating jewelry projects using varied metal techniques, processes and metal media; forming, shaping and designing of jewelry. Additional course fee required. P: none; REC: 168-105 and 106 and 107. FA. (F,S)

168-270 Introduction to Printmaking 3 cr.
Exploration of various printmaking media such as relief, monoprint, caligraph, linograp, and lithography. Additional course fee required. P: 168-105; REC: 168-106 and 107. (F,S)

168-302 Intermediate Drawing 3 cr.
Experimental conceptual and transformative approaches to drawing. The human figure will be subject matter for half the course. Additional course fee required. P: 168-105 and 106 and 107. (F,S)

168-311 Intermediate Painting 3 cr.
Techniques for personal expression; composition and development of imaginative concepts in acrylic paint and allied media. Additional course fee required. P: 168-105, 106, 107 and 210. (F,S)

168-321 Intermediate Sculpture 3 cr.
Intermediate work in sculpture including fabrication, casting, carving, and/or modeling; development of individual expression. Additional course fee required. P: 168-101, 105, 106, 107 and 220. (F,S)

168-331 Intermediate Ceramics 3 cr.
Intermediate work in ceramic media: mold work, wheel work or hand building; aesthetics; history and technology of ceramics. Additional course fee required. P: 168-105, 106, 107 and 230. (F,S)

168-343 Photography II 3 cr.
See 246-343. P: 168-105, 106 and 107; and 168-243 or 246-243. (F,S)

168-344 Photography III 3 cr.
See 246-344.

168-355 Textiles: Papermaking 3 cr.
Potential of handmade paper as a primary artistic material: pulp processing, sheet forming, colored pulp, color application; and three-dimensional techniques in casting, molding and assembling. Additional course fee required. P: 168-102, 106 and 107; REC: 168-250. (F,S)

168-364 Intermediate Art Metals; Jewelry 3 cr.
Intermediate jewelry and art metal techniques: casting, fabrication and assembling mixed-media objects. Additional course fee required. P: 168-260. (F,S)

168-371 Intermediate Relief Printing 3 cr.
Relief printing techniques: woodcut, collage print, linoleum cut and wood engraving. Additional course fee required. P: 168-105, 106, 107 and 270. (F,E)

168-373 Intermediate Intaglio 3 cr.
Intaglio techniques: dry point, aquatint and various etching procedures. Additional course fee required. P: 168-105, 106, 107 and 270. (F,O)

168-375 Screen Printing 3 cr.
Studio work in screen printing, including basic materials and equipment, blockout stencil making, paper stencil, pochoir, water soluble film, and photo-emulsion technique. Additional course fee required. P: 168-105, 106 and 107; and 168-243 or 168-243 or 246-243. (SO)

168-377 Intermediate Lithography 3 cr.
Lithography techniques: plate lithography, drawing and process. Additional course fee required. P: 168-103, 105, 106 and 270. (F,S)
168-395 Exhibition Development and Design 3 cr.
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. Field trips required. Repeatable to 6 cr. P: jr st. (F)

Practical experience in the methods of the museum and art gallery profession: exploration of theoretical, ethical, and operational concerns within the field. Field trips required. Repeatable to 6 cr. P: 168-395. (S)

168-402 Advanced Drawing 3 cr.
Development of personalized imagery with continuing technical and formal exploration. The human figure will be subject matter for one half of the course. Additional course fee required. Repeatable to 9 cr. P: 168-302. (F, S)

168-410 Advanced Painting 3 cr.
Painting students explore specific problems relevant to their individual artistic development, focusing upon portfolio development and a formally and conceptually consistent body of work. Additional course fee required. Repeatable to 9 cr. P: 168-311. (F, S)

168-421 Advanced Sculpture 3 cr.
Exploration and refinement of sculptural investigations towards a meaningful and personal body of work. Additional course fee required. Repeatable to 9 cr. P: 168-321. (F, S)

168-431 Advanced Ceramics 3 cr.
Extension and development of ceramic techniques and aesthetics into a significant and personal body of work. Additional course fee required. Repeatable to 9 cr. P: 168-331. (F, S)

168-443 Advanced Problems in Photography 3 cr.
See 246-443.

168-453 Advanced Textiles 3 cr.
Exploration of one area of textiles or papermaking, such as handmaded paper, weaving and related fiber construction techniques, alteration of prewoven fabrics, development of individual expressive style. Additional course fee required. Repeatable to 9 cr. P: 168-250 or 355. (F, S)

168-462 Advanced Metal Art: Jewelry 3 cr.
Advanced techniques in jewelry: creative research and investigation of metals and jewelry media. Additional course fee required. Repeatable to 9 cr. P: 168-364. (F, S)

168-470 Advanced Printmaking 3 cr.
Advanced techniques and individual expression in one area of printmaking: intaglio, relief, lithography or screen printing. Additional course fee required. Repeatable to 9 cr. P: 168-371, 373, 375 or 377. (F, S)

168-490 Contemporary Art 1945-Present 3 cr.
Art movements from abstract expressionism to the present. P: 242-102, 103 and 202; and 242-370, 371 or 374. (F)

168-493 Photography Portfolio 3 cr.
See 246-493.

168-495 Advanced Gallery/Museum Practices 3 cr.
Continued study of specialty areas in the art management field with an emphasis on exhibition development, collection management and research. Repeatable to 9 cr. P: 168-395 and 396. (F, S)

168-497 Internship in Gallery/Museum Practices 3-12 cr.
Internship with an outside museum or gallery. Activities are determined by the curator of art and a professional in the sponsoring institution. P: 168-395 and 396 with at least a B grade and at least 4 cr of 168-396. (F, S)

202 Interdisciplinary Studies

202-235 Speaking and Listening Skills 3 cr.
Effective use of public address techniques; effective leadership and participation in group discussion; detection of propaganda and understanding process and theory of learning. P: none. (F, S)

202-400 Capstone: Synthesis and Assessment Learning 2 cr.
Students will demonstrate achievement of learning outcomes of the Interdisciplinary Studies major by completion of a synthesis paper and oral report. The course will also assess written communications and information retrieval skills. P: 99 or more earned credits and 352-105. (F, S)

204 Biology

204-202 Principles of Biology I 4 cr.
Biological principles, structure and function of organisms, with consideration of interactions at cellular level and examination of the relationships of organisms to the environment. Includes laboratories. P: none. HB-1. (F, S)

204-203 Principles of Biology II 4 cr.
Biological principles, structure and function of organisms, with consideration of interactions at cellular level and examination of the relationships of organisms to the environment. Includes laboratories. P: 204-202 with at least a C grade. (F, S)

204-302 Principles of Microbiology 4 cr.
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: 204-202 with at least a C grade; 225-108 or 225-212 with at least a C grade. (F, S)

204-303 Genetics 3 cr.
Mechanisms of heredity and variation, their cytological and molecular basis and their implications in biological technology. P: 204-202 with at least a C grade. (F, S)

204-304 Genetics Laboratory 1 cr.
Basic techniques of genetic research; laboratory investigations and analysis of animal, plant, and human patterns of inheritance. P: 204-303 or conc enr or 478-310 with at least a C grade. (S)

204-307 Cell Biology 4 cr.
A lecture and laboratory course examining the molecular organization of major cellular organelles and their functions in plant and animal cells. P: 204-202 with at least a C grade and 225-212 or 225-108 with at least a C grade. (F)

204-310 Plant Taxonomy 3 cr.
Identification and classification of vascular plants of North America, emphasizing flora of Wisconsin and including topics in evolution of vascular plants. Field trips required. P: 204-203 with at least a C grade or transfer course 204-003. (S)

204-311 Plant Physiology 4 cr.
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: 204-203 with at least a C grade or transfer course 204-003; and 225-212. (SE, F)

204-312 Mycology 3 cr.
Morphology and taxonomy of lower and higher fungi; studies of fungi in medicine and allergies, in brewing, baking, and other industries; poisonous and edible fungi; techniques in collection, isolation, pure culture and identification. Field trips required. P: 204-202 with at least a C grade. (S)

204-317 Structure of Seed Plants 3 cr.
Anatomy of seed plants, with special emphasis upon tissue differentiation and structure. P: 204-203 with at least a C grade or transfer course 204-003. (FE)
204-320 Field Botany 3 cr.
Identification and natural history of plants indigenous to northeastern Wisconsin. Field trips required. P: 204-203 with at least a C grade or transfer course 204-003. (F)

204-340 Comparative Anatomy of Vertebrates 4 cr.
A lecture and laboratory course examining the anatomy of organs and organ systems of the vertebrates with emphasis on adaptations. Specimen primarily studied in the lab are the shark and cat. P: 204-203 with at least a C grade or transfer course 204-002. (F)

204-342 Ornithology 3 cr.
Overview of avian biology, emphasizing adaptation and ecology. Identification of North American bird species and other avian families. Region's most interesting birding areas. Field trips required. P: 204-203 with at least a C grade or transfer course 204-002. (SE)

204-343 Mammalogy 3 cr.
Comprehensive study of mammals, including systematics, anatomy, physiology, behavior, and ecology. Laboratory studies include work with specimens from the Richter Natural History Museum. Field trips required. P: 204-203 with at least a C grade or transfer course 204-002. (SO)

204-345 Animal Behavior 3 cr.
Biological study of animal behavior patterns; behavioral interactions of animals with their environment. P: 204-202 with at least a C grade or transfer course 204-002 or 478-102. (SO)

204-346 Comparative Physiology 3 cr.
Ways in which dissimilar organisms perform similar functions. Behavioral, physiological, and biochemical solutions to problems in human systems and invertebrates and vertebrates by their environment. P: 204-203 with at least a C grade or transfer course 204-902 and 225-212. (S)

204-353 Invertebrate Biology 4 cr.
Survey of invertebrate animals. A phylum-by-phylum survey examining defining characters, structure, function, life cycles, and ecology of invertebrate animals. Lab focuses on identification of invertebrates living in Wisconsin. Field trips required. P: 204-203. (FO)

204-355 Entomology 3 cr.
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. Field trips required. P: 204-203 with at least a C grade or transfer course 204-002; REC: 204-355. (FE)

204-402 Advanced Microbiology 3 cr.
Detailed study of microorganisms from viruses to fungi in their environment. Study of both free-living and pathogenic organisms and their degrading abilities. P: 204-302. (F)

204-407 Molecular Biology 3 cr.
See 225-407.

204-408 Molecular Biology Laboratory 1 cr.
See 225-408.

204-410 Developmental Biology 4 cr.
Processes of development—growth, differentiation, and morphogenesis during animal development; gastrulation, cleavage, gastrulation, and organogenesis. Observation of development of slime molds, echinoderms, amphibians, and chicks, using slides and live organisms. P: 204-203 with at least a C grade or transfer course 204-002 and 204-303 with at least a C grade. WE. (S)

216 Business Administration

216-202 Business and Its Environment 3 cr.
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. P: none. (F)

216-206 Law and the Individual 2 cr.
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. P: none. (F/S)

216-215 Introduction to Business Statistics 3 cr.
This course provides business students with an overview of how to use statistical analysis techniques to analyze and solve business-related problems. Investigation of topics such as collection, organization, and presentation of data, probability, sampling, descriptive statistics, and introduction to statistical decision. Statistical methods and decision analysis. Practical business examples are used to illustrate and apply the advanced statistical techniques. Computer applications are included. P: 600-260 or 255-205 or 216-215. (F/S)

216-285 Introduction to Management Information Systems 3 cr.
Introduction to Management Information Systems is designed to acquaint students with the role of information systems in organizations. The course will cover topics such as strategic role of information systems, operational decision making, information system technology (hardware and software), ethical issues, the Internet, the role of information systems, quality control and quality assurance and computer-aided exercises. P: 600-202 or 255-205 or 216-215. (F/S)

216-286 Travel Course: Mexican Business Exploitations 3 cr.
Economic development issues and business practices in Mexico; the cultural, political, social, economic and historical context in which Mexican businesses operate. P: cons of inst and prior trip are and financial deposit; REC: 298-203. OC.

216-317 Computer Optimization 3 cr.
Quantitative decision-making problems in business, including linear algebra and optimization models; use of computer applications in solving problems. P: 216-217 or 266-250. (S)

216-322 Introductory Marketing 3 cr.
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: 36 or more earned credits and min cum gpa of 2.5 or higher; or major/minor in business administration or accounting or special classification of PBM or grade improvement; and 298-203. (F/S)
216-327 Selling and Sales Management 3 cr.
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, impor-
tance of customer satisfaction, relationship of company philosophy to the
sales force, fundamentals of communication processes. P: 216-322. (F)

216-342 Cases in Personal Financial Planning 3 cr.
Practical case study approach to address basic functions of personal fi-
nancial planning, formulating financial goals and objectives, investment,
insurance, tax, retirement, and estate planning; basic approach to accu-
molating, consuming, and distributing assets in different life cycles of
individuals. P: 216-282. (S)

216-343 Corporation Finance 3 cr.
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; do-
mestic and international money and capital markets; ethical issues
relating to business financial management. P: 36 or more earned credits
and min cum gpa of 2.5 or higher; or major/minor in business administra-
tion or accounting or special classification of PBM or grad standing; and
107-300. (F,S)

216-344 Real Estate Principles 3 cr.
Nature of real estate ownership, importance of land contracts, title trans-
fer, and mortgage instruments; real estate valuation, finance and invest-
ment: impacts of taxation, insurance, marketing, and laws affecting real
estate (not intended to prepare students for real estate licensing examina-
tions). P: 216-343. (F)

216-345 Risk Management and Insurance 3 cr.
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: 216-343. (F,S)

216-347 Financial Markets and Institutions 3 cr.
Role of financial markets and institutions in formulating and managing finan-
cial resources; examination and analysis of financial intermediation; or-
ganization and functions of the U.S. and international financial systems;
structure and investment management strategies of specific financial in-
stitutions (such as banks, thrift, insurance and investment companies). P:
216-343. (F,S)

216-362 Human Resource Management 3 cr.
Personnel management: human resource planning, recruitment, selec-
tion, training, motivation, fringe benefits, salary and wages, labor rela-
tions, and performance evaluation. P: 216-382. (F,S)

216-382 Introductory Management 3 cr.
The realities of management in contemporary situations, emphasizing the
functional approach; understanding the management environment;
knowledge required by managers to function effectively and adjust to
rapid changes. P: 36 or more earned credits and min cum gpa of 2.5 or
higher; or major/minor in business administration or accounting or spe-
cial classification of PBM or grad standing; and 216-215 or 255-205 or
600-260. (F,S)

216-384 Production/Operations Management 3 cr.
The management of physical and human resources in the production and
operation functions for producing goods or providing services in manufac-
turing and processing enterprises. P: 216-182. (S)

216-386 Field Project in Business Management 3 cr.
Students are afforded the opportunity to work with an operating business
throughout a semester. Individual and/or teams of students conduct ap-
plied problem solving research, formulate potential solutions and present
those solutions to the business. P: 216-382. (F)

216-389 Organizational Behavior 3 cr.
A micro organizational behavior course examining motivation, leader-
ship, job satisfaction, learning, group dynamics, and stress in the organi-
zational setting. P: 216-382. (F,S)

216-400 Study Abroad: The Hague, Netherlands 12-15 cr.
See 246-400. OC.

216-421 International Marketing 3 cr.
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 opportuni-
ties and the threats that emanate from the global marketplace are high-
lighted, and the need for an international marketing approach on the part
of individuals and institutions is emphasized. P: 216-322. OC. (S)

216-423 Advertising 3 cr.
Developing and executing advertising campaigns: how these campaigns
fit into the total marketing mix; social, legal, and economic consider-
ations and constraints involved in the advertising campaign planning pro-
cess. P: 216-322. (F,S)

216-424 Marketing Research 3 cr.
Techniques of obtaining and analyzing information about marketing
problems; obtaining and interpreting data from primary and secondary
sources for marketing decisions. P: 600-260 or 216-215; and 216-322. (F)

216-426 Marketing Management 3 cr.
Capstone course in marketing. Strategic interrelationships, development
of analytical techniques and abilities, and decision making in marketing.
P: st at and 216-322; and 216-325, 327, 421, 423, 424, 425 or 428. (S)

216-472 Practicum in Marketing Research 3 cr.
Provides students with an opportunity to apply their knowledge of market-
research in hands-on fashion. Students will be doing comprehensive
marketing research projects on behalf of area businesses. P: 216-424. (S)

216-428 Consumer Behavior 3 cr.
Theories of buyer behavior, including ultimate and industrial customers,
and their implications for marketing management. P: 216-322. (F,S)

216-442 Principles of Investment 3 cr.
Fundamental concepts, theories, and techniques relating to investing; se-
curities markets, investment vehicles and environments, economic, in-
dustry and security analyses, portfolio construction and management;
active and passive investment strategies; global investment perspectives
and their impact on investors; blend of facts and theories relating to tradi-
tional and modern portfolio approaches; ethics in investment decisions;
applied computer-assisted investment decisions. P: 216-343; and 216-
215 or 255-205 or 600-260. (F,S)

Conceptual framework and applications of financial management deci-
sions of multinational firms in a global setting; survey of the interna-
tional financial environment; determinants of international portfolio and
direct investment capital flows; assessment and management of impacts of for-

gain 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: 216-343: REC:
216-442. (S)

216-446 Advanced Corporation Finance 3 cr.
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; work-

ing capital management; long-term financing decisions: valuation of
mergers and acquisitions; international capital budgeting. P: 216-345;
REC: 216-442 and 347. (F,S)
216-447 Advanced Investments 3 cr.
In-depth coverage of theories and applications of portfolio construction, analysis, and management of investment portfolios under the context of efficient and inefficient market hypotheses; computer models for portfolio construction and management; fundamental techniques in selection, analysis and management of stocks and bonds; reducing investment risk inherent in asset selection and management through the use of financial derivatives; techniques for measuring investment performance; global investment decisions. P: 216-442. (F)

216-450 Bank Administration 3 cr.
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 and regulation on the financial industry. P: 216-347; REC: 216-442. (F)

216-452 Advanced Microcomputer Business Applications 3 cr.
Use of computer technology in management decision-making through a variety of decision-making models. Review and applications of management information systems, organizational concepts, spreadsheet software and modeling. C.L.L. 107-452. P: 216-215 or 255-205 or 600-260. (F)

216-460 Human Resource Development 3 cr.
This seminar focuses on the primary functions of human resource development—training and development, career development, and organizational development. Activities and processes to assist an organization in becoming a learning organization are addressed. P: 216-362. (S)

216-462 Seminar in Human Resource Management 3 cr.
Analysis of human resource problems and issues and their translation into corporate policies: urban, cultural and legal realities in human resource matters; decisions affecting the development and management of human resource policies. P: 216-362, (SE)

216-467 Compensation and Benefits Planning 3 cr.
Theories of compensation and work motivation and their impact on various reward systems and the rationale for decisions affecting the selection of benefits. P: 216-362. (F)

216-472 Seminar in Leadership 3 cr.
The course examines contemporary ideas of leadership and issues leaders face will face in guiding the organization of the future. The topic is addressed from the perspective of skills and abilities that can be acquired and applied by the student. Theoretical concepts are tied into practice through a course project in the University or the community. The course is structured in a seminar format with an emphasis on discussion. P: 216-382. (F)

216-480 Quality Management 3 cr.
The course introduces the philosophical and theoretical foundations of quality management, the individuals who have developed and popularized the components of quality management, the practical tools and techniques of quality management, and the role of quality management in modern organizations. P: 216-382. (F)

216-482 Strategic Management 3 cr.
The course focuses on the concept of strategic planning, formulating organizational strategy, and initiating and managing the implementation process. Issues at the strategic level downward to divisional, functional, and project levels are explored in an integrative fashion: Strategic management, situation analysis, competitive analysis, strategies for single and multiple business units, and the seven planning tools of continuous improvement. P: 216-382. (S)

216-485 Managerial Economics 3 cr.
See 298-485.

216-489 Organization Theory 3 cr.
A macro organizational behavior course examining organizational environments, structure, power and politics, conflict, innovation, technology, and culture in the organizational setting. P: 216-382. (F)

216-490 Seminar in Business Problems 3 cr.
This capstone seminar is an opportunity for business administration and accounting majors to apply the theoretical, methodological, and personal knowledge and skills they have developed throughout their course of study. Topics vary. P: ir st; and major in business administration or accounting. (F/S)

225 Chemistry

225-101 Fundamentals of Chemistry 3 cr.
A chemistry course for non-science majors. This course promotes basic chemical literacy in the lecture and lab by presenting phenomena, methodology, and theory as needed to allow for an understanding of issues. Some of the issues include air pollution, global warming, water pollution, alternative energy sources, and drugs and plastics. P: none. (F)

225-108 General Chemistry 5 cr.
Survey of basic concepts of matter: its measurement, properties and states; atomic structure and chemical bonding; solutions; acid-base theories, introduction to organic chemistry and biochemistry. Full credit not awarded for both 225-108 and 225-211 or 225-212. P: 912-094 or Math Placement of 600-101 or greater. ES-1. (F/S)

225-211 Principles of Chemistry 1 5 cr.
Atomic structure, chemical bonding, periodic table, thermodynamics, properties of gases, molecular structure and properties; solutions, chemical equations; thermodynamics, kinetics, chemical equilibrium, solubility, acid-base reactions, oxidation-reduction, nuclear reactions. Full credit will not be awarded for both 225-211 and 225-108. P: 600-101 or transfer course 600-004 or Math Placement of 600-104 or greater. ES-1. (F/S)

225-212 Principles of Chemistry II 5 cr.
Atomic structure, chemical bonding, periodic table, thermodynamics, properties of gases, molecular structure and properties; solutions, chemical equations; thermodynamics, kinetics, chemical equilibrium, solubility, acid-base reactions, oxidation-reduction, nuclear reactions. Full credit will not be awarded for both 225-212 and 108. P: 600-104 with at least C grade or Math Placement of 600-202 or greater; and 225-211 with at least C grade. (F/S)

225-300 Bio-Organic Chemistry 3 cr.
Those aspects of the field pertinent to students entering the biologically related disciplines: Basic organic chemistry, natural products and molecules important to biological systems. Full credit not given for both 225-300 and 225-302 or 225-303. P: 225-212 with at least C grade or 225-108 with at least C grade. (S)

225-301 Bio-Organic Chemistry Laboratory 1 cr.
Optional laboratory course to accompany 225-300. Credit not granted for both 225-301 and 304. P: 225-300 or conc enr (S)

225-302 Organic Chemistry I 3 cr.
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. Full credit will not be awarded for both 225-300 and 225-302 or 225-303. P: 225-212 with at least C grade. (F)

225-303 Organic Chemistry II 3 cr.
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. Full credit will not be awarded for both 225-303 and 300. P: 225-302 with at least C grade. (S)

225-304 Organic Chemistry Laboratory I 1 cr.
Basic and intermediate synthesis, basic and intermediate instrumental techniques in organic chemistry. Credit will not be granted for both 225-304 and 301. P: 225-302 or conc enr. (F)
225-305 Organic Chemistry Laboratory II 1 cr.
Basic and intermediate synthesis, basic and intermediate instrumental techniques in organic chemistry. P: 225-303 or conc enr and 225-304 with at least a C grade. (S)

225-311 Analytical Chemistry 4 cr.
Theory and practice of chemical analysis. Statistics; gravimetric analysis; acid-base chemistry; precipitation, complexometric and redox titrations; electrochemistry; spectrophotometry; atomic absorption; emission methods; separation methods (gas/liquid chromatography). P: 225-212 with at least a C grade; and 362-207 or conc enr or 478-207 or conc enr. (S)

225-320 Thermodynamics and Kinetics 3 cr.
See 754-320.

225-321 Structure of Matter 3 cr.
See 754-321.

225-322 Thermodynamics and Kinetics Laboratory 1 cr.
See 754-322.

225-322 Structure of Matter Laboratory 1 cr.
See 754-323.

225-336 Biochemistry 3 cr.
Nature and function of the important constituents of living matter, their biosynthesis and degradation; energy transformation, protein synthesis and metabolic control. Field trips required. P: 225-303 and 204-202 with at least a C grade; or 225-300 and 225-301 and 204-202 with at least a C grade. (F)

225-331 Biochemistry Laboratory 1 cr.
Laboratory course to accompany 225-330. P: 225-330 cr conc enr. (F)

225-402 Advanced Organic Chemistry 3 cr.
Physical organic approach to chemistry: reaction mechanisms, molecular orbital theory, conservation of orbital symmetry; isomerism, stereochemistry, linear free energy relationships, isotope effects, pericyclic reactions, photochemistry, natural products and advanced topics in molecular spectroscopy. P: 225-303 with at least a C grade; REC: 225-321. (FO)

225-403 Advanced Organic Chemistry Laboratory 1 cr.
Laboratory course to accompany 225-402. Advanced molecular spectroscopy, organic qualitative analysis, physical organic chemistry experiments. P: 225-402 or conc enr. (FO)

225-407 Molecular Biology 3 cr.
Molecular approaches to biological problems, emphasizing study of informational macromolecules. Topics include replication, control, expression, organization, and manipulation of genes; RNA processing; protein processing; transposons; oncogenes; growth factors; genetic control of development and the immune system. Field trips required. C.L: 204-407. P: 204-303 with at least a C grade or 225-330 with at least a C grade; REC: 225-300 or 303. (S)

225-408 Molecular Biology Laboratory 1 cr.
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). C.L: 204-408. P: 225-407 or conc enr or 204-407 or conc enr; REC: 225-301 or 305. (S)

225-410 Inorganic Chemistry 3 cr.
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: 225-321 or conc enr. (SO)

225-411 Inorganic Chemistry Laboratory 1 cr.
Laboratory course to accompany 225-410. P: 225-410 or conc enr. (SO)

225-413 Instrumental Analysis 4 cr.
Theory and practice of analysis by instrumental methods, including methods based on absorption and emission of radiation, electroanalytic methods, chromatographic methods and radiochemical methods. Field trips required. P: 225-311 with at least a C grade and 225-321 or conc enr; REC: 225-303. (F)

225-417 Nuclear Physics and Radiochemistry 3 cr.
See 754-417.

225-418 Nuclear Physics and Radiochemistry Laboratory 1 cr.
See 754-418.

225-420 Polymer Chemistry 3 cr.
An introduction to the synthesis, characterization, and properties of industrial polymers. P: 225-321 or conc enr. (SO)

225-434 Environmental Chemistry 3 cr.
See 362-434.

225-435 Environmental Chemistry Laboratory 1 cr.
See 362-435.

225-495 Research in Chemistry 3 cr.
Variable. P: 225-413. (F,S)

242 Communication and the Arts

Survey of the visual arts: prehistoric to the late Gothic period. P: none. FA. (F)

242-103 History of the Visual Arts II: Renaissance to Modern 3 cr.
Survey of the visual arts: early Renaissance to the modern period. P: none. FA. (S)

242-121 Masters and Masterpieces of Music 3 cr.
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. P: none. FA. (F)

242-141 Introduction to the Theatre Arts 3 cr.
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. Field trips required. P: none. FA. (F)

242-142 Performing Arts Perspectives: Experience and Evaluation 3 cr.
Understanding the elements of performance from the perspective of the audience and critic; includes research prior to performances, performance attendance, artist interviews and writing of critiques. P: none. FA. (SO)

242-160 Introduction to Language 3 cr.
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. P: none. (F,S)

242-202 Concepts and Issues of Modern Art 3 cr.
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. P: none. FA. (F,S)

242-221 Popular Music Since 1955 3 cr.
Evolution of popular music since 1955 and its relationship to society, especially rock and roll in the 1960s and early 1970s, the period of greatest stylistic expansion and also the period in which the music was most intimately intertwined with its social milieu. P: none. FA. (F)

242-225 American Indian Studies: Arts and Ceremonial Traditions 3 cr.
See 493-225. El.S.

See 493-226. El.S.
242-231 Introduction to Graphic Communications 4 cr.
Basic principles and potentials of visual communication: historical perspectives of graphical signs, the influence of technology, application in commerce, basic principles of typography and design. One credit computer laboratory provides digital design tool skills. P: none. (FS)

242-255 Introduction to Arts Management 3 cr.
Aspects of arts administration, including artistic/aesthetic, social, cultural, political, ethical and economic components such as promotion and marketing, audience development, interaction with government agencies, grant writing, etc. P: 242-261. (S)

242-261 Foundations I: Aesthetic Experience 3 cr.
Focusses on escaping habitual ways of perceiving and redeveloping subjective feeling from which aesthetic responses come: starts with the formal elements and vocabulary of visual arts and finds their parallels in other arts and other environments. P: none. FA. (FS)

242-263 Foundations II: Arts and Society 3 cr.
Focusses on the social role of the arts in both western and non-western societies, including the arts as an expression of religion, personal and political ideology and worldview; the audience for the arts, and the economic basis of the arts. P: 242-261. (S)

242-372 Women in the (Visual) or (Performing) Arts 3 cr.
Studies artistic works by women in order to re-value their place in history and development of the arts. May repeat for credit when a different topic is studied. P: none. FA. (SE)

242-301 Communication and the Arts: Onondaga Language Project 3-5 cr.
A course on the Onondaga language typically offered in the Onondaga community with the aid of native speakers. Emphasis varies with student interest. Tools and resources for further independent study are stressed. Repeatable to 9 cr. P: none. EL. (FS)

242-322 Language and Society 3 cr.
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: 242-166; REC: jr st. OC. (F)

242-327 Cross-Cultural Communication: Jazz History 3 cr.
Cultural conflicts, influence and enrichment that arise when differing traditions of the arts come into contact with jazz history. P: none. EL/FA. (F)

242-328 Cross-Cultural Communication: Musical Theatre History 3 cr.
Cultural conflict, influence and enrichment that arise when differing traditions of the arts come into contact with musical theatre and its development. P: none. FA. (SE)

Survey of tribal, folk and non-western art music with an emphasis on cultural, social, religious, political and economic context. P: none. OC/FA. (FD)

242-331 Graphic Communications Studio I 3 cr.
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: 168-107 or 242-231 and 168-105 or 196 or 243 or 246-243. (FS)

242-332 Graphic Communications Studio II 3 cr.
Project-based problem-solving techniques in graphic communication: expansion of design and technological skills. Intermediate and advanced design techniques using digital design tools. P: 242-331 or 242-333 with at least a C grade; REC: 246-106 or 337. (FS)

242-355 Funding and Financial Issues in the Arts 3 cr.
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: 242-255. (F)

242-356 Promoting the Arts 3 cr.
Approaches to promoting the arts, developing audiences through marketing, using various public relations and advertising tools and techniques. P: 242-255. (S)

242-357 Arts in the Community 3 cr.
Fieldwork investigation of regional arts organizations and examination of special needs of rural and small city communities, issues of arts education/long learning in and through the arts. P: 242-255. (F)

242-362 Aesthetic Awareness: Psychology of Aesthetic Perception 3 cr.
The psychological and physiological processes that give rise to aesthetic perception and arousal; current work on cognition and perception and the relationships between these processes and art and other sources of the aesthetic experience. P: 242-261; REC: 481-210 or 820-102. (FE)

242-370 Modern American Culture 3 cr.
Fad, fashion and popular art; the media, music, advertising and entertainment as they express the intimate unguarded concerns of modern America. P: none. (F)

242-371 World Art 3 cr.
Survey of selected non-western art and architecture with an emphasis on cultural, social, religious, political and economic context. P: jr st. (SE)

242-375 Communication Skills: Language of Metaphor 3 cr.
Examines metaphors and the metaphorical process and seeks to develop skills in creating and understanding metaphors, especially those that have become an unconscious part of our language and culture. P: none; REC: general education requirements in arts and humanities. (S)

242-379 Ancient Mesopotamian Art, Architecture, and Culture 3 cr.
See 493-379.

242-389 Travel Course: The Arts Abroad 3 cr.
Group study of the arts abroad: performing arts events, galleries, museum collections, national art groups; development of historical perspective as well as awareness of contemporary art; experience. C.L.: 492-365; P: cost of air and prior trip art and financial deposit. OC.

242-393 Inter-Arts Workshop 3 cr.
"Inter-Arts" consists of investigations that draw on varied practices, genres, and media across the arts and other disciplines. In this course students will consider historical and contemporary cases of inter-arts works as preparation for creating their own works. Additional course fee required. P: jr st; REC: 242-261 or 263; or experience in the arts. (SE)

242-430 Information, Media and Society 3 cr.
See 520-430.

242-433 Advanced Graphics Studio 3 cr.
Applying concepts and skills in graphic design, technology and management in advanced communications design projects such as web development and multimedia authoring. Repeatable to 9 cr. P: 242-332 with at least a C grade. (FS)

242-435 Practicum in Integrated Publishing 1-4 cr.
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. Repeatable to 9 cr. P: jr st and 242-332; REC: 460-460. (FS)

242-436 Environmental Design Studio I 3 cr.
See 951-436.

242-437 Environmental Design Studio II 3 cr.
See 951-437.
242-338 Environmental Design Studio III 3 cr.
See 951-438.

242-339 Environmental Design Studio IV 3 cr.
See 951-439.

242-455 Practicum in Arts Management 3 cr.
Experience in completion of a series of client-based projects, working
both in teams and individually. Projects may deal with marketing, audi-
cence analysis and development, funding, and/or educational aspects
of arts management. P: 242-335 and 336 and cons of instr. (F,S)

242-464 Arts and Society Seminar 3 cr.
A study of the interrelationships between the arts and society. Topics
including the arts as community, political or religious expression, audi-
cences for the arts, economics and the arts, the role and training of the
artists, and art criticism will be examined for the impact each has upon
the other. P: sr st and 242-263; REC: 5 cr upper-level coursework in arts
or communication and the arts. (S)

242-477 Women as Creative Agents 3 cr.
The multiple ways women have exercised their creative capacities and
the external and internal factors that support creative work. Examines
some of the assumptions about creativity in women by comparing them
with the evidence from biographies of creative women in several fields.
P: 242-475 or 451-205 or 242-247 or 242-364 or jr st. (SO)

242-497 Internship 3-12 cr.
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. No more
than 3 credits may be used to meet requirements for a major or minor.
P: 242-432 and jr st. (F,S)

246 Communication Processes

246-102 Introduction to Mass Communication 3 cr.
Survey of the interplay between American society and mass media, both
print and broadcast; commercial, cultural, and political functions of
the media; popular taste; the pseudo-environment of symbols; the concept
of a free and responsible press. P: none. (F)

246-133 Fundamentals of Public Address 3 cr.
Examination of the principles of oral message preparation and presenta-
tion. Students will prepare and present actual public communications.
P: none. (F,S)

246-166 Fundamentals of Interpersonal Communication 3 cr.
Principles of personal interaction as a basis of communication: role of
communication in interpersonal relationships; role of identity and self-
conception in communication behavior; significance of information recep-
tion and evaluation in the effectiveness of communication. P: none. (F,S)

246-200 Communication Processes: An Introduction 3 cr.
Overview of a variety of communication processes: what they share, how
they differ; their uses for communication, for art, and for individual
growth, their effect on the social fabric; includes practical experience
as well as a theoretical framework; P: none; REC: one prior communica-
tions course. (F)

246-201 Human Information Processing 3 cr.
The study of human cognition from an information processing perspec-
tive. Examines the processes of sensation, perception, memory, thinking,
language, and problem solving with special attention to their roles in
communications. P: one prior communications course; REC: 246-200 or
820-102. (S)

246-203 Newswriting Laboratory 3 cr.
Assignments in gathering and writing news, copy editing; emphasis on
developing an objective, clear, accurate and forceful style. P: 352-100 or
104; or ACT English score of 25 or higher; REC: 352-105. (F,S)

246-204 Travel Course: Communications Abroad 3 cr.
An overview of how the mass media have developed in other nations and
how they differ from media in the United States. Countries to be visited
will vary. Repeatable to 3 cr. P: cons of host and prior trip arrr and finan-
cial deposit; REC: 246-102. (OC)

246-243 Introduction to Photography 3 cr.
The creative process in photography is studied to develop visual percep-
tion through active participation in discussions and photographic exer-
cises, including analysis of student work. 35mm camera required. C.L.
168-243. P: none; REC: one prior communications or art course. (F,S)

246-253 Practicum in Print Journalism I 1-3 cr.
Supervised experience on the staff of the student newspaper. Providing
for development of skills in some facet of newspaper operation: report-
ing, feature writing or photojournalism. Repeatable to 6 cr. P: 352-100 or
352-164 or ACT English score of 25 or higher; REC: 246-203 or 246-243
or 168-243. (F,S)

246-258 Business and Professional Communication Skills 3 cr.
Business and Professional Communication Skills provides the student
with the information and practice to develop communication skills in
business writing, employment interviewing, and business speaking to in-
form and persuade. P: major/minor in COPR or major/minor in COP or
pre UW-Green Bay major/minor in PCOP. (F,S)

246-282 Principles of Public Relations/Corporate Communications
3 cr.
An overview of topics, issues, concepts, and practices of public relations/
corporate communication; individual and group case work. P: none. (F)

246-303 Feature Writing 3 cr.
Writing feature articles for magazines and newspapers; emphasizes infor-
mation gathering, professional standards, and effective style. P: 246-203
or 352-105. (F)

246-305 Elements of Electronic Media 3 cr.
Exploring the potentials of electronic media: analyzing communication
strategies employed in these media; examining policy and practice in
commercial and educational operations and the forces that control them.
P: 246-102; REC: 246-243. (F)

246-306 Radio Broadcasting 3 cr.
Commercial and non-commercial radio as a communications medium
and as a business enterprise: radio audiences, audience ratings, program-
ming and program formats, news, advertising, promotion and sales. P:
246-102. (F)

246-307 Television Production Techniques 3 cr.
Exploration of various uses of television as an informative, persuasive,
and entertainment medium. Combines analysis of current uses of the me-
dium in a professional context with practical experience in planning and
producing a finished product for television. P: 246-305. (F,S)

246-308 Information Technologies 3 cr.
See 520-308.

246-309 Electronic Media Commercial Campaigns 3 cr.
TV/media commercials as a unique form of communication. Through the
use of student projects, both individual and team, the demands and rigors
of the creative process are revealed. Legal and ethical considerations are
also discussed. P: 246-305. (F)

246-320 History of the English Language 3 cr.
The origins, development, and cultural background of the English lan-
guage; evolution of pronunciation and spelling; grammar, vocabulary,
meaning and usage in Old, Middle, and Modern English, including con-
temporary English dialects. P: none; REC: 242-160. (F)

246-322 Modern Linguistics 3 cr.
Structure and system in language, with attention to modern English and
including principles of structural, computational and generative-transforma-
tional linguistics. P: none; REC: 242-160. (F)
246-325 Applied Linguistics 3 cr.
Application of linguistic principles to specific problem areas such as language learning, reading, English as a second language and writing; special emphasis upon problems faced by teachers. P: 242-160. (SE)

246-326 Modern Semantics 3 cr.
A study of meaning of language: how meanings of words and phrases change, how meanings may be measured, the relations between logic and meaning, cultural differences in meaning due to language structure differences, and the effects of situation on meaning. P: none; REC: 242-160. (SE)

246-327 Error Analysis and Treatment in Second Language Learning 3 cr.
Analysis of errors produced by second language learners, their implications for understanding the process of interfering the rules of a second language and strategies for responding to them. P: 242-160, (SO)

246-333 Persuasion and Argumentation 3 cr.
Awareness, appreciation, understanding, and skill in contemporary forms and methods of oral persuasion and argumentation. P: 246-133, REC: 246-200. (S)

246-335 Organizational Communication 3 cr.
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: 246-133, 200 or 201; REC: 246-166. (F)

246-336 Theories of the Interview 3 cr.
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: 246-133, 260 or 201; REC: 246-166. (F)

246-337 Small Group Communication 3 cr.
The role communication plays in small group processes; focuses on development of the special communication skills needed in the small group setting. P: 246-133, 200 or 201; REC: 246-166. (F)

246-343 Photography II 3 cr.
Black and white photography and darkroom printing techniques. Camera required. Additional course fee required. C.L. 168-343, P: 246-243 or 168-243. (F, S)

246-344 Photography III 3 cr.
Black and white photography, allied media and applications of photography; photographic documentation. Camera required. Repeatable for credit with consent of instructor. Additional course fee required. C.L. 168-344, P: 246-343 or 168-343. (F)

246-353 Practicum in Print Journalism II 1-3 cr.
Supervised experience on the staff of the student newspaper, preparing for the development of advanced skills in some facet of newspaper operation: reporting, feature writing, photojournalism or editing. P: 246-203, 303 or 253; REC: prior experience on 4th Estate. (F, S)

246-380 Communication Law 3 cr.
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: jr st; REC: 9 cr of communication courses. (S)

246-390 Scientific and Technical Communication 3 cr.
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: 352-100 or 246-164 or ACT English score of 25 or higher, and completion of natural science general education requirement. (S)

246-400 Study Abroad: The Hague, Netherlands 12-15 cr.
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. C.L. 216-400; P: consent of advisor and prior arr with International Education Office. OC. (F, S)

246-403 Advanced Reporting 3 cr.
In-depth localized reporting of contemporary affairs: emphasis on research skills, writing styles and the values at state in the treatment of each story. Student work is designed for newspaper publication or radio broadcast. P: 246-203, REC: 246-306 or 353. (S)

246-443 Advanced Problems in Photography 3 cr.
Participants identify an area of interest and the problems implied and are directed to appropriate resources. Seminars support production of a major photographic portfolio. 35 mm camera required. Additional course fee required. Repeatable to 9 cr. C.L. 168-443, P: 246-344 or 168-344. (S)

246-445 Human Communication Theory 3 cr.
Integration of a variety of theories to promote sensitivity to and understanding of the complexity of human communications; examine the construction of various communication theories, contexts and processes in human communication. P: 9 cr in upper-level communication courses. (S)

246-460 Publications Management 3 cr.
An analytical, problem-solving approach to communication through print media that applies to a wide variety of situations encountered by publication professionals: strategies for organizing a publication effort; planning, producing and evaluating publications; impacts of technology. P: jr st and prior coursework in communications. REC: 246-203 or 243 cr 242-231. (S)

246-480 Cases in Public Relations and Corporate Communications 3 cr.
This course provides an examination of the theory and practice of public relations/corporate communication. Students will integrate their knowledge of oral, written, and visual communication to solve real-world cases. P: 246-282; and 246-206 or 201; REC: 246-280. (S)

246-487 Communication Audits 3 cr.
A communication audit identifies and analyzes strengths and weaknesses of communications within an organization. In conducting an audit, students gain practical experience as well as furthering their understanding of theoretical concepts in organizational communication. P: 246-335 or 336; REC: one course in statistics. (S)

246-493 Photography Portfolio 3 cr.
Preparation of a major portfolio, documentation of work samples, resumes, and supporting statements. Portfolio practices in various arenas of photography. Additional course fee required. C.L. 168-493, P: sr st; and 168-443 or 246-443. (F, S)

255 Community Sciences

255-205 Social Science Statistics 4 cr.
Application of statistics to problems of the social sciences and of statistical techniques in problem definitions; hypothesis construction; and data collection, processing and evaluation. Not open to students who have credit for 600-268. P: 600-101 or Math Placement of 600-101/260 or greater. (F, S)

255-301 Foundations for Social Research 3 cr.
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: 233-205 or 600-200 or 210-215. (F, S)
265-302 Methods of Participant Observation and Interviewing 3 cr. Instruction and experience in extended interviewing and participant observation which are principal data gathering methods in sociology, anthropology and psychology as well as practical methods in applied fields such as social services, community development, public health and development studies; theoretical and ethical issues relating to these methods of research. P: one lower-level course in psychology, sociology or anthropology. (S)

266 Computer Science

266-161 Overview of Programming Constructs with Visual Basic 3 cr. The course introduces the student to the PC environment and fundamental logic constructs and programming tools used by programmers. Students use Visual Basic to write programs and design user interfaces with a database. Credit will not be given to those with credit in 266-256 or 266-266. P: none. (F,S)

266-241 Discrete Mathematics I 4 cr. Fundamentals of number theory, mathematical induction, matrix algebra, graphs, directed graphs and trees. P: 600-104 or Math Placement 600-202 or greater. (F)

266-242 Discrete Mathematics II 4 cr. A continuation of Discrete Mathematics I. Sets, functions, logic, Boolean algebra and logic circuits, equivalence relations, combinatorics, recurrence relations. P: 266-241. (S)

266-256 Software Design I 4 cr. 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. Credit will not be given to those with credit in 266-266. P: 266-181 or knowledge of programming language. (F,S)

266-257 Software Design II 4 cr. A continuation of 266-256, this course deals with larger projects, more complex problems, and group work. It also develops the object-oriented design paradigm to include inheritance and polymorphism. Credit will not be given to those with credit in 266-266. P: 266-256. (F,S)

266-266 Accelerated Course in Software Design 5 cr. Designed for students with software design skills, this course covers many of the same topics as 266-250/257 combined. It will draw upon a student's experience to enable them to design useful applications. Only four credits awarded for students with credit in 266-256; credit will not be given to students with credits in 266-257. P: course in software design and cons inst. (F,S)

266-270 C and Linux 2 cr. An introduction to the C programming language and the Linux operating system (a variant of the UNIX operating system). P: 266-257 or 256. (F)

266-331 Internet Programming 3 cr. Topics covered include sockets, graphics, user interface design, threading, multimedia files, streams, databases and client/server programming all in Java. P: 266-257 or 266. (S)

266-350 Numerical Analysis 3 cr. See 600-350.

266-351 Data Structures 4 cr. Concepts involved in storage, retrieval and processing data. Emphasis is on the design of software with complex data retrieval needs and on nonlinear structures such as generalized lists, trees, and graphs. P: 266-371; and 266-242 or cons enr. (S)

266-352 Computer Graphics 3 cr. Basic techniques of computer graphics, such as point and line plotting, clipping and windowing; use of graphics hardware; construction of graphics packages. P: 266-241 and 237. (S)

266-353 Computer Organization and Programming 3 cr. Data representation, assembly language, procedure call protocols, memory, cache, and bus organizations, comparison of processor architectures, I/O systems, logic circuits, Boolean algebra. P: 266-257 or 266; and 266-241 or cons enr. (F)

266-357 Theory of Programming Languages 3 cr. 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: 266-371; and 266-241 or cons enr. (F)

266-359 Data Communication and Computer Networks 3 cr. Transmission media, analog and digital signals, modulation, network topologies, local and wide area network protocols, error detection, encryption, compression, security. P: 266-241 and 270. (S)

266-371 C++ and Object-Oriented Design 3 cr. This is an introduction to Object-Oriented Design and the language C++. P: 266-257 or 266. (F,S)

266-372 Object-Oriented Design and Programming 3 cr. This course covers standard object-oriented techniques used to design and program large software projects. P: 266-371. (S)

266-451 Database Management Systems 3 cr. Relational database technology, structured query language, experience on both mainframe and PC databases, security, integrity rules, design issues, normal forms, and entity-relation modeling. P: 266-257 or 266; REC: 266-242. (F)

266-452 Operating Systems 3 cr. Techniques and philosophies behind management of computing resources such as memory management, process management, scheduling, concurrency issues, auxiliary storage management. P: 266-270; REC: 266-351 and 353. (SE)

266-455 Microprocessors and Digital Electronics 3 cr. See 734-455.

266-487 Compiler Theory 3 cr. Software concepts, focused primarily on the theory of compilers, including formal language definition, dictionaries, symbols tables, text scanning, parsing, arithmetic expressions and Polish expressions. P: 266-333 and 357. (SO)

266-490 Capstone Essay in Computer Science 1 cr. A project course in which a student does reading in computer science journals and produces a major research paper. P: 18 earned upper-level cr in computer science. (F,S)

296 Earth Science

296-102 Introduction to Earth Science 3 cr. The properties of the earth's physical environment and the variety of processes operating within it; basics of physical and historical geology, soil science, oceanography, meteorology and astronomy. Students will not receive credit for both 296-102 and 296-202. Field trips required. P: none. ES-1. (F,S)

296-110 Dinosaurs: Rise to Ruin 1 cr. Explores dinosaurs, their ancestors, rise to preeminence, reasons for success and possible reasons for their extinction. P: none.

296-202 Physical Geography 4 cr. 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 296-202 and 296-102. Field trips required. P: none. ES-1. (F,S)
298-203 Geologic Evolution of the Earth 3 cr.
The physical history of the earth through geologic time and the attendant evolution of plants and animals; principles governing interpretation of the rock and fossil record; unraveling of events culminating in modern landscape and life forms. Field trips required. P: 296-202. (S)

298-204 Geologic Evolution of the Earth Laboratory 1 cr.
Practical application of geologic principles and techniques to interpretation of earth history. Field trips required. P: 296-203 or conc enr. (S)

296-222 Ocean of Air: Weather and Climate 3 cr.
See 416-222, ES-1.

296-340 Rock and Mineral Resources 3 cr.
Macroscopic identification of common rocks and minerals, formation and uses of rock and mineral resources, and the environmental impact of resource exploration and extraction. Field trips required. P: 298-202. (F)

296-402 Stratigraphy and Sedimentation 3 cr.
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. Field trips required. P: 296-202 and 203. (F,E)

296-432 Hydrogeology 3 cr.
See 362-332.

296-470 Quaternary Geology 3 cr.
See 416-470.

296-492 Special Topics in Earth Science 1-4 cr.
Topics not covered by regular courses, such as mineralogy-petrology, crustal movements, geologic field methods, geology of Wisconsin, and others. P: 296-202. (F,S)

298 Economics

298-202 Macro Economic Analysis 3 cr.
Introduction to the behavior of our economy in the aggregate, focusing upon the processes by which the economy achieves a certain level of output and employment. P: none. SS-1. (F,S)

298-203 Micro Economic Analysis 3 cr.
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. SS-1. (F,S)

298-206 Macro Economics Laboratory 1 cr.

298-301 Economic and Social Security 3 cr.
The income distribution system in the U.S. economy and the various institutions and programs developed to modify the system to provide an income to all citizens. P: jr st. (F)

298-302 Intermediate Macro Economic Theory 3 cr.
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. P: 298-202. (F)

298-303 Intermediate Micro Economic Theory 3 cr.
Theories used in explaining the behavior of consumers and producers in choices relating to the production, exchange and distribution of output. P: 298-203. (S)

298-304 Contemporary Labor Markets 3 cr.
The determination of wages and employment at the level of the firm, the industry, and the total economy. P: 298-202 and 203. (S)

298-307 History of Economic Thought 3 cr.
Historical development of contemporary economic thought from the mercantilist period to the present emphasizing contributions of major schools of economic thought. P: jr st. (F)

298-308 Business Cycles 3 cr.
Description and recent history of business cycles, leading explanations of levels of employment, output and prices, savings and investment, forecasting; governmental policy. P: 298-202 and 203. (F,S)

298-310 Introduction to Quantitative Analysis and Econometrics 3 cr.
An introduction to the use of mathematical concepts and techniques in the analysis of economic phenomena and the use of statistical methods to estimate equations describing economic events. P: 298-203 and 600-201 or 202 and 216-21 or 255-205 or 600-260. (S)

298-330 Money and Banking 3 cr.
Analysis of money as an economic institution and of the organizational structure of the commercial and central banking system in the U.S.: monetary theory and policy in the national and international setting. P: 298-202. (F,S)

298-402 Environmental and Resource Economics 3 cr.
See 835-402.

298-403 International Trade 3 cr.
Theory and concepts of international trade and finance; contemporary conditions and problems in international economic relations. P: 298-202 and 298-203 and jr st. (S)

298-404 Economics of Developing Areas 3 cr.
Social and economic factors underlying economic development; leading issues in the theories of economic growth; comparative rates of progress in different countries. P: 298-202 and jr st. (F)

298-406 Comparative Economic Systems and Institutions 3 cr.
Contemporary functioning of different economic systems and institutions; contrasts market-directed economies and centrally planned economies. P: jr st and 298-202. (F)

298-409 Public Finance and Fiscal Policy 3 cr.
See 835-409.

298-485 Managerial Economics 3 cr.
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. C.L. 216-485. P: 298-202 and 203. (S)

302 Education

302-202 Changes in American Education 3 cr.
Explores education as a lifelong learning process, not limited to formal schooling; decision-making within institutions concerning goals, methods, financing, time-structuring and value issues; cross-cultural comparisons between American and other educational systems. P: none.

302-203 Introduction to Environmental Education in the Schools 3 cr.
Philosophies, instructional processes and resources for environmental education. Introduction to problem focused, multidisciplinary environmental education theory and practice; examination of ways to apply learning to future teaching roles in and out of the classroom. P: 302-361, 362 and core enr in 325. (F,S)

302-206 Cultural Images in Materials for Children and Adolescents 3 cr.
The varied images of ethnic and racial groups and sex roles as developed in textbooks, textbooks and other instructional materials for children and adolescents; detecting negative images and building positive images. P: none. E&S-2. (F,S)
302-250 Field Experience in Education 2 cr.
Direct field experience working with children in educational settings; bi-weekly campus classes and 20 hours direct observation, participation and interviews. Must be completed no later than first semester after admission to teacher certification. P: satisfactory caregiver background check required; contact Education Dept. for application. (F,S)

302-280 Instructional Technologies: Evaluation, Production and Application 3 cr.
This course examines computer and audio-visual materials designed, developed, and promoted for classroom use. Students will examine and use resources, explore professional literature and evaluate processes and products for future students. This course will meet the Wisconsin Department of Public Instruction P.L. 3 and 4 mandates. P: admittance to teacher education or major in EED or minor in SED; and concurrent in 302-361. (F,S)

302-300 Introduction to Education and Teaching 3 cr.
This course is required for teacher certification and should be taken before all other required methods classes. The technical skills of teaching, instructional planning, various teaching models, as well as factors causing change, and changes taking place in American education will be studied. P: admittance to teacher education or major in EED or minor in SED.

302-302 Teaching Social Studies in Elementary and Middle Schools 3 cr.
Concepts, processes, learning skills, teaching methods and resource materials related to the social sciences; questioning, classroom environment, content and topic selection, scope and sequence; forces influencing the social studies curriculum. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F,S)

302-303 Teaching Art in the Elementary and Middle Schools 3 cr.
Philosophy and psychology of art education, characteristics and stages of creative development in children and children’s art, selecting and motivating artistic experiences, developing lesson plans and units, organization of elementary art curriculum. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F,S)

302-304 Teaching Music in the Elementary and Middle Schools 3 cr.
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: admittance to teacher education or major in EED or minor in SED; and 302-361. (F,S)

302-306 Teaching Health, Physical Education in the Elementary, Middle Schools 3 cr.
Principles and methods of planning and conduct of health and physical education instruction for elementary and middle school classroom teachers. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F,S)

302-307 Teaching Reading in the Elementary and Middle Schools 3 cr.
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: admittance to teacher education or major in EED or minor in SED; and 302-361 and admittance to Harmony Program.

302-309 Teaching Language Arts in the Elementary and Middle Schools 3 cr.
Develops a language arts model, rationale, basic processes and skills and assessment procedures for the language arts classroom. P: admittance to teacher education or major in EED or minor in SED; and 302-361 and admittance to Harmony Program.

302-310 Teaching Communication Arts in the Middle and Secondary Schools 3 cr.
Theoretical and practical considerations in teaching communication arts. Development of a communication arts model, rationale, basic processes and skills, and assessment procedures for the communication arts classroom. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F)

302-311 Teaching Foreign Languages 3 cr.
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: admittance to teacher education or major in EED or minor in SED; and 302-361. (FO)

302-312 Teaching Social Studies in the Middle and Secondary Schools 3 cr.
Concepts, processes, learning skills, teaching methods and resource materials related to the social sciences; questioning, classroom environment, content and topic selection, scope and sequence; forces influencing the social studies curriculum. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F,S)

302-313 Teaching Mathematics in Middle and Secondary Schools 3 cr.
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: admittance to teacher education or major in EED or minor in SED; and 302-361. (F)

302-314 Teaching Science in Middle and Secondary Schools 3 cr.
The nature of middle and high school science curriculum, recent innovations in science teaching, classroom teaching techniques, and evaluation. P: admittance to teacher education or major in EED or minor in SED, and 302-361. (F)

302-315 Teaching English as a Second Language 3 cr.
Basic methods of teaching English as a second language and the underlying theories from linguistics, psychology, education and sociolinguistics; development and evaluation of lessons for the ESL classroom. P: admittance to teacher education or major in EED or minor in SED; and 302-361 and 242-165 or 242-168; one additional 300-level linguistics course. (F)

302-316 Teaching Art in the Middle and Secondary Schools 3 cr.
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: admittance to teacher education or major in EED or minor in SED; REC: 302-250 and 361. (SE)

302-317 Teaching Music in the Middle and Secondary Schools 3 cr.
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: admittance to teacher education or major in EED or minor in SED; REC: 302-361. (F)

302-319 Adolescent Literature in Middle and Secondary School Reading 3 cr.
Design and context of effective adolescent literature programs; analysis and evaluation of adolescent literature; current practices in literary curricula; adolescent literature and personal development; literature and social issues. P: jr. st. (SO)

302-322 Educational Psychology 3 cr.
Psychological processes involved in teaching, learning, and their interaction: motivation, individual differences, classroom management, cognition, group processes, and educational assessment. P: so st.; and 481-210 or 829-102; REC: 302-361 or an education course.
302-324 Teaching Mathematics in the Elementary and Middle Schools 3 cr.
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: admittance to teacher education major in EED or minor in SED; and 302-361 and 600-281 with at least a C grade and 600-282 with at least a C grade. (F,S)

302-325 Teaching Science in the Elementary and Middle Schools 3 cr.
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, interactions of science, technology and society; applications of computers in science education. P: admittance to teacher education major in EED or minor in SED; and 302-361, 362 and conc enr in 203. (F,S)

302-333 Observation and Assessment of Young Children 3 cr.
Overview of all levels of information-gathering in the developmental/evaluation of the young child. P: 481-331 and conc enr in 302-336. (S)

302-334 Teaching General Music in the Elementary and Middle Schools 3 cr.
Philosophical and theoretical foundations of music education. Children’s musical needs; curriculum development; traditional and contemporary methods and materials. P: admittance to teacher education major in EED or minor in SED; and 302-361 and 670-252. (SO)

302-336 Introduction to Experience with Young Children 1 cr.
Supervised series of four clinical rotations in early childhood group settings. P: 481-331 and conc enr in 302-333. (S)

302-340 Introduction to Learning Disabilities and Emotional Disturbance 3 cr.
This course will provide students with the history, definitions, etiology, methodology and programming options for students with learning and/or emotional disabilities. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor.

302-341 Normal and Abnormal Language Development 3 cr.
Introduction to communication and normal and abnormal language development in relationship to cognitive development. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor.

302-342 Teaching Methods for Diverse Learners 2 cr.
A study of instructional methods and materials for teaching diverse learners. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor. (FO)

302-343 Educational Assessment 2 cr.
This course will focus on the study of the principles, procedures, interpretation, and administration of formal and informal student assessment. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor. (FO)

302-344 Principles of Career and Vocational Education 1 cr.
This course will focus on the study of curricular and instructional approaches that contribute to the preparation for the world of work. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor. (FO)

302-345 The Exceptional Child in Regular Education 2 cr.
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: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor.

302-346 Collaborative Strategies for Working w/Colleagues, Parents, Community 2 cr.
This course will focus on the study of collaborative models and practices used within a variety of educational and relevant community settings and help students to develop the communications skills necessary to interact effectively with individuals in schools, agencies, and the community. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for adaptive education teaching minor.

302-347 Classroom and Behavior Management Strategies 2 cr.
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: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor.

302-348 Field Experience for Minor in Adaptive Education 1-3 cr.
This offering will be taken in conjunction with coursework for the minor in Adaptive Education. Students will be required to meet specific competencies as they work with students with learning and/or behavior disabilities. Repeatable to 2 cr. P: admittance to teacher education major in EED or minor in SED; and 302-361 and conc enr in all courses for minor. (F,S)

302-351 Field Project in School Settings 1 cr.
Thirty clock hours of direct experience with school children/youth in educational settings; focusing on specific educational projects identified by education faculty, school faculty, and other educators. Fulfills part of the 100-hour pre-student teaching clinical experience requirement. P: admittance to teacher education, and credit or conc enr in 302-303, 304, 310, 311, 312, 313, 314, 315, 316, 317, or 334. (F,S)

302-352 Social and Family Influences on Early Development and Learning 3 cr.
An ecological systems approach to understanding social and family influences that affect success or failure in the first years of school. Includes discussion of recent child development and education risk theories, research, and practitioner accounts. Survey of effective prevention and intervention programs for young children (preschool - 8 yrs.) and families "at-risk." P: 481-210 or 820-102; REC: 481-331 or 481-132 or 990-308; and 302-361. (F,S)

302-361 Introduction to the Art and Science of Teaching 8 cr.
The first integrated block provides students with a foundation for understanding the profession and the nature of teachers by combining 6 credits of on-campus coursework with 2 credits of directed-school-based experience. P: 302-250 and conc enr in 302-280 and admittance to teacher education major in EED or minor in SED. (F,S)

302-362 Integrating the Language Arts 12 cr.
This second block introduces the theories and practices in language arts, literature, communication arts, and reading combine to support reflecting on the past, examining the present, and imagining the future in the language arts classroom and across disciplines. P: 302-361. (F,S)

302-400 Perspectives on Education, Schools, and Society in the U.S. 3 cr.
The nature of schools; their role in society; schools as socializing institutions; role and responsibilities of educators, teachers and the law; the professional context of teaching; school reform; and other educational issues considered in the context of the history of education in America and in comparison to other countries. P: admittance to teacher education major in EED or minor in SED; and 302-361; REC: one education methods course. (F)

302-401 Student Teaching in the Middle School 5-12 cr.
Supervised student teaching in the middle school. Offered on a pass/no credit basis only. Additional special course fee required for students exercised options for extra administrative and travel costs. P: assignment by director of student teaching. (F,S)

302-402 Student Teaching in the Elementary School 2-12 cr.
Supervised student teaching in the elementary school. Offered on a pass/no credit basis only. P: assignment approved by director of student teaching. (F,S)
302-403 Student Teaching in the Secondary School 2-12 cr.
Supervised student teaching or internships in the secondary school. Offered on a pass/no credit basis only. P: assignment approved by director of student teaching. (F, S)

302-406 Evaluation and Testing in Education 2-3 cr.
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 or sr. (SO)

302-414 Seminar in Student Teaching/Internship 2 cr.
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. Class meetings will be four all-day sessions, either on Saturdays or during the week preceding the start of the University semester and the student teaching/internship experience in the classroom. P: conc enr in 302-401, conc enr in 402 or conc enr in 403. (F, S)

302-415 Counseling Role of the Classroom Teacher 3 cr.
Specific counseling and guidance skills necessary for guidance effectiveness of the classroom teacher and their implementation in the classroom. P: admission to teacher education or major in EED or minor in SED.

302-416 Workshop in Economics Education 1-3 cr.
Workshop is designed to provide information on selected current economic topics and concepts; enables educators to examine new print and non-print instructional materials and curriculum guides; and develop learning activities appropriate to their instructional responsibilities. Different topics are selected each year for focus. Topic will be identified by subtitle with each offering. May be repeated for credit. P: one of professional methods course and/or teaching experience and one social science course.

302-421 Literacy and Language Development in Young Children 3 cr.
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: 302-361 or 481-331. (F, S)

302-422 Reading in the Content Areas 3 cr.
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, developing study guides; dealing effectively with reading problems in the content areas. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F, S)

302-423 Communication and Thinking Skills Across the Curriculum 3 cr.
Contemporary practices for teaching communication and thinking skills will be addressed through theory, research, and simulations. One-on-one small group activities, continuing participation and student interaction will be stressed. P: admittance to teacher education or major in EED or minor in SED. (S)

302-441 History, Philosophy, and Current Programs in Early Childhood Education 3 cr.
The historical and philosophical bases of early childhood education, emphasizing current approaches and programs. Guided observations of young children. P: 491-331. (S)

302-442 Curriculum and Program Development in Early Childhood Education 3 cr.
Developmental approach to curriculum and program, including the study of effective interweaving of various disciplines in programs for young children; consider program priorities and planning in the context of developmental levels and the variety of populations to be served. P: 302-

333 and 302-336 and conc enr in 302-443, and TB test and criminal background check required. (F)

302-443 Teaching Kindergarten: The Integrated Curriculum 3 cr.
Development of variety of teaching strategies, assessment strategies and resources for appropriate integrated learning experiences for half-day and extended-day kindergarten programs. Emphasis on active learning, diversity of learners' needs and collaboration with other professionals and with parents. Field trips required. P: 302-333 and 302-336 and conc enr in 302-442; and TB test and criminal background check required. (F)

302-445 Working and Communicating With Families of Young Children 3 cr.
Students will learn to work with families from diverse backgrounds in non-judgmental partnerships, to communicate success fully using basic Hmong, Spanish, and sign, and develop knowledge of resources and referral networks for families. P: early childhood teaching minor.

302-452 Principles of Middle Level Education 3 cr.
This course provides students with an introductory understanding of the philosophy and organization of middle level education. Emphasis is directed toward programmatic considerations. P: admittance to teacher education or major in EED or minor in SED; and 302-361. (F, S)

303 Interdisciplinary Studies

303-334 History: Individual Topic 3 cr.
An opportunity to study a history topic of the student's individual interest and write a research paper. P: 352-105 and lower-level history course.

303-344 Bach: Mass in B Minor 1 cr.
Examines the general nature of baroque musical styles and Bach's techniques and enormous significance in musical history. P: none.

303-350 Wagner: Tristan and Isolde 1 cr.
Examines this work in terms of Wagner's revolutionary techniques and in relation to its major themes of eroticism, death and transcendence. P: none.

303-353 Music of Mahler: The Song of the Earth 1 cr.
Examines Mahler's "Symphony No. 9" and its "problems" in composition, considering musical terms such as "artefactual" means to create "mood," discuss musical meanings and relation of text to musical meanings. P: none.

303-357 Beethoven: The Ninth Symphony 1 cr.
Examines kinds of meanings, ideas, emotions expressed; look for truths perceived musically and in terms of human experience; historical events, Enlightenment concepts, Romantic attitudes providing insight into Symposium. P: none.

303-370 Practicum in Humanities 1-4 cr.
An individual contract is developed in consultation with a faculty member proficient in the subject matter and the director of the Extended Degree program. P: none.

303-380 Selected Topics in Humanities 1-4 cr.
An individual contract is developed in consultation with a faculty member proficient in the subject matter and the director of the Extended Degree program. P: none.

303-435 Great Ideas: Space, Time and Infinity 3 cr.
Explore history and development of current ideas of space and time from St. Augustine to modern physics. Includes concept of history as opposed to concept of recency, world changes through time as opposed to world remaining static. P: none.

303-436 Great Ideas: Reality and Morality 3 cr.
An examination of a selected number of great ideas which have shaped our vision of the universe, ourselves, and our society. Examines three different ideas of reality and of morality. The relationship among these different forms of the idea of reality and morality are examined. P: none.
325 Engineering

325-105 Engineering Graphics 3 cr.
Orthographic projection and its application to analyzing and solving three-dimensional problems involving points, lines, planes and solids; axonometric projections for pictorial representation with engineering and design applications using microcomputers. P: 600-101 or Math Placement of 600-104 or greater. (F, S)

325-201 Engineering Materials 4 cr.
Basic behavior and processing of engineering materials, including metals and alloys, ceramics, and plastics. P: 225-212. (F, S)

325-313 Mechanics I 3 cr.
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: 600-202. (F)

325-314 Mechanics II 3 cr.
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: 325-313. (S)

351 English

351-104 Introduction to Literature 3 cr.
The distinctive characteristics of poetry, plays, short stories and the novel, intended to help students understand, appreciate and enjoy literature ranging from the classical to the contemporary. P: none. H-3. (F, S)

351-206 Women in Literature 3 cr.
Surveys women as writers and as characters in literature; emphasizes the wisdom, experiences and insights of women writers and women in literature; concerned with literature from two or more cultures and comparison of the social and human values reflected in the literature of those cultures. P: none. H-3. (S)

351-212 Introduction to Creative Writing: Fiction 3 cr.
a first course in the writing, appreciation, understanding and technique of fiction. P: none. (F, S)

351-213 Introduction to Creative Writing: Poetry 3 cr.
a first course in the writing, appreciation, understanding and technique of poetry. P: none. (F, S)

351-214 Introduction to English Literature I 3 cr.
Chronological survey of English literature from Anglo-Saxon times to the end of the 18th century, including such writers as Chaucer, Shakespeare, Donne, Milton, Pope, and Swift. P: none. H-3. (F)

351-215 Introduction to English Literature II 3 cr.
Chronological survey of English literature from the 19th century to the present, including such writers as Wordsworth, Shelley, Keats, Byron, Tennyson, Shaw, Conrad, Eliot and Thomas. P: none. H-3. (S)

351-216 Introduction to American Literature I 3 cr.
Chronological survey of American literature from Bradford to Melville, including such writers as Melville, Twain, Crane, Melville, Cooper, Poe, Emerson and Thoreau. P: none. H-3. (F)

351-217 Introduction to American Literature II 3 cr.
From Whitman to the present, including such writers as Dickinson, Twain, James, Crane, Eliot, Porter, Fitzgerald, Hemingway, Faulkner, Cummings, Updike, Walker and Carver. P: none. H-3. (S)

351-301 Intermediate Creative Writing 3 cr.
Analysis of writing techniques in various genres including individual and group criticism of original student materials in workshop context. P: 351-212 or 213; and 351-105 or 352-225 or 352-228 or ACT English score of 32 or higher; and 9 cr of literature courses. (F)

351-302 Fiction Writing Workshop 3 cr.
Advanced practice in the writing of fiction, including group criticism of student work. Repeatable to 6 cr. P: 352-105 or 352-225 or 352-228 or ACT English score of 32 or higher; and 351-212; and 9 cr of literature courses. (F, S)

351-303 Poetry Writing Workshop 3 cr.
Advanced practice in the writing of poetry, including group criticism of student work. Repeatable to 6 cr. P: 352-105 or 352-225 or 352-228 or ACT English score of 32 or higher; and 351-213; and 9 cr of literature courses. (S)

351-304 Advanced Expository Writing 3 cr.
Study and practice of non-fiction writing of various kinds, including autobiography, argument, personal essay, formal essay; emphasizes developmental strategies, organization, tone and style. P: 352-105 or 352-225 or 352-228 ACT English score of 25 or higher or SAT Verbal score of 590 or higher; REC. 6 cr lower-level literature courses. (S)

351-315 The English Novel: 1700-1860 3 cr.
The development of the English novel from its beginnings to the mid-Victorian period; includes works by such authors Defoe, Sterne, Fielding, Smollett, Austen, Scott, the Brontes, Thackeray, Dickens and Eliot. P: jr st or 351-104 or 351-214 or 351-215. (F)

351-316 The English Novel: 1850 to the Present 3 cr.
The development of the English novel from Mid-Victorian to modern times; includes works by such authors as Dickens, Eliot, Trollope, Hardy, Wilde, Conrad, Joyce, Woolf, Lawrence, Bowen and Cary. P: jr st or 351-104 or 351-214 or 351-215. (S)

351-320 Major Drama 3 cr.
Study of one or more British, Irish or American dramatists and dramatic works. Repeatable to 6 cr. P: jr st or 351-104 or 351-214 or 351-215. (F, S)

351-322 Major Poetry 3 cr.
Significant non-dramatic poetry from England, Ireland, and/or America. Repeatable to 6 cr. P: jr st or 351-104 or 351-214 or 351-215. (S, O)

351-325 Approaches to Literature 3 cr.
Studies various ways of analyzing a literary work, including historical, psychological and post-structurist examinations of poems, plays, and fiction using different critical approaches. P: 352-105 or 352-225 or 352-228 or ACT English score of 32 or higher; and 9 cr of literature courses. (F)

351-331 Major American Prose Fiction 3 cr.
Study of American prose fiction including examples of novels, short stories and satire; includes works by such authors as Melville, Twain, Fitzgerald, Hemingway, Wright and Bellow. P: jr st or 351-104 or 351-214 or 351-215. (S)

351-333 Literary Themes 3 cr.
Explores a single theme such as fantasy, war, revolution, love or alienation through the literature of one or several nations. May be repeated for credit when a different theme is studied. P: jr st or 351-104 or 351-214 or 351-215. (S)

351-335 Literary Eras 3 cr.
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: jr st or 351-104 or 351-214 or 351-215. (F)

351-336 American Ethnic Literature 3 cr.
The study of literature which examines the experience of ethnic groups in America, such as African, Asian, Hispanic, and Jewish Americans, and American Indians. May be repeated for credit when content is different. P: jr st or 351-104 or 351-214 or 351-215. (F)

351-338 World Literatures 3 cr.
A study of selected works from world literatures. A variable content course. Repeatable to 6 cr. P: jr st or 351-104 or 351-214 or 351-215. (F)
351-431 Shakespeare 3 cr.
Study of a representative selection of Shakespeare’s plays, including comedies, tragedies and histories. P: Jr or 351-104 or 351-214 or 351-215. (S)

351-436 Major Author(s) 3 cr.
Study of one or more important writers in British, Irish, or American literature. Repeatable to 6 cr. P: Jr or 351-104 or 351-214 or 351-215. (SE)

352 Environmental Composition
352-100 College Writing 3 cr.
An introductory course in college writing, emphasizing writing as a process. Focuses on generating and organizing ideas, conducting library research, developing paragraphs, improving sentence structure, reviewing conventions of punctuation, grammar, spelling, and usage as needed. P: 912-093 or ACT English score of 17 or higher or SAT verbal score of 450 or higher. (F,S)

352-105 Expository Writing 3 cr.
College-level writing skills and principles of logical reasoning, effective organization and development of ideas. Emphasis on research skills and on academic reading and writing. P: 352-100 or 352-164 or ACT English score of 25 or higher or SAT verbal score of 590 or higher. (F,S)

352-111 Making the Most of College 1 cr.
An extended orientation course intended to help new students adjust to college quickly and get off to a good start academically. Provides structured opportunities to help students make new friends, form study groups, become familiar with the campus and its resources, get involved in campus activities, and improve academic and social skills. P: none. (F)

352-162 English as a Second Language: Reading and Expository Writing 1 cr.
Development of academic competence in reading, writing, listening, and speaking skills to enable non-native speakers of English to function successfully at the college level in an American university. P: ESL placement test. (F)

352-164 English as a Second Language: Expository Writing II 1 cr.
Development of academic competence in writing skills to enable non-native speakers of English to function successfully at the college level in an American university, focuses on English grammar, essay organization, academic writing style, prewriting, drafting, revising, editing, research paper techniques. P: 352-162 or ESL placement test. (S)

352-228 Writing About Education 3 cr.
A writing course designed to engage students in the issues raised by the field of education so that each student may continue to improve his or her writing ability and oral skills. May require concurrent enrollment in 302-250. P: 352-100 or 352-164 or ACT English score of 25 or higher or SAT verbal score of 590 or higher. (F,S)

352-305 Composition Practicum: Tutoring 1 cr.
Effective tutoring in composition requires both a working knowledge of composition theory and guided practice with students. This course will invite students to explore those theories and to reflect on their application as they work as tutors in the Writing Center. P: prior written cons of inst. (S)

362 Environmental Science
362-102 Introduction to Environmental Sciences 3 cr.
Etalizes 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. P: none. ES-1. (F,S)

362-141 Astronomy 3 cr.
See 754-141. ES-1. (F,S)

362-142 Exploration of the Universe 3 cr.
Economic, educational, social and cultural impact of space exploration and of our knowledge of the universe. Major periods in human history affecting our knowledge of the cosmos: impacts of various scientific developments such as the Copernican heliocentric model and Darwinian evolution. P: 362-141 or 754-103 or 754-201 or 754-141 or 225-211. NS-2. (S)

362-188 Issues in Biological Conservation 3 cr.
Current problems and controversies of nature conservation: scientific and political issues surrounding endangered species preservation, hunting and fishing, forest management, land use, animal rights, biotechnology and similar topics. P: 362-102 or 204-203. NS-2. (S)

362-190 Emergence of Western Technology 3 cr.
History of the shift in the technological balance of power from 16th century China, India and the Islamic world to Western Europe and later to North America. P: 754-103 or 754-141 or 362-102 or 362-141 or 225-108 or 225-211 or 296-202. NS-2. (F)

362-207 Laboratory Safety 1 cr.
See 475-207. (F)

362-260 Energy and Society 3 cr.
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. P: 362-102 or 754-103 or 225-211. NS-2. (F,S)

362-302 Principles of Ecology 4 cr.
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. Field trips required. P: 600-104 or Math Placement of 600-202 or greater; and 204-203. (F,S)

362-303 Conservation of Natural Resources 3 cr.
Principles of conservation: the nature and extent of our natural resources; exploitation and conservation of our resource system; natural chemical, physical and biological processes which affect and influence conservation and management practices; politics and economics of resource conservation. P: 362-102 or 204-203 or 296-202. NS-2. (F,S)

362-365 Environmental Systems 3 cr.
Physical and chemical aspects of natural environmental processes. The movement, transformation, and fate of materials and contaminants. P: 225-212 and 296-202 and 600-202 and 204-202. (F,S)

362-312 Mathematical Applications in Ecology 2 cr.
Appropriate mathematical techniques will be introduced and used to analyze applications in the field of ecology. Applications will include mathematical approaches to plant and animal dynamics, population genetics, community dynamics, and individual-based models. P: 600-104 and 362-302 or cons enr. (F)

362-318 Pollution Control 3 cr.
Government regulations, manufacturing processes, waste minimization, pollution prevention methods and pollution control techniques of major industries. Field trips required. P: 225-212. (F)

362-320 The Soil Environment 4 cr.
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. Field trips required. P: 225-108 or 212; REC: 286-202. (F)

362-325 Regional Climatology 3 cr.
See 416-322.
362-330 Hydrology 3 cr.
Qualitative study of the principal elements of the water cycle, including precipitation, runoff, infiltration, evaporation and ground water; applications to water resource projects such as low flow augmentation, flow regulation, irrigation, public and industrial water supply and flood control. P: 296-202. (F)

362-335 Water and Waste Water Treatment 3 cr.
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: 296-202 or 225-211 or 204-202. (SO)

362-342 Environmental Geology 3 cr.
Applications of fundamental geologic concepts in the interpretation of environmental problems resulting from the exploitation of crustal resources, Environmental impact of construction, mining, waste disposal, natural geologic hazards and the tapping of crustal energy sources. Field trips required. P: 296-202 (S)

362-350 Meteorology 3 cr.
Examines the composition and structure of the atmosphere; atmospheric thermodynamics, dynamics and kinematics of air motion and radiation in the atmosphere. P: 600-203. (SE)

362-353 Air Photo Interpretation 3 cr.
See 416-353.

362-363 Plants and Forest Pathology 3 cr.
Important diseases of forest, shade and orchard trees and diseases of representative economic plants; fungus deterioration in wood storage, its economic importance and methods of control. Field trips required. P: 204-203 or transfer course 204-003. (F)

362-390 Scientific Applications of Computing 3 cr.
Applications of computing to various areas of the natural sciences: statistical software, scientific graphics, equation solvers, spreadsheets, databases, image processing, project management and automated data acquisition. P: 690-200. (S)

362-392 Travel Course: Italy and Greece: Foundations of Western Science, Math and Culture 3 cr.
This program is an exploration of the foundations of western culture. It will be based in Athens, Rome, and Heracleion, Crete. Students will visit and reflect upon the historical sites where the foundations of western science, mathematics, political democracy and culture were built through the midwife services of the Minotaur civilization in Crete. P: consent of instructor and prior trip air and financial deposit. OC

362-405 Aquatic Ecology 3 cr.
An introduction to a diversity of freshwater systems, including streams, wetlands and reservoirs. The lab involves sampling of lakes and streams in eastern Wisconsin for biological and chemical analysis. Field trips required. P: 204-203 and 225-212 and 362-302. (F)

362-407 Modeling of Environmental Systems 4 cr.
Creation and analysis of deterministic and stochastic mathematical models describing material and energy flows in environmental systems. Measurements needed for parameter estimation and model validation. Ethics in modeling. P: 600-203 and 600-200 and 362-305. (S)

362-415 Solar and Alternate Energy Systems 3 cr.
See 734-415.

362-421 Soils and Geology of Wisconsin Field Trip 2 cr.
See 416-421.

362-432 Hydrogeology 3 cr.
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. Field trips required. C.L. 296-432, P: 296-202 and 362-330; REC: 600-202. (S)

362-434 Environmental Chemistry 3 cr.
The physical, chemical, and biological processes that affect the composition of air and water. Chemical reactions in polluted and unpolluted environments; dispersal processes, methods of control for various pollutants. C.L. 225-434. P: 225-311 with at least a C grade and 225-300 with at least a C grade; or 225-311 with at least a C grade; 225-302 with at least a C grade and 225-303 with at least a C grade. (F)

362-435 Environmental Chemistry Laboratory 1 cr.
Basic measurement techniques used by environmental scientists to evaluate air and water quality; field methods, continuous monitoring techniques, and in-laboratory analysis techniques. Experiments demonstrate reaction kinetics, stoichiometry, thermodynamics, instrumentation, and water chemical methods. C.L. 225-435. P: 225-434 or concurrent or 362-434 or concurrent. (F)

Large area, small scale analyses of earth surface features by satellite imagery and data. Manual and computer-assisted manipulation of multispectral images with respect to vegetation, geology, soils, water resources and land use. P: 296-202 or 416-250. (S)

362-460 Resource Management Strategy 3 cr.
Application of the principles of systems analysis to the sustainable use of material and energy resources. Emphasis on use of analytical tools of economics (e.g. costs-benefit, cost-effectiveness, and risk/benefit analysis) and the process of public policy making and implementation. P: 362-305; REC: background in economics and conservation. (S)

362-467 Ecological Methods and Analysis 4 cr.
Overview of current theory and practices of ecological sampling and analysis for terrestrial systems with field and laboratory experiences in these methods. Field trips required. P: 362-302 and 600-260. (S)

362-468 Ecological Applications 4 cr.
Application of ecological knowledge to the management of natural and human dominated environments, including consideration of agroecosystems, forest, wetland and riparian ecosystems. Attention given to ecology and management of harvestable species, endangered species, non-indigenous species and indigenous pest species. Introduction to the fields of ecotoxicology, ecological risk assessment and ecological economics as they relate to ecosystem management. Field trips required. P: 362-302 and 362-312 and 600-350-2. (F)

362-469 Conservation Biology 4 cr.
Overview of the major issues and ecological principles underlying the field of conservation biology, including patterns and measurement of biological diversity from genetic to community scales. Field trips required. P: 225-212 and 362-302 and 362-312. NS-2. (S)

362-492 Practicum in Environmental Science 1-4 cr.
A project-based course in which students address a practical application of scientific and mathematics skills in the environmental sciences. Topics vary. P: varies, but specified for each section of the course. (F, S)

397 French

397-101 Introduction to the French Language 1 cr.
Development of basic ability in understanding, reading, speaking and writing in French. P: none. (F)

397-102 Introduction to the French Language II 1 cr.
Development of basic ability in understanding, reading, speaking and writing in French. P: none. REC: 1 yr high school or 1 semester college French. (S)

397-201 Intermediate French Language I 3 cr.
Further development of the ability to understand, read and speak. French. P: none. REC: 2 yrs high school or 2 semesters college French. (F)

397-202 Intermediate French Language II 3 cr.
Further development of the ability to understand, read and speak. French. P: none. REC: 3 yrs high school or 3 semesters college French. OC. (S)
397-225 Intermediate French Conversation and Composition 3 cr.
Development of greater fluency through classroom practice in conversa-
tion and composition. P: none; REC: 4 yrs high school or 4 semesters
college French. OC: (F)

397-325 Advanced French Conversation and Composition 3 cr.
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 lan-
guage from colloquial to formal. P: 397-225. OC: (S)

397-329 Representative French Authors 3 cr.
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 lan-
guage. May be repeated for credit when different subtitle is studied. P:
397-225. OC: (S)

397-333 Literary Themes 3 cr.
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: 397-225. OC: (FO)

397-345 Advanced French Grammar and Translation 3 cr.
In-depth review and continued study of French grammar, including fun-
damentals of comparative English-French grammar, and basic principles
of translation from French into English and English into French. P: 397-
225. OC: (FO)

397-346 French Phonetics and Public Speaking 3 cr.
Intensive study of French sound system to improve accuracy of pronun-
ciation and intonation. Different accents studied. Intonation patterns need-
ed for different social situations practiced. P: 397-225. OC: (FE)

397-354 France Today 3 cr.
Aspects of French history and traditional customs and values of contempo-
rary French culture, including rural and urban life, industry and commerce,
art and music, etc. P: 397-225. OC: (FE)

397-355 Le Monde Francophone 3 cr.
A study of the French-speaking (Francophone) world outside of France.
Students will become familiar with important features of the geography,
history, and culture of francophone countries on five continents. P: 397-
225. OC: (SE)

397-366 Travel Course: Paris 2-3 cr.
See 493-366. OC

397-367 Business French 3 cr.
Students read and discuss business articles and correspondence, cultural
aspects of business communication. Areas include banking, correspondence,
import-export, computers. P: 397-225. OC: (SO)

404 Interdisciplinary Studies

404-317 Principles of Waste Management 3 cr.
Focus on waste generation and ways to minimize undesirable environ-
mental and societal impacts. Examine potential technologies to recover
useful products and energy, reduce waste volumes requiring ultimate dis-
posal. P: none.

404-355 Chemistry in the World 3 cr.
Focus on chemistry of modern issues: air pollution, atmospheric ozone,
global warming, energy utilization, water as a natural resource, acid rain,

404-370 Fructicum in Natural Sciences 1-4 cr.
An individual contract is developed in consultation with a faculty mem-
ber who is proficient in the subject matter of the topic and the director of
the Extended Degree program. P: none.

404-380 Selected Topics in Natural Sciences 1-4 cr.
An individual contract is developed in consultation with a faculty mem-
ber who is proficient in the subject matter of the topic and the director of
the Extended Degree program. P: none.

404-405 Genes and Biotechnology 3 cr.
Overview of genes, genome organization, replication, transcription, and
translation. Survey of the methods of laboratory manipulation of genes
and molecular cloning. Examination of various applications and issues of

416 Geography

See 951-102, 551-1.

416-202 Introduction to Cultural Geography 3 cr.
The impact of culture through time in creating the earth's contrasting
landscapes, using case studies which often focus on North America.
Field trips required. P: none. OC: (S)

416-222 Ocean of Air: Weather and Climate 3 cr.
Fundamental processes of the atmosphere, the result of weather and cli-
mate, and the effects of the atmosphere on other aspects of the earth's envi-

416-250 Displays of Geographic Information 3 cr.
The appreciation, use, and evaluation of maps and air photos as informa-
tional sources. P: none. (F)

416-320 Landscape Geography: Topics and Regions 3 cr.
Geographic methods of landscape description and analysis with applica-
tion to selected regions of the world. Field trips required. P: 296-202. (SO)

416-325 Regional Climatology 3 cr.
The elements, controls, and classification of climates; the distribution
of climate types over the earth; world patterns of climate. C: L: 362-325, P:
296-222 or 416-222; REC: 296-202. (S)

416-341 The City and Its Regional Context 3 cr.
See 951-341.

416-342 Settlement Geography 3 cr.
Evolution of major human settlement forms, emphasizing geographical
patterns in the United States and including relationships between house
form and culture, the arrangement of habitats on the landscape, and the
historical geography of urban settlements. Field trips required. P: jr st
and 416-202. SS: 2. (S)

416-350 Geographic Information Systems 3 cr.
See 835-350.

416-351 Elements of Cartography 3 cr.
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.
Field trips required. P: 551-201. (S)

416-355 Air Photo Interpretation 3 cr.
Techniques for the interpretation of human and natural land use. Ver-
tical, oblique, and infrared aerial photographs are used in analyzing a wide
variety of land use areas. C: L: 362-353. P: 551-201. (F)

416-370 Geography of South America 3 cr.
See 951-370, OC.

416-371 Geography of the United States and Canada 3 cr.
The physical features, resources, people, and economic activities of the
United States and Canada. P: 551-201. SS: 2. (F)

416-377 Analysis of Northern Lands 3 cr.
See 951-377.
416-421 Sells and Geology of Wisconsin Field Trip 2 cr.
Intensive three-day field study tour of the properties, origins and uses of
major soils and landscapes of Wisconsin, with follow-up discussions.
Cost of tour bus, guidebook, meals, and lodging borne by student. Field
trips required. C.L. 352-421. P. 296-202. (FO)

416-450 Advanced Geographic Information Systems 3 cr.
Project-based course using ARC/INFO software. Students adopt a study
area, develop data layers, analyze these data and develop GIS maps
showing results of the analysis. C.L. 835-450. P. 416-350 or 835-350. (S)

416-470 Quaternary Geology 3 cr.
Understanding the extremes in environmental behavior which character-
ize Pleistocene time. Principles of glaciology and the impact of glacia-
tion on the landscape. Field trips required. C.L. 296-470. P. 296-202;
REC: 296-203. (SE)

424 German

424-101 Introduction to the German Language I 4 cr.
Development of basic ability in understanding, reading, speaking and
writing in German. P: none. (F)

424-102 Introduction to the German Language II 4 cr.
Development of basic ability in understanding, reading, speaking and
writing in German. P: none. REC: 1 yr high school or 1 semester college
German. (S)

424-201 Intermediate German Language I 3 cr.
Further development of the ability to understand, read and speak German.
P: none. REC: 2 yrs high school or 2 semesters college German. (F)

424-202 Intermediate German Language II 3 cr.
Further development of the ability to understand, read and speak German.
P: none. REC: 3 yrs high school or 3 semesters college German. OC. (S)

424-225 Intermediate German Conversation and Composition 3 cr.
Development of greater fluency through classroom practice in conversa-
tion and composition. P: none; REC: 3 yrs high school or 4 semesters col-
gege German. OC. (F)

424-325 Advanced German Conversation and Composition 3 cr.
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 lan-
guage from colloquial to formal. P: 424-225. OC. (S)

424-329 Representative German Authors 3 cr.
Important novels, plays, poems, and essays representative of major eras
and movements of German society. Fosters 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 lan-
guage. May repeat for credit if different authors are studied. P: 424-225.
OC. (F)

424-333 Literary Themes 3 cr.
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: 424-225. OC. (SE)

424-335 Literary Eras 3 cr.
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: 424-225. OC. (SE)

424-345 Advanced German Grammar 3 cr.
This course will assist students in improving their overall language profi-
ciency by focusing on more challenging aspects of German syntax and
semantics. P: 424-225. OC. (FO)

424-350 Major German Drama 3 cr.
Study of German drama either by period or by theme. May be repeated for
credit when context is different. P: 424-225. OC. (SO)

424-351 Major German Prose Fiction 3 cr.
Study of German short story and/or novels either by period or by theme. P:
424-225. OC. (FE)

424-352 Major German Poetry 3 cr.
Study of German poetry either by period or by theme. P: 424-225. OC.
(SO)

424-355 Deutsche Kultur und Landeskunde 3 cr.
Expands students' linguistic and cultural proficiency in German through dis-
cussion of German history, politics and the arts. P: 424-225. OC. (SE)

424-356 German Culture 3 cr.
See 493-356. P: 424-225. OC. (S)

424-357 German Cinema 3 cr.
See 493-357. P: 424-225. OC. (S)

424-361 Travel Course: Germany 3 cr.
See 493-361. REC: 424-225. OC. (S)

424-420 Business German 3 cr.
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: 424-225. OC. (SE)

424-425 German Translation Studies 3 cr.
This course will introduce students to the theory and practice of translat-
ing both into and from modern German. Through readings in translation
theory and comparative linguistics as well as through group work, stu-
dents will become aware of the structures and nuances of both languages.
P: 424-225; REC: 424-545. OC. (SO)

424-485 Study Abroad: Germany 6-15 cr.
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 let-
ter grade. P: cons of adviser and prior arr with International Education
Office. OC. (F,S)

448 History

448-100 History of the Modern World 3 cr.
The history of the world during the past five centuries, and particularly
since 1900. Emphasizes the global nature of modern historical change,
with special attention to the interaction of Europe and North America
with the societies of Asia, Africa, and Latin America. P: none. SS-1. (F,S)

448-205 History of the United States from 1600 to 1865 3 cr.
Forces that shaped the political, social, cultural, intellectual and econom-
ic history of the United States through the Civil War. P: none. H-3. (F)

448-206 History of the United States from 1865 to the Present 3 cr.
Forces that shaped the political, social, cultural, intellectual and econom-
ic history of the United States since the Civil War. P: none. H-3. (S)

448-207 Roots of Black America 3 cr.
Survey of black people's experience in America, beginning with African
culture through the development of Afro-American culture and institu-
tions; includes political, social, economic and cultural history. P: none.
El.S. (F,S)

448-208 The Development of Modern Science in Western Society 3 cr.
Interrelationships between modern science and Western society and the
ways each has shaped the other; emphasizes the blossoming of modern
science in the 17th century, influence of science and technology in recent
times, development of major theoretical ideas in science. P: none. H-3. (F)

448-209 United States Immigration History 3 cr.
This course surveys American immigration history with a special focus
on ethnic and race relations. It emphasizes social issues relating to immi-
grant, immigration laws, and multiculturalism. P: none; REC: 448-205
and 206. El.S. (F)
448-250 Traditional Asian Civilization 3 cr.
History and civilization of traditional Asian societies, including China, Japan, India and the various peoples of Southeast Asia; focus on the evolution and structure of civilization before the increasing Western impact in the 19th century, emphasizing China and Japan. P: none. REC: jr st. (F)

448-275 The Vietnam War in Historical Perspective 3 cr.
See 875-275 SS 2.

448-301 The Middle Ages 3 cr.
Examines Western European history from the late Roman Empire to the Renaissance. Focuses on primary sources and the writings of medieval historians. P: 493-101 or 493-201. (FO)

448-302 Problems in American Thought 3 cr.
Selected themes and topics in the history of American thought and culture from the 17th century to the present. May be repeated for credit when different content is offered. Repeatable to 9 cr. P: jr st. (F)

448-306 Problems in European Thought 3 cr.
Selected themes and topics in the history of European thought and culture from the Renaissance to the present. May be repeated for credit when different content is offered. Repeatable to 9 cr. P: jr st. (SO)

448-309 History of Science in Modern Times 3 cr.
Development of science since the 16th century as part of its cultural context; discussion of important scientific concepts of the last four centuries. P: none; REC: jr st. (SE)

448-310 American Colonial History 3 cr.
Foundations of American institutions and attitudes: politics, economics, and social movements; evolution of values during the transition period between the pre-industrial and industrial society in America. P: none; REC: jr st. (SE)

448-311 History of Wisconsin 3 cr.
Wisconsin history from 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 regions, territories and state. P: none; REC: jr st. (S)

448-315 Rise and Fall of the Soviet Empire 3 cr.

448-316 Topics in Modern European History 3 cr.
This course will explore special regions or topics in European history since 1500. Sample topics might include the Russian Empire, the Balkans, the Reformation in Germany, etc. Repeatable to 9 cr. P: none; REC: jr st. (FE)

448-317 History of the Yucatan Maya 3 cr.
A survey of the Yucatan Maya from ancient times to the present using both primary and secondary sources to develop an understanding of historical analysis and perspective. P: none; REC: jr st.

448-322 Economic and Business History of the U.S. 3 cr.
Development of a corporate economy and the rise of government intervention; industrial, financial, agricultural and labor reorganizations; wage and price policies and their relationship to these general themes: modernization and urbanization and the relationship between the domestic and world economy. P: none; REC: jr st. (SO)

448-340 Topics in African American History 3 cr.
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. P: none; REC: jr st. (T.C.S. (F)

448-350 Social History of Europe 3 cr.
Development of social thought, institutions, organizations and policies from early to modern Europe; impact of economic change on society, formation of classes, consequences of European industrialization, and contemporary social issues, crises and conflicts. P: none; REC: jr st. (F)

448-352 History of Modern China 3 cr.

448-354 History of Modern Southeast Asia 3 cr.
Modern Southeast Asian history since 1800, including Vietnam, Indonesia, Thailand, Malaysia, Singapore, Cambodia, Laos and the Philippines. Emphasizes the enlarging of Southeast Asia and the impact of the West and the Southeast Asian response. P: none; REC: jr st. OC. (SE)

448-356 History of Africa 3 cr.
Social, political, economic and cultural development of Sub-Saharan African societies from prehistoric times to the present, emphasizing the period since 1800. P: none; REC: jr st. OC. (SE)

448-358 Aspects of Latin American History 3 cr.
This course takes a comparative historical perspective on political and social change in modern Latin America. The principal themes concentrate on the dynamics of, and tensions between, violent revolutionary episodes and peaceful democratic experiences in the twentieth century. P: none; REC: jr st. OC. (F)

448-360 Ancient Greece 3 cr.
This course traces the development of Ancient Greek civilization from its origins in the Ancient Near East until its conquest by Rome. Includes social, political, intellectual, economic, and cultural history. P: none; REC: 493-101. (FD)

448-361 Ancient Rome 3 cr.
This course traces the development of Roman civilization from its Etruscan origins through Late Antiquity. Includes social, political, intellectual, economic, and cultural history. P: none; REC: 493-101. (FD)

448-380 Women in the United States: Historical Perspectives 3 cr.
In this course our goal is a richer understanding of women's experiences in the past, ranging from pregnancy and single motherhood to women's struggles to win the right to vote. Through lectures, discussions and films we will explore a variety of women's lives, consider the ways in which women changed our historical perspectives and focus on how interpretations of the past influence our understanding of current social issues. P: none; REC: jr st and one course in U.S. history or U.S. literature or Women's Studies. (F)

448-401 The Transformation of American Schools 3 cr.
The history of American education, emphasizing public primary and secondary schools and twentieth century developments. P: jr st. (F)

448-402 Political and Social History of the Modern United States I 3 cr.
Traces the development of political and social institutions in the U.S. from 1900 through 1945, emphasizing the evolution of social problems and the responses of political institutions. P: none; REC: jr st. (SE)

448-403 Political and Social History of the Modern United States II 3 cr.
Traces the developments of political and social institutions in the U.S. from 1945 through 1995, emphasizing the evolution of social problems and the responses of political institutions. P: none; REC: jr st. (SO)

448-404 History of Modern Europe 3 cr.
Political and social change in 20th century Europe; origins and impact of World War I; emergence of communism and fascism; the road to World War II; postwar renaissance of the European community. P: none; REC: jr st. (FO)
448-405 History of Technological Change 3 cr.
Impact of major inventions on the patterns of life in modern society; ecological problems resulting from technological changes. P: none; REC. Jr. st. (SO)

448-460 Topics in Ancient History 3 cr.
Variable content. Course will explore a topic, issue, problem, or controversy in ancient history such as the ancient economy, Augustus or daily life in the Roman world. Emphasis on primary sources. Repeatable to 9 cr. P: none; REC. 493-101. (SO)

448-480 Seminar in History 3 cr.
Theoretical and practical topics and problems such as research techniques, source materials, comparative studies, analysis and interpretation, and the writing of historical inquiries. P: none; REC. Jr. st. (FS)

478 Human Biology

478-102 Introduction to Human Biology 3 cr.
Basic concepts, principles, and processes in human biology: the origin of life, evolution, cells, population, genetics, reproduction, disease, the anatomy and function of major organ systems in humans. P: none; HB-1. (FS)

478-204 Anatomy and Physiology 5 cr.
This lecture and laboratory course examines the fundamental structure and function of tissues, organs, and systems of the human body. P: 204-202 or transfer course 204-002. (S)

478-205 Biotechnology and Human Values 3 cr.
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: 478-102 or 204-202. NS-2, (FS)

478-206 Fertility, Reproduction, and Family Planning 3 cr.
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: 478-102 or 204-202. NS-2. (FS)

478-207 Laboratory Safety 1 cr.
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. C.L. 302-207. P: one college lab science course. (F)

478-217 Human Disease and Society 3 cr.
Impact of diseases in humans. Emphasizes the major diseases, their causes, individual effects, historical significance, and methods of control. P: 478-102 or 204-202 or 204-203. NS-2.

478-306 Microscopic Anatomy 2 cr.
A laboratory course dealing with the microscopic structure of cells, tissues, and organs composing vertebrate systems, with emphasis on the human. P: 204-203 or 478-204 or transfer course 204-002. (SO)

478-310 Human Genetics 3 cr.

478-313 Brain Functions in Human Behavior 3 cr.
Role of the nervous system as the basis of human behavior: evolution of nervous systems and behavior, human nervous system anatomy, neural bases for intellect, emotions, reflexes, conditioning and learning; development of the human nervous system and behavior; chemical, nutritional and stress effects. P: 478-102 or 204-202. NS-2. (S)

478-318 Mammalian Reproduction 3 cr.
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: 204-203 or transfer course 204-002. (F)

478-324 The Biology of Women 3 cr.
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: at least a C grade in 478-102 or 204-203 or 478-204. (S)

478-331 Science and Religion: Spirit of Inquiry 3 cr.
This course examines the differing world views of science and religion; origins of science in the Judeo-Christian West; sources of conﬂict; domains of validity; and of limitations of science and religion with special focus on explanations of human nature. P: at least a C grade in 478-102 or 204-202; and so st. NS-2. (F)

478-333 Principles of Sports Physiology 3 cr.
This course emphasizes the applied aspects of (exercise) physiology. Major topics include physiological dimensions of athletic performance/fatigue, principles of training, gender and exercise, ergogenic aids, and environmental stress and exercise. P: 478-102 or 204-202; REC. 478-339. (S)

478-342 Human Evolution 3 cr.
Phylogenetic history and affinities of Homo sapiens and the evidence on which they are based. C.L. 156-342. P: 478-102 or 204-202 or transfer course 204-002. (S)

478-350 Principles of Exercise Physiology 4 cr.
This course provides a physiological emphasis of the cardiorespiratory, muscular, and hormonal/metabolic responses to acute exercise and to chronic exercise training. The laboratory involves measurement and analysis of a variety of parameters related to physical exercise, e.g., blood pressure, EKG, oxygen consumption, and body composition. P: 478-204 or 204-203 or transfer course 204-002. (F)

478-351 Kinesiology 4 cr.
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: 600-104 or Math Placement 600-200 or greater; and 478-204 or 204-203 or transfer course 204-002. (F)

478-364 Human Variability 3 cr.
Study of living human populations, emphasizing their biological variability. Biological differences between subspecific populations from around the world, including populations living in stress environments, such as high altitudes, the Arctic, and deserts as examples. C.L. 156-364. P: 478-102 or 204-202. NS-2. (FS)

478-402 Human Physiology 3 cr.
Physiological functions of major human organs other than central nervous system: cell physiology, enzymes, cell energetics, muscle function; autonomic nervous system; endocrine system; blood, oxygen and circulatory system; immune system; kidney, digestion; and the role of physiology in diseases and medicine. P: at least a C grade in 478-204 or 204-203 or transfer course 204-002; and at least C grade in 225-108 or 225-212. (F)

478-403 Human Physiology Laboratory 2 cr.
This course provides students with laboratory experiences designed to help them appreciate and understand the physiology of the major systems of the human organism. Classic and contemporary experiments will be used to provide students with an appreciation for the scientific method as well as the importance of technology in science. C.L. 820-403. P: 204-203 or 478-204 or 820-308. (SE)
471-413 Neurophysiology 3 cr.
Physiological mechanisms in nervous system function: human neuroanatomy; neuron chemical and electrical functions; synaptic pharmacology; sensory receptors; effects of chemicals and toxins; neural information processing in sensory and motor systems; neural bases for learning and memory; medical implications. P: 204-203 with at least a C grade or transfer course 204-002 or 478-204 with at least a C grade; and at least a C grade in 225-108 or 225-212. (S)

478-422 Immunology 3 cr.
This course examines the mechanisms of vertebrate, particularly human defense against microbial invasion and cancer. P: at least a C grade in 204-302 or 204-307; and 225-212 with at least a C grade. (S)

478-423 Immunology Lab 1 cr.
This laboratory course examines the mechanisms of innate and acquired immunity. P: 478-422 or coreq enr. (S)

478-444 Endocrinology 3 cr.
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: 478-402 with at least a C grade; REC: 204-307. (F)

481 Human Development

481-210 Introduction to Human Development 3 cr.
Human development from conception through death: physical development, social and emotional development, personality development, the development of language, intellectual development and creativity, and the process of human learning. P: none. SS-1. (F,S)

481-340 Introductory Human Development Seminar 1 cr.
Information and competencies critical for the major is the focus of this course. It will provide an overview of the program, offer potential career directions to students, raise awareness of relevant resources and requirements, and help guide and engage a planning process. P: 481-210 or major in human development. (F,S)

481-331 Infancy and Early Childhood 3 cr.
Current theories, methods of study and research in the study of human development from conception through the early childhood years, and the interaction of these factors with biological, socio-cultural, and psychological aspects of development. P: 481-210 or 820-102. (F,S)

481-332 Middle Childhood and Adolescence 3 cr.
Individual development from the elementary school years through adolescence: socio-cultural, psychological and physical growth factors in the developmental process of the older child and adolescent. Stresses interpretation of behavior from the perspectives of such theorists as Erikson and Piaget. P: 481-210 or 820-102. REC: 481-331 or equiv. (F,S)

481-334 Play and Creative Activities in Childhood 3 cr.
Concepts of the contributions of play and creative activities to physical, intellectual, emotional and social aspects of development; specific contributions of selected creative activities. P: 481-331. (F)

481-336 Gender Across the Life Span 3 cr.
An introduction to the various contemporary approaches to the theory of counseling: a developmental approach to counseling children and adults across the life span; a consideration of values, ethics, and culture in the counseling process. P: upper-level human development or psychology course. (F,S)

481-440 Human Development Senior Seminar 1 cr.
The opportunity for human development majors to apply the theoretical, methodological, and personal knowledge and skills they have developed throughout their course of study. P: 481-340. (F,S)

493 Human Studies

493-101 Foundations of Western Culture 1 cr.
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. P: none. H-1. (F,S)

481-342 Cross Cultural Human Development 3 cr.
Cultural differences in perception, cognition, language and thought, child development, child rearing, and personality, relationships between various aspects of culture and psychological functioning within non-Western cultures and American ethnic subcultures. P: 481-210 or 820-102 or 156-100; REC: social science course. OC/SS-2. (F,S)

481-333 Adulthood and Aging 3 cr.
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: 481-210 or 820-102; REC: 481-331 and 332. (F,S)

481-344 Dying, Death, and Loss 3 cr.
Death, dying, and loss from a multidisciplinary diversity perspective; the development of death concepts across the life span, cross-cultural death practices and their relation to the American death system. P: 481-210 or 820-102. SS-2. (S)

481-345 Human Sexuality 3 cr.
This course is an introduction to the major psychological, biological and sociocultural models of human sexuality, with an emphasis on sexual identity development throughout childhood, adolescence, adulthood, and aging. P: 481-210 or 820-102; REC: 487-102. (S)

481-436 Culture, Development and Health 3 cr.
The course will focus on cultural groups in the U.S. providing a brief cultural history with an overview of the major religious worldviews before examining how development and approaches to health and well-being vary across cultures. P: 481-210 or 820-102. (F)

481-350 Developmental Psychology 3 cr.
New brains, young minds, and early behaviors will be explored using animal and human models. P: 481-210 or 820-102; and 487-102 or 204-202. (F,E)

481-340 Test and Measurements 3 cr.
See 820-420.

481-424 The Development of Creative and Critical Thinking 3 cr.
Explores the definitions and assessment of creative thinking across the life span and provides the opportunity to discuss controversial issues in the field and to practice techniques for facilitating thought. P: 481-210 or 820-102; and Jr or upper-level human development/psychology course. (S)

481-429 Theories of Personality 3 cr.
See 820-429.

481-435 Abnormal Behavior 3 cr.
See 820-335.

481-438 Counseling Across the Life Span 3 cr.
An introduction to the various contemporary approaches to the theory of counseling: a developmental approach to counseling children and adults across the life span; a consideration of values, ethics, and culture in the counseling process. P: upper-level human development or psychology course. (F,S)

481-440 Human Development Senior Seminar 1 cr.
The opportunity for human development majors to apply the theoretical, methodological, and personal knowledge and skills they have developed throughout their course of study. P: 481-340. (F,S)
493-371 American Indian Art and Artists 3 cr.
The art and painting of selected North American Indian cultures using comparative analyses of arts as expressions of differing value systems. Variable content: may be taken more than once. P: Jr sr; and 242-225 or 242-226 or 493-225 or 493-226. (F)

493-372 American Indian Mythology and Literature 3 cr.
A study of the cultural values of American Indian nations as reflected in their oral and written traditions. Myths, storytelling traditions, poetry, and novels will be explored. P: 242-226 or 493-226 or one literature course. (E) (S)

493-374 Wisconsin American Indian Ethnohistory 3 cr.
An in-depth examination of one American Indian nation now located in Wisconsin: Anishinabe (Ojibway), Ojibwa (Iroquois), Menominee, Potowatomi or Mohican. This course explores the culture and history of one of these nations. P: none. E (S)

493-376 Cultural Conflict in French Canada 3 cr.
Analyzes the conflict between the English and the French in Canada, one of many cases of conflicting cultural groups in the world today, focuses on the cultural dimensions of the problem and assesses its consequences, both creative and destructive. P: none; REC: Jr sr OC. (SO)

493-379 Ancient Mesoamerican Art, Architecture, and Culture 3 cr.
Pre-Columbian Olmec: Maya, Teotitlanca and Zapotec art in the context of social, political and ideological systems, disruption and discontinuity of traditional cultures; issues of historical reconstruction. C.L.: 242-379: P: 242-102 or 103 or 202 or 225 or 261 or 493-323. (SO)

493-391 American Indian Seminar 3 cr.
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 comenaborous issues, environmental justice, American Indian law, and repatriation. P: 342-225 or 493-225; and 342-226 or 493-226.

493-410 The Christian Heritage: Birth of Christ to 1600 3 cr.
This course will study the development of Christianity from the birth of Christ through the Reformation. It focuses on the growth of religious ideas in original writings and art. Through this, students will gain an understanding of the powerful ideas and conflicts that continue to shape our society. P: none; REC: Jr sr. (FE)

493-440 Perspectives on Human Values: The Contemporary World 3 cr.
A study of values shaping the contemporary world through reflection on historical, literary, philosophical, artistic, and other cultural products from the Second World War to the present. Capstone seminar for majors and minors in humanities studies. P: Sr or Sr 6 cr from any two Perspectives or Human Values courses. (P, S)

505 Interdisciplinary Studies
505-308 Professional Ethics and Problem Solving 3 cr.
Examines ethical theory and common approaches to both purely logical-based and open-type problems common to personal and professional activities and issues in order to improve logical and creative problem solving skills. P: 53 or more earned cr.

520 Information Sciences
520-201 Information, Computers and Society 3 cr.
Introduction to the concepts that underlie the primary areas of activity in information and computer science. Survey of issues concerning social impact, applications of technology, the Internet, information management, systems analysis, programming, communications and emerging technologies. P: none. (P, S)

520-210 Information Problems 3 cr.
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. P: none. (S)

520 Controlling Bibliographic Information 3 cr.
Introduction to libraries as information systems, including print and electronic information control and retrieval, systems of library classification, information search tools and on-line databases, reference materials, indexes, specialized collections and bibliographic networks. P: none; REC: 246-200. (FR)

520 Visual Information 3 cr.
Practices, problems, and technologies of presenting information visually. P: none. (F)

520 Information Technologies 3 cr.
Historical development, economics and current operations of telecommunications technology and its impact on society; programming telecommunications systems, interactive computer uses, changing media formats and delivery systems and applications in the communications environment of the future. C.L.: 246-308; P: 246-200 or 520-210. (S)

520 Expert Systems 3 cr.
Students will be introduced to the techniques used to create expert systems. Each student will learn to interview experts to discover techniques that they use to solve problems, then convert these techniques into rules to make an expert system. P: 266-242 and 257. (FE)

520 Advanced Information Problems 3 cr.
Practice in solving information problems and documenting skills for external audiences. P: 520-210 and Sr sr. (S)

520 Information, Media and Society 3 cr.
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. C.L.: 242-430. P: 246-102 or 246-200 or 520-210. (S)

520-440 Information and Computing Science Practicum 3 cr.
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 or Sr. (P, S)

600 Mathematics
600-101 Intermediate Algebra 3 cr.
Properties of the real numbers; solving linear and quadratic equations and inequalities; polynomials; fractional expressions and equations; exponents, powers and roots; systems of linear equations. Credit will not be granted for this course if it is taken after credit has been earned for 600-104 or 201 or 202 or 203 or 260 or 281 or 282 or a transfer course equivalent. P: 91-094 or Math Placement of 600-101 or greater. (P, S)

600-104 Elementary Functions: Algebra and Trigonometry 4 cr.
The real number system; inequalities; functions and their inverses; exponential and logarithmic functions; trigonometric and inverse trigonometric functions; complex numbers; polynomial and rational functions; systems of equations. Credit will not be granted for this course if it is taken after credit has been earned for 600-202 or 203 or a transfer equivalent. P: 600-101 or transfer course 600-004; or Math Placement of 600-104 or greater. (P, S)

600-201 Calculus for the Management and Social Sciences 3 cr.
Basic concepts and techniques of differential and integral calculus; Applications in the fields of accounting, economics, finance and management. Full credit is not given for both 600-201 and 600-202; students who enroll in 600-202 after receiving credit for 600-201 will receive one credit for 600-202; P: 600-101 or 600-104 or trig course 600-004; or WPMT AB score of 612 or higher or WPMT BC score of 609 or higher and 2 yrs high school algebra. (P, S)
**600-202 Calculus and Analytic Geometry I 4 cr.**
Differential and integral calculus of the elementary functions with associated analytic geometry, transcendental functions; techniques of integration; application; sequences and series. Full credit will not be granted for both 600-202 and 201. P: 600-104 or Math Placement of 600-202 or greater. (F,S)

**600-203 Calculus and Analytic Geometry II 4 cr.**
Differential and integral calculus of the elementary functions with associated analytic geometry; transcendental functions; techniques of integration; application; sequences and series. P: 600-202. (F,S)

**600-209 Multivariate Calculus 4 cr.**
Real-valued functions of several variables; tangent and normal lines; chain rule for partial derivatives; extremum; least squares method; higher-ordered derivatives; integration; polar and cylindrical coordinates; spherical coordinates; vector fields; line integrals; physical applications. P: 600-203. (F,S)

**600-260 Introductory Statistics 4 cr.**
Descriptive and inferential statistics; frequency distributions; graphical techniques; measure of central tendency and of dispersion; probability regression correlation, analysis of count data, analysis of variance. Credit will not be granted for both 600-260 and 216-215 or 255-205. P: 600-101 or Math Placement of 600-101/260 or greater. (F,S)

**600-281 Conceptual Foundations of Elementary Mathematics I 3 cr.**
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. P: 600-101 or Math Placement of 600-104 or greater. (F,S)

**600-282 Conceptual Foundations of Elementary Mathematics II 3 cr.**
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: 600-101 or Math Placement of 600-104 or greater. (F,S)

**600-305 Ordinary Differential Equations 3 cr.**
Solutions and applications of first and higher order linear differential equations; the meanings of existence and uniqueness theorems; nonlinear differential equations; modeling physical and biological systems. P: 600-203. (S)

**600-309 Systems of Ordinary Differential Equations 3 cr.**
Systems of linear, first-order differential equations, making use of matrix algebra with eigenvectors and eigenvalues, and numerical methods; applications; nonlinear differential equations. P: 600-305 and 320. (FO)

**600-320 Linear Algebra I 3 cr.**

**600-321 Linear Algebra II 3 cr.**

**600-333 Analysis I 4 cr.**
A course in the basic ideas of classical real analysis. Sets, functions, real numbers, limits, Euclidean space, topology of Euclidean space, continuity and uniform continuity, uniform convergence, and function spaces and their applications. P: 600-209. (F)

**600-334 Analysis II 4 cr.**
Differentiable mappings, the inverse and implicit function theorems and related topics, integration on Euclidean space, Fubini's theorem and the change of variables formula, and Fourier Analysis. P: 600-333. (S)

**600-338 Introduction to Algebraic Structures 3 cr.**
Groups, rings, and fields as organizing ideas. Basic structure theorems. Applications. P: 600-203 and 320. (F)

**600-350 Numerical Analysis 3 cr.**
Application of computer techniques in solving various mathematical and engineering related problems; solutions of systems of equations, interpolation, curve fitting, differentiation, integration and solutions of differential equations. C: L: 266-350. P: 600-203; and 266-241 or 600-320; REC: programming ability. (SO)

**600-355 Applied Mathematical Optimization 3 cr.**
Analytical and numerical optimization techniques; linear, nonlinear, integer, and dynamic programming. Techniques applied to problems of water, forest, air and solid waste management. P: 600-320 or conc enr. (FE)

**600-360 Theory of Probability 3 cr.**
Probability as a mathematical system, with applications; basic probability theory; combinatorial analysis; distribution functions and probability laws; mean and variance of a probability law; expectation related probability laws; random variables. P: 600-209. (FE)

**600-361 Mathematical Statistics 3 cr.**
Sample moments and their distributions; tests of hypotheses; point and interval estimation; regression and linear hypotheses; nonparametric methods; sequential methods. P: 600-320 and 360. (SO)

**600-364 Biometrics 4 cr.**
Emphasis on life science problems; analysis of variance techniques, linear regression, correlation analysis and nonparametric techniques; introduction to statistical computation. P: 600-260.

**600-385 Foundations of Geometry 3 cr.**
Intuitive and deductive introductions to Euclidean, affine, hyperbolic, spherical, elliptic and projective geometries. P: 600-202. (S)

**600-410 Complex Analysis 3 cr.**
Algebra and geometry of complex numbers; analytic functions, elementary transformations, integration, Taylor and Laurent series, contour integration, residues, conformal mapping. P: 600-209. (FE)

**600-416 Orthogonal Functions and Partial Differential Equations 3 cr.**
Fourier series, Fourier transform, orthogonal functions, Legendre and other polynomials, Bessel functions, characteristic functions and values; Green's functions; wave equation in one and more dimensions; D’Alembert's solution; Dirichlet problem; strings and membranes; heat flow; electricitiy flow. P: 600-209 and 305. (F)

**600-425 Dynamical Systems 3 cr.**
Fundamental concepts and techniques of discrete and continuous dynamical systems; asymptotic behavior; structural stability, elementary bifurcations, strange attractors, fractals, chaos. Applications to physical and biological systems. P: 600-209, 320 and 305 or conc enr. (SE)

**600-465 Business and Industrial Statistics 4 cr.**
Statistical methods commonly applied in business and industry: quality control, control charts and acceptance sampling; multiple regression, time series, smoothing and forecasting; index numbers. P: 600-260.

**600-467 Applied Regression Analysis 3 cr.**
Techniques for fitting linear regression models are developed and applied to data. Topics include simple linear regression, multivariate regression, curvilinear regression and lineartizable models. P: 600-260; REC: knowledge of MINITAB. (F)

**600-492 Special Topics in Mathematics 1-4 cr.**
This course brings together students and professors who have a mutual interest in some topic not otherwise available among the usual mathematics offerings. P: jr st.
606 Interdisciplinary Studies
606-166 Adult Learning Seminar 2 cr.
Orientation of students to campus systems and to adult learning. Concepts of personal development, communication skills, critical thinking, adult learning, time management, and personal learning styles are incorporated. P: none.

606-370 Practicum in Social Science 1-4 cr.
An individual contract developed in consultation with a faculty member who is proficient in the subject matter of the topic and the director of the Extended Degree program. P: none.

606-380 Selected Topics in Social Science 1-4 cr.
An individual contract developed in consultation with a faculty member who is proficient in the subject matter of the topic and the director of the Extended Degree program. P: none.

606-478 Senior Distinction in the Major 3 cr.
A senior distinction project in the major must be a complete and distinct from any senior honors project for summa cum laude all university honors.

606-484 Senior Honors Project 3 cr.
A senior honors project (separate and distinct from the senior distinction in the major) must be completed (to earn the summa cum laude all university honors distinction). To be eligible to earn the summa cum laude distinction a student must earn a cumulative GPA of 3.75 or higher, successfully complete a senior honors project (606-484) and must have earned 60 credits. P: none.

644 Military Science
644-211 Leadership and Military Science I 1 cr.
An introductory course designed to orient the student to the ROTC program and to familiarize the student with the fundamentals of various military skills. P: none. (F)

644-212 Leadership and Military Science II 1 cr.
An orientation of the army and its career opportunities. Introduction of the student to military leadership and military organizations. P: none. (S)

644-221 Basic Leadership and Management I 2 cr.
Introduction to basic leadership skills to include group dynamics, decision making and communications. Familiarize student with various military skills to include map reading, first aid and physical training. P: 644-211 and 212. (F)

644-222 Basic Leadership and Management II 2 cr.
Introduce student to individual and small unit tactics, basic map reading, and drill and ceremonies. P: 644-211 and 212. (S)

644-224 Military Science Leadership Practicum 6 cr.
Comprehensive six-week summer field training environment designed to be taken in lieu of 644-211, 212, 221 and 222, for students unable to complete these courses but that desire entry into advanced program. P: none.

644-431 Advanced Leadership and Management I 3 cr.
Objective is to present principles and techniques of leadership and management as they apply to the military, and to prepare student for advanced ROTC camp. Field trips required. P: 644-211, 212, 221 and 222; or equiv military experience. (F)

644-432 Advanced Leadership and Management II 3 cr.
Stress the leadership role in directing and coordinating individual and military team efforts and the tactical employment of small units. Field trips required. P: 644-211, 212, 221 and 222; or equiv military experience. (S)

644-441 Applied Leadership and Management I 3 cr.
Introduce the duties of the staff, emphasizing staff estimates and reports, military intelligence, and staff planning. Introduction and study of ethics and the military profession. Field trips required. P: 644-431 and 432. (F)

644-442 Applied Leadership and Management II 3 cr.
Introduce student to military law and administration. Continue the study of organization leadership. Introduce students to military protocol, Field trips required. P: 644-431 and 432. (S)

670 Music
670-115 Ear Training and Sight Singing I 1 cr.
Concentrated drill in all aspects of musicianship. Emphasis on sight singing and aural perception in intervals, melodies, chords and rhythms. P: conc enr in 670-151. (F)

670-116 Ear Training and Sight Singing II 1 cr.
Concentrated drill in all aspects of musicianship. Emphasis on sight singing and aural perception in intervals, melodies, chords and rhythms. P: 670-115 and 152 or conc enr. (S)

670-151 Materials and Values in Music I 3 cr.
The materials of which Western music is made are viewed not only in structural terms, but also in psychological, aesthetic and social perspective. P: conc enr in 670-115 and music theory placement exam; conc enr in 672-011. Conc enr in 012 or conc enr in 013. (F)

670-152 Materials and Values in Music II 3 cr.
The materials of which Western music is made are viewed not only in structural terms, but also in psychological, aesthetic and social perspective. P: 670-151. (S)

670-242 Jazz and Pop Literature 2 cr.
Open to singers or instrumentalists. Students memorize and perform standards in jazz and jazz literature. P: 30 cr. FA. (SO)

670-251 Literature and Styles in Music I 4 cr.
Musical literature and style from antiquity to the 18th century. Views music and musical attitudes in the perspective of other arts and in relation to their social and cultural milieu; development of related ear training, sight singing and some "composing" in period styles. P: 670-152. (F)

670-252 Literature and Styles in Music II 4 cr.
Musical literature and style from antiquity to the 18th century. Views music and musical attitudes in the perspective of other arts and in relation to their social and cultural milieu; development of related ear training, sight singing and some "composing" in period styles. P: 670-251. (S)

670-301 Applied Music Pedagogy 1 cr.
Individual observation of private applied lessons given by UW-Green Bay faculty instructors; teaching one lower-level noncredit student in the Extension/Outreach program, or one student from the String Techniques class, with periodic observation. P: applied music through 200 level.

670-303 Vocal Pedagogy 2 cr.
This course will provide: 1) a basic method of teaching and vocal production, 2) a detailed explanation of the techniques and principles of singing, and 3) a guide for the effective teaching of applied voice for the inexperienced teacher. P: jr st and 672-206. (FO)

670-308 Diction for Singers 1 2 cr.
Introduction to the International Phonetic Alphabet and a specialized approach to diction study for American English and French. P: none. (FE)

670-309 Diction for Singers II 2 cr.
Specialized approach to diction study of Italian and German using the International Phonetic Alphabet. P: 670-305. (SO)

670-311 Jazz Improvisation 2 cr.
Development of skills in musical improvisation: notation and function of chords, chord symbols, scales and rhythms; selected record listening and playing sessions. P: 670-252. (SE)

670-315 Choral Arranging 2 cr.
Arranging, adapting and creating scores for small and large vocal ensembles; includes an original composition for soprano-alto-tenor-bass (SATB) to be performed by the Concert Choir. P: 670-252. (SO)
670-316 Instrumental Arranging 3 cr.
Arranging, adapting and creating scores for small wind ensembles and full band; includes an original composition to be performed by the Concert Band. P: 670-252. (S)

670-318 Choral Literature 2 cr.
Large choral masterpieces from the Renaissance to the present: musical styles, interpretative practices and performance problems inherent in extended choral works and the vocal and instrumental resources necessary to their performance. P: 670-152. (FE)

670-333 Basic Conducting 2 cr.
Detailed study of conducting techniques: practical application to choral and instrumental ensembles. P: 670-152. (F)

670-341 Woodwind Techniques 2 cr.
Experience in the performance, pedagogy and critical evaluation of woodwind instruments, including flute, oboe, bassoon, clarinet, and saxophone. P: none; REC: jr st. (SD)

670-342 Brass Techniques 2 cr.
Experience in the performance, pedagogy and critical evaluation of brass instruments, including trumpet, French horn, trombone, baritone, and tuba. P: none; REC: jr st. (FD)

670-343 String Techniques 2 cr.
Experience in the performance, pedagogy and critical evaluation of string instruments, including violin, viola, violoncello and string bass. P: none; REC: jr st. (FD)

670-344 Choral Conducting and Rehearsal Techniques 3 cr.
Advanced study of conducting and rehearsal techniques for school vocal ensembles, including principles, techniques and methods of choral tone, diction and score study. P: 670-333. REC: jr st. (S)

670-345 Percussion Techniques 2 cr.
Experience in the performance, pedagogy and critical evaluation of percussion instruments, including snare drum, tympani and accessories. P: none; REC: core enroll in applied instrumental lessons. (SE)

670-346 Keyboard Accompanying 1 cr.
Techniques of accompanying the vocal soloist and the choral ensemble at the piano, including laboratory experience in various types of accompaniment. P: audition or 672-042. (F)

670-347 Keyboard Accompanying II 1 cr.
Techniques of accompanying the vocal soloist and the choral ensemble at the piano, including laboratory experience in various types of accompaniment. P: 670-346. (S)

670-348 Instrumental Conducting and Rehearsal Techniques 3 cr.
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: 670-333; REC: 670-341 or 342 or 343 or 345. (S)

670-351 Literature and Styles in Music III 4 cr.
Historical and theoretical examination of musical literature and style in the 19th and 20th centuries. Views music and musical attitudes in the perspective of other arts and in relation to their social and cultural milieu; development of related ear training and sight singing. Some "composing" in the Romantic style in III and 20th century styles in IV. P: 670-252. (F)

670-352 Literature and Styles in Music IV 4 cr.
Historical and theoretical examination of musical literature and style in the 19th and 20th centuries. Views music and musical attitudes in the perspective of other arts and in relation to their social and cultural milieu; development of related ear training and sight singing. Some "composing" in the Romantic style in III and 20th century styles in IV. P: 670-351. (S)

670-411 Composition 3 cr.
Exercises and original compositions in media from solo to quintet, in forms from binary to sonata, etc., depending on the needs of the individual students. Repeatable to 6 cr. P: 670-352. (F)

670-417 Jazz Arranging 2 cr.
Acquaints students with the knowledge necessary to write an artistic jazz arrangement. P: none; REC: 670-252. (F)

670-423 Seminar in Music Literature 3 cr.
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. Repeatable to 6 cr. P: 670-252. (S)

670-431 Jazz Ensemble Techniques 3 cr.
Procedures for rehearsing and teaching the jazz ensemble: daily playing experience in a jazz ensemble, writing and arrangement; studies in jazz theory, arranging, improvisation, piano, bass, guitar, drums, trumpet, trombone and saxophone. P: none; REC: jr st.

672 Applied Music

672-101-440 Class and Private Instruction in Instruments and Voice 1, 2 or 3 cr.
Study of the solo literature of music through class or private instruction. Placement by audition. Instruction in piano, organ, voice, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, baritone, tuba, percussion, guitar, and string bass. Special enrollment restrictions apply. All 100- and 200-level 672 courses are PA.

672-011, 012, 013 Keyboard Musicianship I 1 cr.

672-021, 022 Keyboard Musicianship II 1 cr.

672-031, 032 Keyboard Musicianship III 1 cr.

672-041, 042 Keyboard Musicianship IV 1 cr.

672-045 Elementary Voice I 1 cr.

672-069 Elementary Guitar I 1 cr.

672-124, 142 Jazz Combo I cr.

672-143, 144 Jazz Ensemble I cr.

672-144, 144 Woodwind Ensemble (variable) 1 cr.

672-145, 145 Brass Ensemble I cr.

672-146, 146 Percussion Ensemble I cr.

672-150, 350 New Music Ensemble I cr.

672-154, 354 Guitar Ensemble I cr.

672-163, 363 Vocal Ensemble I cr.

672-165, 365 Vocal Jazz Ensemble I cr.

672-166, 366 Opera/Music Theatre Workshop I cr.

672-241, 441 Concert Band (Wind Ensemble, Symphonic Band) I cr.

672-251, 461 Concert Choir I cr.

672-252, 462 University Chorus I cr.

672-449 Advanced Accompanying I cr.

689 Nursing (Campus Track)

689-317 Advanced Health Assessment 4 cr.
This course emphasizes essential nursing skills in the assessment process, introducing health history and physical examination techniques across the life span. P: R.N. license. (FS)

689-341 Theoretical Foundations 4 cr.
This course analyzes historical, legal, cultural, economic and social factors that influence nursing health care delivery. Nursing theories are presented. P: R.N. license. (FS)

689-434 Introduction to Nursing Research 3 cr.
This course emphasizes the role of the nurse as researcher and research consumer, focusing on both qualitative and quantitative research. P: cr or core in statistics. (P)
689-437 Nursing Management 4 cr.
This course examines the nurse as leader and manager in a variety of contexts and settings. Theories, processes, and behaviors of leadership and management are explored. P: 689-325. (S)

689-444 Community Health Nursing 3 cr.
This course covers community health nursing principles and roles. Examines institutions involved in promoting and maintaining health of populations. Special distance education fee is required. P: 689-317, 341, 434 and 437. (F,S)

689-445 Community Health Nursing Clinical 3 cr.
Community Health Nursing Clinical 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: 689-317, 341, 454 and 437. (F,S)

689-451 Synthesis for Nursing Practice 3 cr.
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 role is emphasized. Two hrs clinical lab and one group clinical conference per week. P: 689-444 and 689-445. (F,S)

689-490 Special Topics in Nursing 2-3 cr.
This course examines the role of the nurse as provider of care and advocate for older adults. Health promoting and health sustaining behaviors relative to older individuals are examined. P: enrollment in Collaborative Nursing program.

690 Nursing (Collaborative Track)

690-317 Health Assessment 4 cr.
This course emphasizes essential nursing skills in the assessment process, introducing health history and physical examination techniques across the life span. Additional course fee required. P: R.N. license and 1 yr experience. (F,S)

690-341 Theoretical Foundations 4 cr.
This course analyzes historical, legal, cultural, economic and social factors that influence nursing health care delivery. Nursing theories are presented. Additional course fee required. P: R.N. license and 1 yr experience. (F,S)

690-434 Nursing Research 3 cr.
This course emphasizes the role of the nurse as researcher and research consumer, focusing on both qualitative and quantitative research. Additional course fee required. P: R.N. license and 1 yr experience. (F,S)

690-437 Management and Leadership 4 cr.
This course examines the nurse as leader and manager in a variety of contexts and settings. Factors which promote or hinder the development of nursing leadership skills are explored. Management, leadership, organization, and change theories are presented as frameworks for the professional nurse’s role as manager of care for aggregates. Skills in critical thinking, communication, collaboration, and self-evaluation are emphasized as keys to successful nursing management in health care settings which utilize a variety of health care delivery systems. Additional course fee required. P: R.N. license and 1 yr experience.

690-444 Community Health Nursing 3 cr.
This course covers community health nursing principles and roles. Examines institutions involved in promoting and maintaining health of populations. Additional course fee required. P: R.N. license and 1 yr experience.

690-445 Community Health Nursing Clinical 3 cr.
Community Health Nursing Clinical 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. Additional course fee required. P: 690-444. (F,S)

690-451 Synthesis for Nursing Practice 3 cr.
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 role is emphasized. Two hrs clinical lab and one group clinical conference per week. Additional course fee required. P: 690-317, 341, 434, 437, 444, 445 and 446. (F,S)

690-492 Special Topics in Nursing 2-3 cr.
This course examines the role of the nurse as provider of care and advocate for older adults. Health promoting and health sustaining behaviors relative to older individuals are examined. Additional course fee required. P: enrollment in Collaborative Nursing program. (F)

694 Nutritional Science/Dietetics

694-142 Food and Nutritional Health 3 cr.
A basic course in nutrition with an emphasis on the application of nutrition concepts to personal everyday life. Covers the roles of nutrients (calories, carbohydrates, fats, protein, vitamins and minerals) in promoting health and wellness. Evaluates a healthy diet and lifestyle. P: 478-102 or 204-202. NS-2. (F,S)

694-201 Dietetics and Related Professions 1 cr.
An overview of the educational, credentialing and practice opportunities for dietetic and related professions. Explore career options for graduates, examine current trends that impact future job market. P: none. (F)

694-212 Science of Food Preparation 4 cr.
Studies the chemical, physical and microbiological characteristics of food and manipulation of these factors to meet quality standards. Lab activities demonstrate principles of food science as applied to food preparation, sanitation and safety. P: 1 yr high school chemistry or 225-108. (F)

694-250 World Food and Population Issues 3 cr.
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. P: 204-202 or 478-102. OC/NS-2. (F,S)

694-300 Human Nutrition 3 cr.
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: 204-202 and 225-102 or 225-108. NS-2. (F,S)

694-302 Nutrition and Culture 3 cr.
The effects of environment and culture and food habits in historical perspective. Role of food in health and disease as related to humans and the biosphere. P: 204-202 or 478-102. OC/NS-2. (S)

694-312 Quantity Food Production and Service 4 cr.
Principles of quantity food preparation, service, and budgeting in food service systems. Projects, laboratory, and field trips offered pertinent practical experiences. Field trips required. P: 694-212. (S)

694-327 Nutritional Biochemistry 4 cr.
A lecture/laboratory course of applied organic chemistry and biochemistry with an emphasis on human nutrition and disease. Examines structure and function relationships and reactions of molecules, metabolic regulation and the roles of nutrients in normal and abnormal metabolism. P: 225-212 or 225-108 with at least a C grade; and 204-202 with at least a C grade. (F)

694-359 Life Cycle Nutrition 3 cr.
Covers nutrient needs and physiologic changes relevant to stages of the life cycle. Also examines psychosocial and environmental conditions that impact on nutritional status in each stage. P: 694-303. (S)

694-402 Management in Dietetic Practice 3 cr.
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: 694-312 or conv enr. (S)
710 Organizational Administration

710-420 Project Management I 3 cr.
Addresses methods for initiating project of various size and complexity. Develops management techniques and basics to develop, plan, implement, and complete a project. Software exercises, case studies, experiential exercises, and application. P: none.

710-422 Project Management II 3 cr.
Integration of a project - the process required to ensure that the various elements of a project are successfully integrated. Project planning, execution, and change. Topics include scope management, time management, proposal development and others. P: none; REC: 710-420. (S)

710-440 Management of Human Resources 3 cr.
Job analysis, recruitment, selection, development, compensation, retention, evaluation, and promotion of personnel within an organization. Also deals with labor relations and laws related to EEO and their implications for HRM. P: none.

710-475 New Management Paradigms 3 cr.
Study the theoretical and philosophical foundations of new management paradigms and develop practical techniques for applying knowledge of continuous improvement process. P: Project Management Certificate Program. (FE)

736 Philosophy

736-101 Introduction to Philosophy 3 cr.
Basic ideas and problems of philosophy: various disciplines and schools of philosophy; important philosophical issues and their relevance to the present. P: none. H-3. (F, S)

736-102 Problems in Ethics 3 cr.
Ethical problems which are significant to an individual in the contemporary world, including traditional issues and current issues in such areas as law, medicine, public policy, business and education. P: none. H-3. (F, S)

736-105 Introduction to Social and Political Philosophy 3 cr.
Basic concepts in social and political theory, including the ideas of natural law and right, social and political justice, duty, obligation and freedom. P: none. H-3. (S)

736-111 Elementary Logic 3 cr.
Recognizing and judging the validity of various types of reasoning, especially those which are employed in non-technical contexts P: none. (F)

736-208 Science and Human Values 3 cr.
Implications of the social and natural sciences for human values; study of the history of the distinction between fact and value in segments of human life such as politics, law and medical technology. P: none. H-3. (F)

736-210 Civilization and Culture 3 cr.
Investigation of the value of being human and of belonging to cultures, by raising such questions as: What is the relation between being civilized and being human? Is it necessary to belong to a culture in order to be human? Do some cultures promote human development while others obstruct it? P: none. (F, S)

736-211 Philosophy of Art 3 cr.
The nature and meaning of the various fine arts such as painting, literature, music and film, and their significance for human existence; the nature of the work of art and the creative activity of the artist. P: none. H-3. (S)

736-212 Philosophy of Science 3 cr.
The classical positions and current controversies on the philosophy of science. P: none. H-3. (S)

736-213 Ancient Philosophy 3 cr.
The origins and early development of Western philosophy in the context of Classical Greek culture. Introduction to the thought of Plato, Aristotle, and selected pre-modern thinkers; clarification of enduring issues in Western philosophical tradition. P: none; REC: 736-101 or 102. H-3. (F)

736-214 Modern Philosophy 3 cr.
Major thinkers and movements representative of philosophical thought from the 17th century to the present. P: none; REC: 736-213. H-3. (S)

736-301 Applied Theoretical Ethics 3 cr.
A variety of important ethical theories are studied comparatively, and critically evaluated in application to a contemporary moral issue. P: none; REC: jr st and one philosophy course. (SE)

736-305 Epistemology: The Problem of Knowledge 3 cr.

736-309 Religion and Medieval Philosophy 3 cr.
An examination of philosophical questions and issues central to religion, coupled with a study of the approaches and answers developed in medieval philosophy. P: none; REC: 736-213 and 736-214. (SO)

736-322 Aesthetics 3 cr.
Survey of the main philosophical theories of art and beauty in Western culture; development of a critical understanding and appreciation of the nature and purpose of art. P: none; REC: philosophy course. (FE)

736-323 Nineteenth Century Philosophy 3 cr.

736-324 Contemporary Philosophy 3 cr.
Current intellectual movements in Europe and America, such as phenomenology, existentialism, analytic philosophy, intuitionism, pragmatism, and Marxism. P: none. (SO)

736-326 Philosophy, Politics and Law 3 cr.
The nature of politics and law and their interrelations; general legal theory, legal rights, judicial reasoning; the problems of justice, property and morality law. P: none; REC: philosophy course. (FE)

736-403 Major Philosophical Figures and Issues 3 cr.
In depth study of selected major philosophical figures and issues in the history of Western thought. Repeatable to 15 cr. P: upper-level course in philosophy. (FE)

736-406 Philosophical Problems in Cognitive Science 3 cr.
An examination of the status and philosophical status of the cognitive psychology which has developed since the 1970s, and of cognitive science as its context. P: none; REC: two philosophy courses. (PO)
742 Physical Education

742-101 Swimming I 1 cr.
Fundamental swimming, basic water survival skills, and safety for students with minimum swimming ability. American Red Cross certification available. P: none. (S)

742-116 First Aid and Emergency Care Procedures 3 cr.
Student will learn all aspects of first aid training such as victim assessment and treating all types of illnesses and injuries; all skills for Professional Rescuer CPR; dealing with infectious diseases and their transmission. Additional course fee required. P: none. (F,S)

742-121 Personal Conditioning 1 cr.
Principles of exercise physiology as they relate to muscular and organic stress from participation in calisthenics and exercise with light apparatus. Develops conditioning programs appropriate for life-long fitness. P: none. (F,S)

742-122 Training with Weights 1 cr.
Heavy resistance training and its effects upon the musculature; basic principles of the several styles of training with weights. P: none. (F,S)

742-124 Conditioning Through Running 1 cr.
Designed for the individual who prefers a program of vigorous exercise to one of primary recreational nature. Emphasizes cardiovascular benefits of running and the practical application of various types of running to improve physical fitness. P: none. (F,S)

742-145 Golf I 1 cr.
The fundamental skills of grip, stance and stroking with irons and woods; history, equipment, rules, etiquette, safety, and strategy necessary for responsible play. P: none. (F)

742-148 Karate I 1 cr.
Basic techniques of striking and kicking and their defenses as used in karate; the history, philosophy and traditions of karate. P: none. (F,S)

742-154 Tennis I 1 cr.
Basic skills and techniques in tennis: forehand, backhand, flat serve, volley, lob, smash, footwork, singles and doubles positioning and strategy, regular and no-ad scoring, U.S.T.A. rules, care and selection of equipment. P: none. (F,S)

742-159 Racquetball I 1 cr.
Basic skills and understanding of racquetball as a competitive recreational activity. Service, service returns, and rallying skills, history, rules and courtesy, equipment, and common strategies. P: none. (F,S)

742-197 Cross Country Skiing I 1 cr.
Combines skiing, skating and hiking for exercise and aesthetic experience in the winter environment. Includes care and selection of equipment, skiing techniques, winter survival and safety and day touring. Field trips required. P: none.

742-201 Swimming II 1 cr.
Emphasizes improvement of basic swimming techniques. Satisfactory completion enables students to enroll in subsequent aquatic courses. American Red Cross certification available. P: 742-101. (S)

742-205 Water Safety Instruction 2 cr.
Trains instructors to conduct swimming programs sponsored by the American Red Cross. Swimming skills are perfected so instructors serve as good models and gain student confidence. Includes successful methods of planning lessons, organizing classes, presenting material, and evaluating progress. American Red Cross certification available. P: none. (S)

742-208 Scuba 2 cr.
The nature and use of equipment peculiar to skin and scuba diving; basic diving skills, functional diving, physiological aspects of respiration, the physics of diving, the physiological and environmental hazards of diving, and proper first aid procedures for emergencies. Certification by PADI may be earned. Additional course fee required. P: none. (F,S)

742-210 Lifeguarding Today 2 cr.
This course provides students with the skills to become an American Red Cross certified lifeguard. Course content includes CPR and first aid for the Professional Rescuer. This course emphasizes preventive lifeguarding skills. Additional course fee required. P: none. (F)

742-213 Sailing I 1 cr.
Advanced techniques of sailing including safety, weather, and navigation. Additional course fee required. P: 742-101.

742-222 Nautilus Training 1 cr.
A resistance training program based upon the constant resistance concept and using Nautilus equipment to enhance strength and flexibility. P: none. (F,S)

742-248 Karate II 1 cr.
Builds upon basic skills and physical and mental development of beginning karate. Provides opportunity to improve students' karate rank by continuing instruction in offensive and defensive techniques in conjunction with voluntary competition. P: 742-148. (S)

742-254 Tennis II 1 cr.
Improves basic skills and develops intermediate skills such as the loop swing, drop shot, drop serve, one-half volley, drop volley, drop shot, approach shot, and more advanced strategy for both singles and doubles. P: 742-154.

742-259 Advanced Racquetball 1 cr.
Provides students with comprehensive insight into all aspects of the sport: safety, conditioning, strategy, and skill analysis for singles, doubles, and other play variations. P: 742-159.

742-401 Philosophy of Athletics and Coaching 2 cr.
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. P: none. (S)

742-402 Psychology and Sociology of Sports 2 cr.
The effects of competition and cooperation, values, spectators, and group interaction on overall performance, social and psychological factors affecting athletes, individual differences in motivation, personality, and social factors as background for prospective coaches. P: none.

742-403 Organization and Administration of Athletics 2 cr.
Various phases of organizing and administering interscholastic athletic program with application to athletics in nonacademic environments as well (e.g. boys' clubs, tennis clubs). P: none. (S)

742-405 Scientific Conditioning of the Athlete 2 cr.
Interrelationships between growth and development and athletic participation by pre-adolescents, principles of physiology of exercise, and general and specific techniques of physical and psychological conditioning are studied; P: 478-102. (F)

742-406 Prevention and Treatment of Athletic Injuries 3 cr.
Prevention, physical conditioning, strapping, property fitted and designed equipment, condition of the competition site, conduct of practices, and respect of existing injuries: estimation the nature an extent of the injury, feasibility of moving the victim, immediate care at the scene, modes of required transport, sideline care, training room modalities, referral for definitive diagnosis, and treatment of simple follow-up rehabilitation. Additional course fee required. P: 742-405 or 204-202 or 478-102. (S)

742-407 Advanced Techniques in Athletic Training 3 cr.
Introduction to advanced evaluations of injuries, treatments and modality usage, rehabilitation techniques, training room administration and organization, preparation for National Athletic Trainers' Association certification exam. P: 742-405 and 478-204. (FE)
744-410 through 744-434 Principles of Coaching 2 cr.
The materials, drill, exercises, and defenses of specific sports gained through the literature of the field, personal interviews and observations, staff lectures and/or conferences. P: none. (FS)

744-435 through 744-459 Field Experiences in Coaching 2 cr.
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 advisor. P: none. (FS)

754 Physics
754-103 Fundamentals of Physics I 5 cr.
A non-calculus physics sequence covering fundamentals of mechanics, energy, power, thermodynamics, sound fundamentals of electricity and magnetism, electronics, light, atomic and nuclear structure and relativity. Applications to the areas of biology, chemistry, the earth science and technology. Full credit will not be granted for both 754-103 and 201 or 202. P: 600 or Math Placement of 600-202 or greater. ES-1. (F)

754-104 Fundamentals of Physics II 5 cr.
A non-calculus physics sequence covering fundamentals of mechanics, energy, power, thermodynamics, sound fundamentals of electricity and magnetism, electronics, light, atomic and nuclear structure and relativity. Applications to the areas of biology, chemistry, the earth science and technology. Full credit will not be granted for both 754-104 and (201 or 202). P: 754-103. (S)

754-141 Astronomy 3 cr.
A study of the solar system, stars, galaxies and universe. Field trips required. C.L. 362-141. P: none. ES-1. (FS)

754-180 Concepts of Physics 3 cr.
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 754-180 and 103, 104, 201 or 202. P: none. ES-1. (F)

754-181 Concepts of Physics Laboratory 1 cr.
Laboratory course to accompany 754-180. Full credit will not be granted for both 754-181 and 103, 104, 201 or 202. P: 754-180 or conc enr. ES-1. (F)

754-201 Principles of Physics I 5 cr.
A calculus physics sequence for students of science and engineering. Includes fundamentals of mechanics, Newton's laws, momentum, energy, fluid statics and dynamics; temperature, heat transfer, thermodynamics; vibrations, waves and sound; electric forces and fields, DC and AC circuits, magnetism; atomic structure, semiconductors; electromagnetic waves, light; relativity, quantum mechanics, nuclear physics and elementary particles. Full credit will not be granted for both 754-201 and (103 or 104). P: 600-202. ES-1. (F)

754-202 Principles of Physics II 5 cr.
A calculus physics sequence for students of science and engineering. Includes fundamentals of mechanics, Newton's laws, momentum, energy, fluid statics and dynamics; temperature, heat transfer, thermodynamics; vibrations, waves and sound; electric forces and fields, DC and AC circuits, magnetism; atomic structure, semiconductors; electromagnetic waves, light; relativity, quantum mechanics, nuclear physics and elementary particles. Full credit will not be granted for both 754-202 and (103 or 104). P: 754-201 and 600-202. (S)

754-317 Optics 3 cr.
Study of geometric and physical optics. Topics include optical instruments, diffraction, interference, polarization, lasers, and modern applications of optics. P: 754-202. (FO)

754-318 Optics Laboratory 1 cr.
Experiments in geometric and physical optics. P: 754-317 or conc enr. (FO)

754-320 Thermodynamics and Kinetics 3 cr.

754-321 Structure of Matter 3 cr.
Integrated approach to the concepts of physical chemistry and modern physics: introduction to quantum theory, symmetry, atomic and molecular structure, crystal structure, spectroscopy, X-rays, properties of gases, liquids and solids. C.L. 225-321. P: at least a C grade in 225-212, 754-202, and 600-203. (S)

754-322 Thermodynamics and Kinetics Laboratory I 1 cr.
Laboratory course to accompany 225/754-320. C.L. 225-322. P: 754-320 or conc enr or 225-320 or conc enr. (S)

754-323 Structure of Matter Laboratory 1 cr.
Laboratory course to accompany 225/754-321. C.L. 225-323. P: 754-321 or conc enr or 225-321 or conc enr. (S)

754-390 Electronics for Scientists 3 cr.
Fundamentals of electronics, electronic elements, basic circuits, combinations of basic into measurement and control instruments. P: 754-104 or 202; and 600-202. (SO)

754-415 Solar and Alternate Energy Systems 3 cr.
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 magnetohydrodynamics. C.L. 362-415. P: 754-104 or 202. (SE)

754-417 Nuclear Physics and Radiochemistry 3 cr.

754-418 Nuclear Physics and Radiochemistry Laboratory 1 cr.
Laboratory course to accompany 225/754-417. Full credit will not be granted for both 754-418 and 342-380. C.L. 225-418. P: 754-417 or conc enr or 225-417 or conc enr. (SE)

754-485 Microprocessors and Digital Electronics 3 cr.
Digital electronics, microcomputer interfacing and microcomputer programming. C.L. 266-485. P: background or prior course experience in electronics. (F)

778 Political Science

778-100 World Politics 3 cr.
The course introduces students to global problems, issues and debates that have emerged since the end of the Cold War. The lectures and readings focus on contemporary political, economic and social changes primarily in Africa, Asia, Latin America, the Middle East and Eastern Europe. P: none. GC/SS-1. (F, S)

778-101 American Government and Politics 3 cr.
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. P: none. SS-1. (F, S)

778-202 Introduction to Public Policy 3 cr.

778-215 Understanding Presidential Elections 3 cr.
The electoral system affecting presidential campaigns and elections: the role of political parties, political action committees, the mass media and campaign professionals; the nomination process; electoral rules and procedures; voter behavior; and political strategies. Offered only during presidential election years. P: none.
778-230 Law and the Judicial Process 3 cr.
See 875-230, SS-2.

778-301 Environmental Politics and Policy 3 cr.
See 835-301.

778-305 Urban Politics and Policy 3 cr.
See 951-305.

778-306 Regulatory Policy and Administration 3 cr.
See 835-306.

778-310 The American Presidency 3 cr.
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 the presidency of Franklin Roosevelt. P: 778-101. (SE)

779-312 Community Politics 3 cr.
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: 778-101. (S)

778-314 Administrative Law 3 cr.
See 835-314.

778-316 Congress: Politics and Policy 3 cr.
Legislative institutions and policies, emphasizing the U.S. Congress. The role of legislators in American politics; elections, representation, formal and informal legislative institutions and practices, leadership, interest groups, and lobbying, and the role of legislatures in policy innovation. P: 778-101. (S)

778-318 Political Behavior 3 cr.
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: 778-100 or 101. (F)

779-320 Constitutional Law 3 cr.
See 875-320.

779-340 Political Theory 3 cr.
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: 778-100 or 101. (F)

778-351 Comparative Political Systems 3 cr.
Comparative political analysis of the major European nations and the European Union. P: 778-100 or 101. OC. (S)

778-353 Politics of Developing Areas 3 cr.
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: 778-100 or 101. OC/SS-2. (F)

778-360 International Relations 3 cr.
The course focuses on understanding and explaining the interaction between state and non-state actors, and analyzes recent changes in international organizations and the international political economy. P: 778-100 or 101. (S)

778-408 Public Policy Analysis 3 cr.
See 835-408.

778-416 Intergovernmental Relations 3 cr.
The relations among the federal, state and local units of government; federalism, intergovernmental revenues and expenditures, intergovernmental policies and grants in-aid. P: 778-101. (F)

620 Psychology

820-102 Introduction to Psychology 3 cr.
Understanding of behavior from psychophysical, cognitive, social, and cultural perspectives. Important issues, methods, and findings in the study of psychological process. P: none; SS-1. (F, S)

820-300 Experimental Psychology 4 cr.
Experimental methods in psychological research, designing and drawing conclusions from experimental research; critiques of research reports; individual and group laboratory projects. P: 255-205 or 600-260. (F, S)

820-306 Psychology of Perception 3 cr.
Examination of the physiological and psychological processes that enable us to obtain, organize, and understand information from the world. Special emphasis is given to visual perception. P: jr or sr; and 820-102 or 481-210. (F)

820-308 Physiological Psychology 3 cr.
Introduction to the biological bases of behavior. Basic sensory, motor, and brain mechanisms are described in reference to normal and abnormal behaviors. Drugs and hormone effects on infants and adults are also discussed. P: 820-102 or 481-210 or 478-102. (S)

820-330 Social Psychology 3 cr.
An exploration of theory, method, and empirical results regarding individual behavior in groups. Major topics include social cognition, aggression, helping, and attraction. P: 820-102. (F)

820-390 Environmental Psychology 3 cr.
Human-environment relationships; examines ways in which the physical environment influences human behavior. P: 820-102. (S)

820-401 Psychology of Women 3 cr.
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, social, and relationship roles. The interacting influences of biology, socialization, and cultural context are considered. P: 820-102 or 481-210. (F)

820-403 Human Physiology Laboratory 2 cr.
This course provides students with laboratory experiences designed to help them appreciate and understand the physiology of the major systems of the human organism. Classic and contemporary experiments will be used to provide students with an appreciation for the scientific method as well as the importance of technology in science. C.L. 478-403. P: 204-203 or 478-204 or 820-308. (SE)

820-415 Organizational and Personnel Psychology 3 cr.
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: jr or sr; REC: 255-301. (F, S)

820-417 Psychology of Cognitive Processes 3 cr.
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: jr or sr; and 820-102 or 481-210. (S)

820-420 Tests and Measurements 3 cr.
An overview of the uses and underlying psychometric concepts of psychological tests. Examines selected issues in the areas of intelligence, personality, achievement, and interest assessment. Discusses controversial issues of legal, ethical, and cultural issues related to testing. C.L. 481-420. P: jr or sr; and 800-260 or 255-205. (F, S)

820-425 Advanced Physiological Psychology 4 cr.
Brain and behavior: from neurons to drugs to brain transplants, current concepts, issues, and methods of neuroscience are developed through landmark discoveries. P: 820-308. (F)
830-429 Theories of Personality 3 cr.
Major ideas about the organization, function, change and development of human personality as discussed by a variety of personality theorists. C.L. 481-429. P: 481-331, 332 or 343. (F,S)

820-430 History and Systems of Psychology 3 cr.
Major schools, figures, trends and systems of thought in the field of psychology; shifts in the conceptualization of the problems, phenomena, methods and tasks for psychology. P: 820-102 and 820-300 and one upper-level psychology course and Jr st. (F)

820-435 Abnormal Behavior 3 cr.
Major psychological, biological, and sociocultural models of abnormal behavior, including problems of childhood adolescence; and aging. Contextual issues are emphasized, including the influence of culture, class, and gender on diagnosis and treatment. C.L. 481-435. P: 481-331, 332 or 343. (F,S)

820-450 Health Psychology 3 cr.
This course examines the health, illness, and medicine can be 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: 481-210 or 820-102: and 820-300 and 330. (S)

835 Public and Environmental Affairs

835-202 Introduction to Public Policy 3 cr.
Contemporary issues in American public policy. Substantive public policies such as those dealing with the American economy, energy, crime, environmental quality, the welfare state and social programs, These models of the policy process are also considered. C.L. 778-202. P: none. SS-2. (F,S)

835-215 Introduction to Public Administration 3 cr.
Examine 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 dimensions in creating and implementing public policies and programs. P: 778-101 or 778-202 or 835-202. SS-2. (F)

835-301 Environmental Politics and Policy 3 cr.
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 institutions in response to environmental challenges, and strategies for environmental improvement. C.L. 778-301. P: 778-101 or 778-202 or 835-202. (F,S)

835-306 Regulatory Policy and Administration 3 cr.
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. C.L. 778-306. P: 778-101 or 778-202 or 835-202. (S)

835-314 Administrative Law 3 cr.
Administrative law in the American and local governmental system: fundamentals of administrative law; connections between administrative law issues and issues of public policy; and legal dimensions of administrative problems. C.L. 778-314. P: 778-101 or 835-215. (SE)

835-315 Public and Non-Profit Management 3 cr.
Covers governmental institutions, implementation structures, and social action networks which are intended to achieve public purposes. Management approach, techniques, values and analysis considered in depth. P: 778-101 or 778-202 or 835-202. REC: 835-215. (S)

835-322 Environmental Planning 3 cr.
History, processes, and impacts of environmental planning in the United States: Action forcing legislation and its effect on environmental issues and processes. Emphasizes environmental planning and implementation at the national, state, and local levels. P: 362-102; and 778-202 or 835-202. (S)

835-323 Land Use Controls 3 cr.
Various forms of public land-use controls in planning and administration, addressing "what, why and how" aspects of land-use controls. Students analyze zoning and subdivision regulations of a selected community. P: Jr st. (S)

835-344 Leadership in Organizations 3 cr.
Roles, functions and environments of organizational supervisors, project leaders, executives, managers, administrators and other administrative agents, especially in public enterprises; the relationships between the behavior of administrative agents and work group performance in organizational and program settings. P: none. (F)

835-350 Geographic Information Systems 3 cr.
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. Applications are tailored to fit student interests and may include tax base analysis, property mapping, natural resources inventory, crime demography, transportation routing, and other tasks. C.L. 416-350. P: none. (F,S)

835-356 Environmental Impact Analysis 3 cr.
Examines procedural requirements of the National Environmental Policy Act, state NEPA equivalents, interdisciplinary approaches to environmental impact analysis, and assessment of alternatives. Students conduct environmental assessments, emphasizing social impact analysis. P: Jr st. (F)

835-378 Environmental Law 3 cr.
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: upper-level course in political science or public administration of 778-101 or 835-215. (F)

835-402 Environmental and Resource Economics 3 cr.
Applications of tools such as cost-benefit analysis and other economic concepts in public decision making, with special emphasis upon common property resources management. C.L. 298-402. P: 298-203. REC: Jr st. (F,S)

835-406 State and Local Government 3 cr.
The structure and operation of state and local governments and their political systems. Emphasizes issues of importance to each level, the interaction between levels, and Wisconsin as a case study. P: 778-101 or 835-215. (S)

835-408 Public Policy Analysis 3 cr.
An introduction to public policy analysis and to the policy-making process, primarily in American government. Political aspects of policy analysis, models and methods for rational design of public policies, applications of policy studies to particular public problems. C.L. 778-408. P: 778-101 or 778-202 or 835-202. (F)

835-409 Public Finance and Fiscal Policy 3 cr.
Effects of government spending and taxation on resource allocation, incomes, prices and employment. Includes consideration of the uses and effects of fiscal policy. C.L. 298-409. P: 298-203. (PO)

835-415 Public and Nonprofit Budgeting 3 cr.
The purposes and attributes of major public budgetary systems: principles and methods in designing and managing relationships among program planning, policy planning and budgetary operations; applications of analytical and decision-assisting tools in public budgetary operations. P: 778-101 or 778-202 or 835-202 or 835-215. (S)

835-450 Advanced Geographic Information Systems 3 cr.
See 416-450.

835-452 Planning Theory and Methods 3 cr.
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: 216-215 or 255-205 or 600-260. (S)
875-366 Social Change in a Selected Area 3 cr.
Processes and strategies of social change and development in a selected nation or set of nations. Course may be repeated for credit with different area. P: 448-100; and 352-105 or 228; and 2 lower-level courses in political science, economics, anthropology, sociology, or history. OC: (FS)

875-340 Women, Work and Family 3 cr.
The problems women encounter as workers: implications of such issues as women's double shift, differential wage scales and job segregation; social and economic variables which have shaped women's place in the economic system; strategies for change. P: none. SS-2. (F)

875-345 Women, Race and Culture 3 cr.
The changing position of women in selected preindustrial, developing and industrial societies and the cultural, social, political and economic institutions which shape women's lives worldwide. P: 875-241 or 156-100 or 990-202 or 448-100. OC/S9-2. (S)

875-348 Women and the Law 3 cr.
The changing legal status of women in relationship to other social forces; major historical landmarks in the development of women's legal rights and current status of such areas as property rights, family law and employment opportunity; legal tools in the struggle for equality. P: 875-241 or 156-100 or 990-202 or 448-100. OC/S9-2. (F)

875-351 International Organizations: Policies and Practices 3 cr.
This course provides students with an opportunity to study the agendas and activities of international organizations in practical settings and formal simulations. A delegation of students will be assembled to participate in a Model United Nations or Model Organization of American States simulation at a regional, national, or international venue. P: 778-353 or 778-360 or 875-361 or 875-361 or 448-158. (S)

875-360 Models and Social Change 3 cr.
The value-oriented problems of defining social change; use and construction of models as analytical tools in the study of social change. P: 156-100 or 296-202 or 298-203 or 778-100 or 900-202; and 352-105 or 228. (S)

875-361 Historical Perspectives on Social Change 3 cr.
Application of concepts and models of social change to the processes of social change through time; historical processes of social change and the value implicit in them. P: 352-105 or 228; REC: 156-100 or 900-202; and 448-100 or 493-202. (FS)

875-362 Power and Change in America 3 cr.
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: 778-101 or 900-202. (S)

875-375 Women, Politics and Social Change 3 cr.
Differing strategies women use to affect politics and social change, the assumptions and consequences of these strategies; women's efforts to resist social change; contemporary and historical examinations of women's involvement in political issues and political structures. P: course in women's studies. (S)

875-337 Feminist Theory 3 cr.
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: 875-241. (SO)

875-461 History, Politics and Social Criticism 3 cr.
Examination of contemporary social criticism on both the Left and Right of American political life with attention to both the historical perspectives drawn upon and the visions of past, present and future provided by selected writers from across the spectrum of intellectual politics. P: 875-360 or 875-361 or 900-302 or 900-307. (SE)

875-470 Senior Seminar in Social Change and Development 3 cr.
Rigorous analysis of an important social change issue or of the work of an important social change theorist. Repeatable to 3 cr. P: 875-360 and 361; and 352-105 or 228. (FS)
892 Social Work
892-202 Introduction to Human Services 3 cr.
Overview of career opportunities in the human services; explores such fields of practice as aging, corrections, alcohol and substance abuse, child welfare, mental health and the developmentally disabled. P: none. (F)

892-287 Introduction to Counseling Skills and Techniques 3 cr.
Developing and increasing skills and awareness required for competent behavior as a helping person. P: residence hall assistant or BSW classification. (F)

892-275 American Social Welfare 3 cr.
Overview of the institution of American social welfare; how the U.S. has developed social policies and services to meet social problems and institutional arrangements that provide people with resources and services to meet their needs. P: none. REC: 778-101. (F)

892-300 Field Experiences in a Social Service Agency 1 cr.
Introductory exposure to working in a social service agency; professionally supervised program of observation and assistance in the agency. Repeatable to 3 cr. P: conc enr in 892-305. (S)

892-305 The Social Work Profession 3 cr.
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 social work. (F)

892-315 Social Work Skills Lab I 1 cr.
Instruction and practice in basic interviewing skills for the beginning social work professional. P: conc enr in 892-305. (F)

892-320 Exploration of Practice I 3 cr.
Overview of social work practice and services offered in a variety of agency settings. Presentations by practitioner experts from each service setting. P: major in social work and jr st.

892-332 Social Work Skills Lab II 1 cr.
Instruction and practice in interpersonal skills required for working with other professionals, including use of supervision, teamwork, mediation, negotiation, referral and conflict management. P: conc enr in 892-370. (S)

892-351 Child Welfare Services and Programs 3 cr.
Analysis of the place of child welfare policies and services among society's general provisions for family welfare and support. Overview of childhood programs and services and the broad principles underlying delivery of services. P: 892-305. (S)

892-360 Social Service Delivery Systems and Cultural Differences 3 cr.
Social service programs of culturally and technologically different societies; nature of the differences between the care-giving institutions are related to the cultures from which they have emerged. P: prior written cons. inst.

892-370 Social Work Methods I 3 cr.
Application of social work methods to planned changes with organizations and communities; explores how agency and community contexts shape social work practice. P: 892-305. (S)

892-371 Human Behavior and the Social Environment 3 cr.
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: 892-305 and 478-102. (S)

892-402 Field Practice I 5 cr.
Actual social service work through placement in a social service agency. P: conc enr in 892-411. (F)

892-403 Field Practice II 5 cr.
Actual social service work through placement in a social service agency. P: 892-402 and conc enr in 420. (S)

892-411 Social Work Methods II 3 cr.
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: 892-370. (F)

892-413 Social Work Skills Lab III 1 cr.
Instruction and practice in advanced interviewing skills needed by the beginning social work professional. P: conc enr in 892-411. (F)

892-420 Social Work Methods III 3 cr.
Theory and methods of planned change interventions with specific populations at risk; integration of micro and macro level practice, with emphasis on community organizing; evaluation of practice; and termination. P: 892-411. (S)

892-423 Social Work Skills Lab IV 1 cr.
Instruction and practice in professional intercultural skills focusing on small and large groups, and specialized intervention skills. P: conc enr in 892-420. (S)

892-430 Social Policy Analysis 3 cr.
Analyzing and formulating social policy; development of skills in policy analysis and intervention; integration of experience in senior field practica. P: 892-275. (F)

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: 892-370; REC: 892-351. (F)

892-460 Program Evaluation 3 cr.
Introduction to the principles of program evaluation; design and implementation evaluation research projects in the community. P: 892-411 and 255-301. (S)

900 Sociology
900-202 Introduction to Sociology 3 cr.
Major sociological concepts and ideas and their application to contemporary problems of societies. P: none. SS-1. (F,S)

900-203 Minority Groups 3 cr.
The character of racial, religious and ethnic minority groups; and social and economic adjustments in American society; the role of private and public agencies. P: 900-202 or 156-100, EL/SS-2. (F)

900-202 Class, Status and Power 3 cr.
Class, status and power as determinants of group interests, preferences, ideologies and struggles; examination at the national and international levels. P: 900-202. (S)

900-303 Race and Ethnic Relations 3 cr.
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: 900-202 or 203 or introductory-level social science course. Ex. S. (S)

900-304 Deviant Behavior 3 cr.
Foundations of morality and the relationship between morality and deviance; positive and negative aspects of both deviance and conformity. P: 900-202.

900-307 Social Theory 3 cr.
Critical analysis of classical and contemporary social theories with attention to the social and intellectual context and contemporary application. P: 900-202. (S)
900-308 Sociology of the Family 3 cr.
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. Pr: so st: and 900-202 or 481-210 or 156-100. (F)

900-310 Urban Sociology 3 cr.
See 551-310.

900-375 Sociology of Sexual and Intimate Relations 3 cr.
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. Pr: 875-235 and 900-202; or 900-202 and two other social science courses.

900-404 Criminology 3 cr.
The relationship of crime and society, focusing on causes of crime. Pr: 900-202 and one 300-level sociology course. (S)

908 Spanish

908-101 Introduction to the Spanish Language I 4 cr.
Development of basic ability in understanding, reading, speaking and writing in Spanish. Pr: none. (F)

908-102 Introduction to the Spanish Language II 4 cr.
Development of basic ability in understanding, reading, speaking and writing in Spanish. Pr: none; REC: 1 yr high school or 1 semester college Spanish. (S)

908-201 Intermediate Spanish Language I 3 cr.
Further development of the ability to understand, read, write and speak Spanish. Pr: none; REC: 2 yrs high school or 2 semesters college Spanish. (F)

908-202 Intermediate Spanish Language II 3 cr.
Further development of the ability to understand, read, write and speak Spanish. Pr: none; REC: 3 yrs high school or 3 semesters college Spanish. OC. (S)

908-225 Intermediate Spanish Conversation and Composition 3 cr.
Development of greater fluency through classroom practice in conversation and composition. Pr: none; REC: 4 yrs high school or 4 semesters college Spanish. OC. (F, S)

908-285 Study Abroad: Spain and Latin America 3-15 cr.
See 908-485. OC.

908-323 Advanced Spanish Conversation and Composition 3 cr.
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. Pr: 908-225. OC. (S)

908-329 Representative Spanish and Latin American Authors 3 cr.
Important novels, plays, poems, and essays representative of major eras and movements of Spanish and Latin American societies. Pr: 481-225 and 305. OC. (S)

908-345 Advanced Spanish Grammar 3 cr.
In-depth review and continued study of Spanish grammar. Pr: 908-225. OC. (SO)

908-351 Major Spanish and Latin American Fiction 3 cr.
Study of Spanish short story and/or novels either by period or by theme. Pr: 908-225. OC. (S)

908-355 Spanish and Latin American Cinema 3 cr.
Historical and critical introduction to the work of prominent Spanish and Latin American filmmakers and to thematic representations of Spanish and Latin American Cultures. C. L. 493-355. P: 908-225. OC. (FE)

908-358 Latin America Today 3 cr.
Specific humanistic aspects of contemporary Latin American culture, including its history, art, literature, music and value systems. Pr: 908-225. OC. (FE)

908-359 The Cultures of the Americas 3 cr.

908-360 Spain Today 3 cr.
Aspects of contemporary Spain, including its cultures, architecture, music, art and values. Credit not granted for both 908-360 and 493-360. Pr: 908-225. OC. (PO)

908-361 The Cultures of Spain 3 cr.
This course provides a historical overview of the many cultures that have played a role in the development of what is now Spain. Pr: 908-225. OC. (SO)

908-362 Travel Course: Spain 3 cr.
Field trip to Spain to study its art, history, architectural styles and cultural diversity. Guided tour to cities of historical significance. C. L. 493-362. Pr: cons of inst and prior trip arr and financial deposit. OC. (SO)

908-363 Travel Course: Mexico 2 cr.
Exposure to the accessible portions of a culture of ancient Mexico, the culture of present day Mexican villages and the culture of contemporary urban Mexicans, typically in the states of Yucatan, Quintana Roo, Campeche, and Chiapas; emphasis typically upon ancient and contemporary Maya cultures. Pr: cons of inst and prior trip arr and financial deposit. OC. (S)

908-372 Spanish Phonetics 3 cr.
Survey of descriptive linguistics with emphasis on the sound system of Spanish. Pr: 908-225. OC. (FE)

908-438 Major Spanish and Latin American Writer(s) 3 cr.
Study of an outstanding figure in Spanish and Latin American literatures. Pr: 908-225; REC: 908-323 and 329. OC. (SO)

908-485 Study Abroad: Spain and Latin America 3-15 cr.
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. Pr: cons of adviser and prior arr with International Education Office. C. L. 908-285. OC. (F, S)

912 Student Support Services

912-000 Applied Study Skills Lab 3 cr.
Introduction to and practice with requisite college-level study skills; including time management, note taking, vocabulary development, textbook strategies, critical reading, and exam preparation. Skills are taught in an applied context in conjunction with a freshman-level introductory course. Offered on a pass/no credit, non-degree credit basis only. Pr: concurrent enrollment in specified course; see current Timetable. (F, S)

912-006 Student Success Seminar 1 cr.
This course is intended as an orientation to college course for new freshmen. The course presents a broad introduction to such basic principles of success in college as setting personal and academic goals, developing college-level academic skills, and utilizing campus resources. Offered on a pass/no credit, non-degree credit basis only. Pr: none. (F)
912-087 Supplemental Course Attachment 1 cr.
Discussion course designed to assist the student in becoming more confident and proficient in a particular subject area. The course focuses on specific study skills, practice exercises, addressing course related questions, and preparing for exams and/or quizzes. Offered on a pass/no credit, non-degree credit basis only. P: none. (F,S)

912-091 Ideas: Dialogue: Critical Thinking 3 cr.
This is a workshop course which aims to develop students as creative and critical thinkers. Students will read from a variety of sources, reflect about the topics in a journal, discuss these ideas formally in class, and write a short paper. P: ACT 17 or higher or 912-093 or SAT 450 or higher, ($)

912-092 Critical Reading 2 cr.
This course incorporates college level study skills with general reading improvement techniques. Emphasizes vocabulary building, comprehension improvement, reading rate and flexibility. Course format is a combination of class meetings and individual laboratory work. Offered on a pass/no credit, non-degree credit basis only. P: none. (F,S)

912-093 Fundamentals of Writing 3 cr.
The focus of this course is intended to aid students in generating written discourse which can eventually be shaped or revised as an expository prose. The course is a skills course; its intent is to provide students with the fundamental skills needed for the production of expository prose. The focus of the course is on sentence production, correction, and style; paragraph production and organization; spelling skills; reading skills and the production or practice of limited research skills, i.e. paraphrasing, summary, and documentation. Grammatical concerns are also stressed, i.e. verb tense, pronoun reference, subject-verb agreement, and punctuation. Offered on a pass/no credit, non-degree credit basis only. P: none. (F,S)

912-094 Elementary Algebra 3 cr.
Intended as a preparation for 600-101. Topics include: properties of real numbers, exponents and polynomials, simplifying variable expressions, linear equations and inequalities, factoring, graphing, and basic quadratic equations. Required for WMET AB score of 422 or lower or BC score of 389 or lower. Offered on a pass/no credit, non-degree credit basis only. P: none. (F,S)

915 Theatre
915-128 Jazz Dance I 1 cr.
Introduces the beginning dance student to the techniques, theories and practice of the jazz genre. Repeatable to 3 cr. P: none. FA. (F,S)

915-131 Acting I 3 cr.
Develops a basic organic approach to acting technique through theater games, vocal and physical exercises and improvisation. Development of skills and vocabulary for the actor's sense of self and ability to adapt to a variety of performance situations. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. FA. (F)

915-137 Ballet I 1 cr.
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. Repeatable to 3 cr. P: none. FA. (F,S)

915-138 Ballet II 2 cr.
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. Repeatable to 8 cr. P: 915-137. FA. (F,S)

915-145 Modern Dance I 1 cr.
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. Repeatable to 3 cr. P: none. FA. (F,S)

915-161 Tap Dance I 1 cr.
An introductory study of tap dancing, with emphasis on the basic techniques of walk, clog, soft shoe, and rhythm tap dances. Repeatable to 3 cr. P: none. FA. (F,S)

915-190 First Year Applied Musical Theatre Voice I 1 cr.
See 672-190. FA. (F,S)

915-230 Stage Management 3 cr.
Procedures and functions of the professional and nonprofessional stage manager; includes skills such as department organization, scheduling procedures and budget management. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (S)

918-221 Theatre Production Techniques I: Stagecraft 3 cr.
Organization and operation of theatre productions: beginning stagecraft, lighting and sound. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (F)

918-222 Theatre Production Techniques II: Costume and Makeup 3 cr.
Organization and operation of theatre productions: costume, makeup and introductory costume design. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. REC: 915-221. (F)

918-228 Jazz Dance II 2 cr.
Continued study and execution of the style and techniques of jazz dance. Study of the styles of major choreographers in American musical theater. Repeatable to 8 cr. P: 915-128; REC: conc enr in ballet or modern dance. FA. (F)

915-231 Acting II 3 cr.
Scene work in realistic drama; practice in techniques of script analysis and character development. Repeatable to 6 cr. P: 915-131; and conc enr in 915-235, 236, 238, 239, 335, 336, 338, 339, or 339. (F)

915-233 Voice for the Actor I 3 cr.
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. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (F)

915-235 Production Practicum: Crews 1 cr.
Crew member/staff participation in a theatre production. Repeatable to 4 cr. P: cons of inst. FA. (F,S)

915-236 Production Practicum: Cast Member 1 cr.
Performance in a theatre production. Repeatable to 4 cr. P: none. FA. (F,S)

915-238 Production Practicum: Scene Shop 1 cr.
Complete production work in scene shop preparation. Repeatable to 4 cr. P: none. FA. (F,S)

915-239 Production Practicum: Costume Shop 1 cr.
Complete production work in costume shop preparation. Repeatable to 4 cr. P: none. FA. (F,S)

915-245 Modern Dance II 2 cr.
Progression from Elementary Modern Dance with more complex technical problems; understanding and executing modern dance styles. Repeatable to 8 cr. P: 915-145. FA. (F,S)

915-261 Tap Dance II 1 cr.
Continuation of Tap Dance I introducing more complex tap technique. Increase speed and clarity of technique and complexity of tap combinations and dances. Repeatable to 3 cr. P: 915-161. FA. (F)

915-289 Second Year Applied Musical Theatre Voice I 1 cr.
See 672-289. FA. (F,S)

915-290 Second Year Applied Musical Theatre Voice II 1 cr.
See 672-290. FA. (F,S)
915-305 Audition Techniques for the Actor 3 cr.
Preparation of classical and contemporary monologues and scenes, professional resumes and photos; dealing with the business aspects of establishing a career as an actor. P: 915-231; and conc enr is 915-235, 236, 238, 239, 335, 336, 338, or 339. (F)

915-309 Theatre History I 3 cr.
Theatre art and craft: its functions in and significance to the different cultures in which it has thrived. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. FA. (F)

915-310 Theatre History II 3 cr.
Theatre art and craft: its functions in and significance to the different cultures in which it has thrived. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. FA. (F)

915-311 Theatre History III 3 cr.
Theatre art and craft: its function and significance to the different cultures in which it has thrived. Focus is on post World War II theatrical development. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. FA. (SG)

915-321 Scene Design 3 cr.
Practical techniques of scenic 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: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339; REC: 915-221 and 222. (SO)

915-322 Costume Design 3 cr.
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. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. P: conc enr in 915-235, 335, 236, 238, 239, 335, 336, 338, or 339; REC: 915-221 and 222. (SO)

915-223 Stage Lighting 3 cr.
Aesthetic practice of design of lighting in theatrical production: composition and psychological effects of stage lighting; contemporary equipment and control systems. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339; REC: 915-221 and 222. (SO)

915-325 Three-Dimensional Stage Makeup 3 cr.
Principles and applications of stage makeup: materials, light and color, and character analysis. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339; REC: 915-221 and 222. (SO)

915-228 Jazz Dance III 3 cr.
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. Repeatable to 10 cr. P: 915-228 and at least 4 cr of 915-228. (S)

915-331 Acting III 3 cr.
Scene work in poetic drama and period plays; techniques of verse interpretation, research into production history and performance styles; use of appropriate movement, manners and behavior. Repeatable to 6 cr. P: 915-231; and conc enr in 915-235, 335, 236, 336, 238, 338, 239, or 339. (S)

915-332 Voice for the Actor II 3 cr.

915-335 Production Practicum: Crews 1 cr.
Crew member/staff participation in a theatre production. Repeatable to 4 cr. P: jr st and cons of inst. FA. (FS)

915-336 Production Practicum: Cast Member 1 cr.
Performance in a theatre production. Repeatable to 4 cr. P: jr st. FA. (FS)

915-338 Production Practicum: Scene Shop 1 cr.
Complete production work in scene shop preparation. Repeatable to 4 cr. P: jr st. FA. (FS)

915-339 Production Practicum: Costume Shop 1 cr.
Complete production work in costume shop preparation. Repeatable to 4 cr. P: jr st. FA. (FS)

915-340 Dance History 3 cr.
Origins and chronological development of dance styles, including ballet, modern, jazz, musical theater and social dance. Major works and personalities influencing dance from aboriginal cultures to the present day. P: none. FA. (FD)

915-351 Directing I 3 cr.
Theories and techniques of theatrical staging and relationship of the director to the actors. Study of drama, dramatists, critics and directors; staging and directing exercises. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (F)

915-352 Directing II 3 cr.
Theories and techniques of theatrical staging and relationship of the director to the actors. Study of drama, dramatists, critics and directors; staging and directing exercises. P: 915-351; and conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339; REC: 6 cr in theatre courses. (SE)

915-361 Tap Dance III 1 cr.
Continuation of Tap Dance I, increase speed, clarity and complexity of technique, combinations and dances. Introduce syncopated and complex rhythms and techniques. Repeatable to 3 cr. P: 915-261. (S)

915-389 Third Year Applied Musical Theatre Voice I 1 cr.
See 672-389. FA. (FS)

915-390 Third Year Applied Musical Theatre Voice II 1 cr.
See 672-390. FA. (FS)

915-405 Theatre Management 3 cr.
Theatre management at the professional and nonprofessional levels: organization and classes of professional and nonprofessional theaters; financial or business management; box office procedures; promotion and publicity techniques and strategies. P: conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339; REC: 6 cr in theatre arts courses. (SO)

915-423 Advanced Stage Lighting 3 cr.
Aesthetic practice of lighting in theatrical production, emphasizing programming and analysis. Practical application of the tools used in lighting. P: 915-323; and conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (SO)

915-424 Advanced Technical Practices 3 cr.
Modern theatre technology: electronics, optics, scene painting, pattern drafting, stage mechanics and the artistic potentialities of these technologies. Participation in a theatre production (minimum 40 hours) required. Additional course fee required. Repeatable to 9 cr. P: 915-221 and 222; and conc enr in 915-235, 236, 238, 239, 335, 336, 338, or 339. (FS)

915-433 Vocal Specialization 1 cr.
Detailed production specific vocal work for special problems and/or situations to character development and vocal production issues. P: 915-236 and cons of inst. (FS)

915-440 Choreography 3 cr.
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: 915-228 or 245. (FD)

915-489 Fourth Year Applied Musical Theatre Voice I 1 cr.
See 672-489. FA. (FS)

915-490 Fourth Year Applied Musical Theatre Voice II 1 cr.
See 672-490. FA. (FS)
951-341 The City and its Regional Context 3 cr.
The course will focus on two main interrelated themes in urban geography. It will explore urban places as systems operating as an entity among other cities and the surrounding region. Second, it will explore social construction of urban morphology. Additional course fee required. Field trips required. C.L. 416-341; P: jsr; and 296-202 or 203. (F)

951-342 Land Resources: Approaches to Urban and Regional Development 3 cr.
Variety of forces involved in community economic development, including the human and nonhuman resource potentials, motivation, values and attitudes. Examines social and economic structures such as transportation, communication, and community services from the point of view of community development. P: jsr; and 296-202 or 203. (F)

951-351 Transportation and the City 3 cr.
The impact of the transportation subsystem of the city upon other urban subsystems (residential, commercial) and upon urban dwellers. P: jsr; and 778-101 or 778-202 or 835-202 or 951-100. (FO)

951-370 Geography of South America 3 cr.
A survey course which will explore the physical features, resources, people, and the political economy of the American southern hemisphere. C.L. 416-370. P: jsr; REC: 362-102 or 416-223. OC. (FE)

951-377 Analysis of Northern Lands 3 cr.
A topical and regional analysis of the subarctic and arctic area of North America and Eurasia; regional emphasis on Alaska, northern Canada and Scandinavia. Field trips required. C.L. 416-377. P: jsr. (F)

951-392 Analysis of South Asia 3 cr.
Regions of South Asian countries in various stages of development. Emphasis on interaction of physical and human resources. P: jsr. OC. (FO)

951-412 Urban and Regional Planning 3 cr.
Examines planning theory, focusing on models of rationality, valuation processes, political decision-making, governmental structure and fiscal policies. P: jsr; and 416-102 or 778-202 or 835-202 or 951-100 or 951-102; REC: 778-101. (F)

951-430 Seminar in Ethics and Public Affairs 3 cr.
A capstone course for all students in urban and public affairs 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: jsr. (S)

951-436 Environmental Design Studio I 3 cr.
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. C.L. 242-436. P: 168-106; REC: 951-210. (F)

951-437 Environmental Design Studio II 3 cr.
Analysis and design of group spaces, such as houses, classrooms, waiting rooms, and other spaces intended for occupancy by groups of people. C.L. 242-437. P: 951-210; and 242-436 or 951-436. (S)

951-438 Environmental Design Studio III 3 cr.
Projects at the urban scale: design teams analyze physical, social, economic, historical, and administrative aspects of specific problems. Students formulate urban design program and produce policies, plans, and designs. C.L. 242-438. P: 242-437 or 951-437. (F)

951-439 Environmental Design Studio IV 3 cr.
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. C.L. 242-439. P: 242-437 or 951-437. (S)

951-461 Urban and Regional Studies Laboratory 3 cr.
A multi-disciplinary investigation into a specialized topic within urban and regional studies. Includes topics such as education, employment, housing and transportation, and urban and regional policy. P: written consent of instr.
Admission Standards
Study at the university level requires competence in academic skills. Preparation for university study is best achieved by a rigorous high school program. In order to be assured that students are prepared to successfully complete college-level work, UW-Green Bay has set standards for admission.

Although UW-Green Bay has strong admission requirements, it is guided by a philosophy of "personalized admission." Consideration is given for experiences since high school, special circumstances, and socio-economic background. For these reasons, students not meeting the standard admission policy are reviewed individually. The review committee examines each student’s record and determines whether or not admission may be granted.

Enrollment Limitations
UW-Green Bay has established enrollment limits in conjunction with UW System administration. Because of these limits, students who meet minimal requirements for admission may be placed on a waiting list or denied admission due to capacity limits. Early application is strongly recommended. The application priority date is typically February 1 for freshmen and March 1 for transfer and reentry students.

Requirements for New Freshmen
To qualify for admission to UW-Green Bay, a student should:
- be a graduate of a recognized high school or its equivalent (as defined by University of Wisconsin policy);
- submit official ACT or SAT I scores;
- rank in the upper half of the graduating class. Students from schools not providing class rank should have a gpa of at least 2.5 on a 4.0 scale and an ACT score of at least 20. (Note: Both class rank and gpa requirements are subject to change based on enrollment management needs. See Admission Status section below);
- present 17 credits of college preparatory or academic coursework.

Unit distribution must be:
- English (3 from composition and literature) 4 credits
- Social Studies 3 credits
- Mathematics (algebra and above) 3 credits
- Science 3 credits
- Academic Electives* 2 credits
- Other Electives** 2 credits
Total 17 credits

* From the areas of English, speech, advanced math, social studies, science or foreign language.
** Additional units in the above areas and/or in the fine arts, computer science, or other academic areas are required.

International students who cannot provide class rank or ACT/SAT I scores may be admitted on the basis of high school graduation and academic work that equates to at least a "B" average and demonstrates English proficiency shown by earning a satisfactory TOEFL score. (See additional information on international student admission in section below titled Other Admission Information.)

Other Ways to Qualify
UW-Green Bay also responds to the educational needs of special groups of students. Specific requirements for such groups are used by the admissions review committee to determine whether admission may be offered or denied.

Students Lacking Rank in Class or Academic Unit Requirements
The admissions review committee will consider applicants based on a number of factors. These are described below. Generally, admission does not depend on only one factor; rather, a number of factors are considered.
- An ACT composite score of 23 or greater or SAT I score of 1070.
- A score above 75th percentile on the School and College Ability Test (SCAT) and the California Achievement Test – Reading, and demonstration of acceptable writing ability.
- Successful completion of additional coursework at another institution, whether or not for credit, which indicates either that deficiencies have been corrected or that the student has demonstrated ability to succeed in college.
- Consideration for returning adults, multicultural students, veterans, or other individuals who, on the basis of testing, experience, or other generally accepted indicators are judged by the admissions review committee to have a reasonable chance of being successful at UW-Green Bay.

GED 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 work completed;
- a combined GED score of at least 265 with no individual test below 50th percentile;
- an acceptable admission test score of at least 75th percentile on the School and College Ability Tests (SCAT) and the California Achievement Test – Reading, and demonstration of acceptable writing ability, or ACT score of 20 or SAT I score of 950.

Students with individual GED scores below 50th percentile may be considered if additional coursework has been taken to improve ability in that area. Since a GED test may be taken only once if a passing score is earned, successful additional work may be presented as evidence of ability.

Home Schooled Applicants
The admissions review committee will consider students individually based on coursework completed, standardized test scores and additional information as requested.

Educational Opportunity Program (EOP)
EOP is a personalized admission option for new and transfer students whose admission is considered probationary because of prior academic history. It provides supplemental academic support to first or second year students who primarily need to complete general education requirements. Program services include orientation, personal advising, academic skills development courses, workshops and tutoring. Students are identified for the program by the admissions review committee, through the normal admissions process.

In order to be considered for the program, the student must:
- meet general high school graduation requirements or the equivalent;
- take the campus admission tests if required, and score above the 40th percentile on the SCAT and California Reading Test;
- demonstrate a disposition consistent with academic success;
- meet federal participation guidelines as a first generation and/or low income applicant;
- be recommended for the program after a personal interview with an EOP staff person.
Admission Status

The admissions review will determine the appropriate admission status — regular or probationary/conditional — for each applicant. Prospective students are likely to be offered direct admission if they have completed the 17 units of work outlined above and:

— class rank is in the upper 45 percent,

OR

— class rank is between the upper 46 percent and 50 percent, plus a composite ACT score is 23 or greater.

— (for schools that do not rank students) gpa is 2.75 or higher and ACT composite score is 23 or higher.

Students are likely to be placed on a waiting list for admission on a space-available basis if:

— class rank is between the upper 46 percent and 55 percent, and composite ACT is at least 20.

— (for schools that do not rank students) gpa is 2.5 or better, plus ACT composite score is 20 or higher.

These criteria may change depending upon enrollment targets and application volume.

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. Because of enrollment limitations, the University may not be able to accommodate all students who meet the minimum requirements published below. Students will be admitted directly or placed on a waiting list depending upon their academic record and time of application.

— Transfer and advanced standing students should have a minimum 2.0 grade point average (4.0 scale) on at least 15 credits of transferable coursework. (See definition of transferable coursework in section on information for transfer students.) A maximum of four semester credits in physical education may be used in calculating the grade point average for determining admissibility.

— Students with less than a 2.0 grade point average on transferable coursework may be considered for admission if they would have met UW-Green Bay freshman admission requirements, and if they would not have attained a suspension action had they earned the same academic record at UW-Green Bay.

Students are most likely to be offered direct admission if they have a transfer grade point average of 2.5 or better with at least 24 earned transfer credits.

Students may be placed on a waiting list for transfer admission if their grade point average is between 2.0 and 2.49 and they have not earned 24 transfer credits. (University of Wisconsin Center System students who have completed the associate degree with a minimum grade point average of 2.0 will be directly admitted.)

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 Programs of Study section of this catalog or the Online Academic Advising Guide at www.uwgb.edu/registrar/catalog.htm.

Application Procedures for Degree-Seeking Students

Application

Degree-seeking students applying to UW-Green Bay should submit the University of Wisconsin undergraduate application. This application is available through counseling offices of Wisconsin high schools, from the Office of Admissions at UW-Green Bay or any of the UW System campuses, or on the World Wide Web at apply.wisc.edu.

Transcripts

New freshmen 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 subjects 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 when such students graduate.

Transcripts may be sent by UPS to the Office of Admissions at UW-Green Bay. Changes on a transcript from what was originally reported (for example, dropped or failed classes or a drop in class rank) may alter the admission decision. A cancellation of admission may result, especially if there is a serious drop in class rank 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 and a partial transcript from any regular high school attended 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 schools attended since high school. Transfer students with fewer than 15 transferable credits or less than a 2.0 grade point average must also have a high school transcript sent directly to UW-Green Bay.

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.

Credits from Wisconsin Technical College System campuses may be accepted on a limited basis. Up to 15 credits of approved general education coursework may be accepted for transfer into UW-Green Bay. In addition, many nursing programs have articulation agreements for students entering the UW-Green Bay nursing completion program that may allow for transfer of additional credits.

Dates

Application dates for admission are tentative and may change depending upon enrollment capacities. Applications submitted after priority dates below will be considered if space permits.

— Fall Semester

   New freshmen: September 15 through February 1

   Transfer and reentry: September 15 through March 1

— Spring Semester

   All students: September 1 through December 15

— Summer Session

   New freshmen: September 15 through February 1

   Transfer and reentry: September 15 through March 1

Fee

A non-refundable $35 application fee is required of anyone applying for admission at a new freshman or as a transfer student from an institution outside the University of Wisconsin System. Applicants previously enrolled at a University of Wisconsin System school as nondegree-seeking students must also pay the application fee.
Placement Testing

English: ACT or SAT I Test Scores
Current official ACT or SAT I scores are required for:

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

Current test scores are scores from a test date not more than five years prior to the first day of classes for the term of enrollment.

ACT/SAT I test scores are used to provide a basis for course level placement in English composition, and to provide benchmark data for assessing verbal and quantitative skills developed by freshmen and sophomores. The test score policy also complies with University of Wisconsin System Regents policy and may be used by the Admissions Office to support a student’s admission to the University.

Mathematics: Wisconsin Mathematics Placement Test (WMPT)

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.

Current WMPT scores are scores from a test date not more than three years prior to the first day of classes for the term of enrollment.

The WMPT is scheduled throughout the state in April and May. Students not able to take a regional test may take one of the residual tests scheduled on campus near the start of each term. The test results determine the course level placement for mathematics courses. The test fee will normally be added to the student’s fee billing or paid at the time of test registration.

Information for Transfer Students

Credit Evaluation

Transfer students will receive an official credit evaluation to determine what courses and credits can be accepted to fulfill UW-Green Bay requirements. The accreditation status of the previous institution or institutions attended and the quality of a student's achievement are factors for determining course and credit transferability.

Credit evaluations will be started after all transcripts have arrived at UW-Green Bay and the student has been admitted. If a student is enrolled at another college when accepted at UW-Green Bay, a tentative evaluation will be completed and sent; the final evaluation will be held until a final transcript showing grades from the last term is received. Then the evaluation will be completed and mailed directly to the student.

General Education Requirements

A student who transfers to UW-Green Bay must satisfy general education requirements by completing or transferring courses which:

- satisfy English and mathematics competency requirements as determined by ACT/SAT I scores or other placement test scores.
- meet the breadth requirements of nine credits in the humanities, nine credits in the social sciences, three credits in the fine arts, and 10 to 12 credits in the natural sciences.
- fulfill the three-credit ethnic studies requirement.
- fulfill the three-credit other culture requirement, either by taking or transferring a course approved for this requirement or through another approved other culture experience.
- satisfy the writing emphasis requirement (3 to 12 credits, depending on the number of credits transferred). Writing emphasis courses are offered in most subject areas and may be used to simultaneously fulfill other general education, major, minor, and professional program requirements.

Transfer students will be informed in writing by the Registrar’s Office of their standing with respect to fulfilling general education requirements on the final credit evaluation. A description of these requirements is in the General Education Requirements section of this catalog.

Transferable Coursework

In order to be credited as transferable coursework, the course must be successfully completed at an accredited college or university. Also, each course must have a “D” grade or better in order to receive degree credit.

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.

Normally, a student must have graduated from high school at least two years prior to the semester for which he or she is seeking special student admission. Exceptions are described in the categories below.

A student who has been 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.

Because of enrollment limits, the number of courses which may be taken by special students may be limited.

Special student categories include:

Special (SPL): Students who have not previously earned a baccalaureate degree and are not currently pursuing a degree at UW-Green Bay, are classified as special, subject to the admissions standards mentioned above.

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

High School (HSO, HSP, HSS, YO)

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

High school special 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. UW-Green Bay credits earned by students before graduation from high school will be held in escrow.
Other Admission Information

Admit Students and Veterans

UW-Green Bay provides many opportunities for adults who have never pursued higher education and for those who interrupted their education to work, raise a family, or fulfill a military obligation. These opportunities can sometimes be provided for adults who do not meet all of the standard admission requirements.

Prospective adult students are urged to write or call the UW-Green Bay Admissions Office. The veteran's services coordinator can be reached in the Registrar's Office.

Teacher Preparation

Students who expect to seek teaching licensure should review the section on education in the Programs of Study segment of this catalog. The State of Wisconsin requires high school transcripts be on file for all students who earn teaching licenses. Therefore, transfer students and students who have already earned a degree will be asked to submit high school records.

A student who will earn teaching licensure for the first time should apply as a degree-seeking student. Only students who are renewing their licenses may apply and enroll as special students.

Educational Opportunity Program

A limited number of students who do not meet normal entrance requirements may be admitted to the University under the Educational Opportunity Program (EOP). Such students must show good potential for academic success. Early application is essential.

A primary goal of EOP is to assure that students admitted under the program as freshmen will be able to complete their sophomore, junior, and senior years.

Permanent Resident Non-Native English Speakers

Permanent resident applicants who qualify for admission but lack some English language proficiency may be required to take the English-as-a-Second-Language placement test to determine appropriate English course placement.

Information is available from the coordinator of International Student Services.

International Student Admission

UW-Green Bay annually enrolls students from about 30 countries and actively seeks the cultural diversification that international students contribute to the campus.

Admission for international students is based upon scholastic achievement, ability to use the English language, and ability to finance an education.

An international student must have a recognized certificate of completion from a secondary school and proof of being a very good student. Since all UW-Green Bay coursework is conducted in English, an applicant from abroad must take the Test of English as a Foreign Language (TOEFL), administered by the Educational Testing Service, Princeton, New Jersey. The test is given several times each year in nearly 118 major cities of the world. TOEFL information is usually available at American embassies and consulates, offices of the U.S. Information Service, U.S. educational commissions and foundations abroad, and other locations.

International students must be prepared to finance their educations. Only a limited number of partial tuition remission scholarships exist. In addition, it is difficult to gain permission from the U.S. Immigration and Naturalization Service to work off campus, so international students should not anticipate financing an education by income from employment.

UW-Green Bay has an office for international education and student services which issues the necessary Certificate of Eligibility (U.S. Department of Justice, Immigration and Naturalization Service, Form I-20) to admitted students.

Further information on international student admission is available in the brochure Information for International Students.

Admissions Appeals

A student who has been denied admission may appeal that decision by letter to the director of Admissions. An appeal committee meets as needed each semester. Students may contact the Office of Admissions for additional information.
FINANCIAL AID

Objectives
The primary objective of the Student Financial Aid Office is to ensure that no academically qualified student is denied an education for lack of financial resources. Financial assistance is available to students who have financial need. By completing the necessary applications, students are automatically considered for scholarships, grants, loans, or work-study for which they may qualify. The Financial Aid Office can provide detailed information about aid programs and scholarships.

Eligibility
In order to qualify for most aid programs funded by the federal or state government, a student must:
- be a U.S. citizen or an eligible non-citizen (permanent resident);
- be accepted for admission and enrolled in a program leading to a degree or certificate;
- have registered with Selective Service, if required to do so;
- not be in default on a previous student loan or owe a refund on a previous student aid grant;
- maintain satisfactory progress toward a degree as defined by the institution.

Application Procedures
Students should apply for financial aid as early as possible prior to their semester of enrollment. To apply for financial aid, a student must:
- submit the form Free Application for Federal Student Aid (FAFSA). The FAFSA form can be obtained from a high school guidance office or the Financial Aid Office at UW-Green Bay;
- complete and submit all requests for additional or clarifying information.

The priority date for applying for financial aid is April 15. The priority date is not a deadline; it is a date by which a student may reasonably expect to be considered for the maximum amount of financial aid available. The submission of a FAFSA is the only application needed to be considered for all federal and state grant programs, federal loan programs and need-based student employment. The FAFSA may be submitted before a student is admitted to the University. The student will receive a financial aid award after the admittance process is complete.

Determination of Need
A student's financial aid eligibility is determined from the information submitted on the FAFSA. Eligibility for specific funds is determined by federal and state guidelines, institutional awarding policies, and the balance of funds remaining at the time of the application review. Students who wish to report special circumstances should contact a campus financial aid adviser.

Aid Awards
Financial aid awards are determined and mailed to students on a weekly schedule beginning April 1. Most financial aid awards contain a combination of funding sources. Every effort is made to meet a student's full need as determined from information on the FAFSA.

Citizenship and Residency
All aid programs require United States citizenship or permanent residency with the exception of the International Student Scholarship. To be eligible for Wisconsin grants, students must be residents of the State of Wisconsin under Section 36.27 of the Wisconsin Statutes. Students are classified as residents or nonresidents at the time of admission to the University by the Office of the Registrar.

Disbursement of Financial Aid
Financial aid is awarded on an academic year basis. The aid is available to students at the Office of the Bursar. Financial aid funds must first be used to pay institutional charges. Contact the Bursar's Office for information about institutional charges and the dates that payments are due.

Cost of Education
The cost of education can be divided into direct educational costs and miscellaneous expenses. Direct educational costs include tuition and fees, books and supplies, University housing and University food plan. The following shows the typical semester costs for a full-time undergraduate student in 1999-2000.

| Tuition: Resident | $1,575 |
| Non-resident $5,607 |
| Minnesota resident $1,590 |
| Books and supplies: $300 |
| Housing: $1,100 |
| Food: $500 |
| Total: $3,475 |

Miscellaneous expenses include items such as transportation, clothing and personal expenses. These costs vary depending upon the spending habits of the student. For more specific information on costs, contact the Bursar's Office.

Financial Aid for Study Abroad Programs
Financial aid is available to students for approved study abroad programs. UW-Green Bay programs as well as programs sponsored by other institutions can be funded fully or in part through financial aid. Contact the Financial Aid Office for more information.

Types of Financial Aid
- Grants
  Grant aid is a form of gift aid. The award is based on a student's financial need as determined by the information provided on the FAFSA. Students do not need to apply for individual grant programs; the FAFSA is the only application that is needed. UW-Green Bay participates in the federally funded Pell Grant program and Supplemental Educational Opportunity Grant Program. Funding to students is also provided from all of the State and UW System grant programs available. Contact the Financial Aid Office for specific program information.
- Scholarships
  Scholarships are another form of gift assistance. They differ from need-based state and federal grants in that they are awarded based on a student's talents or achievements. UW-Green Bay offers a variety of scholarships ranging from our all-university Leadership and Academic Excellence Scholarship to departmental scholarships. The value of the scholarships range from $500 to $2,000 per year. Students may use the New Student Scholarship Application to apply for all scholarships available at UW-Green Bay. The application may be obtained from a high school guidance office, the Financial Aid Office, or www.uwgb.edu/financialaid/
Loans

UW-Green Bay offers all of the loan programs that are available to students from federal and state sources. A student's eligibility for each loan program is determined by the Financial Aid Office and reflected on the student's financial aid awards. A brief description of each loan program follows.

Federal Perkins Loan

The Federal Perkins Loan is administered and awarded by UW-Green Bay. The loan is a deferred interest, deferred payment program with the interest and payments starting nine months after the student leaves school. The current interest rate is five percent. The average loan amount awarded for 1999-2000 was $2,000.

Federal Stafford Student Loan

The Federal Stafford Student Loan is a federal loan program with a need-based component and a non-need-based component. The interest rate is variable, adjusted each July and capped at 8.25 percent. The difference between the need-based and non-need-based programs is the interest deferment. The need-based program has interest and payments deferred until six months after the student leaves school. The non-need-based program defers the principal repayment but the interest must be paid monthly, or quarterly, or have the interest added to the principle at the end of each year.

- Freshmen may receive up to $6,225 per year
- Sophomores may receive up to $5,500 per year
- Juniors and seniors may receive up to $5,000 per year
- Graduate students may receive up to $8,500 per year

Federal PLUS Loan

The Federal PLUS Loan program is provided for parents to assist with educational expenses. The Federal PLUS Loan does not have the interest and principle payment deferrals that exist with the Federal Stafford Student Loan program. Parents seeking more information about the Federal PLUS Loan program should contact a campus financial aid advisor.

Loan Counseling

Loan counseling is available to students at any time. All students who receive a Federal Stafford Student Loan or Federal Perkins Loan will be required to participate in an "entrance" loan information session before the aid check can be picked up. The notification and schedule of entrance sessions will be included with the student's financial aid award.

Students should assess their financial situation carefully before accepting a student loan. Options such as accepting an on-campus job may allow students to decline an offer of a student loan or decrease the amount needed. Advice on student loans may be obtained at any time by talking with an advisor in the UW-Green Bay Financial Aid Office.

Student Employment

Enrolled students may use the employment services of the UW-Green Bay Financial Aid Office. Students may apply for employment at any time during the year but they cannot be referred to job openings until they have registered for classes. On-campus student employment openings are generally categorized under two programs: college work-study and regular employment. Students employed on campus are paid bi-weekly and the payroll check is available at the Bursar's Office. The payroll check is made out directly to the student and is not applied to any type of University bill. The University also offers assistance in locating part-time employment off campus through the Job Location and Development Program.

Federal College Work-Study

As a part of the financial aid award, work-study is based upon financial need. Wages are paid by the employer and partly by the federal government. Once the student earns the allowable amount, employment must cease or be switched to regular part-time employment.

Regular Employment

All students may apply and be employed on campus as jobs are available. Jobs off campus are also listed on the bulletin board outside the Financial Aid Office.

Job Location and Development

The Job Location and Development program solicits and posts part-time job opportunities for all students from off-campus employers. Information about these jobs is posted and made available to students at the student employment service located in the Financial Aid Office.

Other Programs

Veterans Educational Assistance

The primary source of information for programs administered by the Veterans Administration or the Wisconsin Department of Veterans' Affairs is the veterans' service officer of the county from which the veteran departed for service, or where he/she now claims residence. The veteran may also seek assistance from the veterans' officer on campus.

Veterans should submit the certificate of eligibility to the Office of the Registrar for enrollment certification and transmittal to the Veterans Administration regional office. A special section on the final registration form must be completed to be certified for benefits for the ensuing term.

Minority Student Financial Aid Programs

UW-Green Bay offers several state and UW System programs that are targeted for minority students. They include the following:

- Lawton Undergraduate Minority Retention Grant
- Pilot Minority Tuition Award
- Minority Teacher Forgivable Loan
- Wisconsin Indian Grant
- Advanced Opportunity Grant (for minority graduate students)

In addition, programs such as the Talent Incentive Program prioritize minority status as part of the eligibility criteria.

It is not necessary to submit a separate application for the minority programs; the FAFSA will provide all of the required information. Contact an advisor in the Financial Aid Office for specific program information.

Additional Financial Aid Information

Refund/Repayment Schedule

Institutional refunds of tuition, housing and food plan payments as well as student repayment of financial aid received are mandated by federal and state regulations. Contact the Bursar or Financial Aid Office for complete information.

Standards of Academic Progress

Standards of academic progress for financial aid recipients is a measurement of progress required by federal financial aid regulations. Contact the Financial Aid Office for specific information.

Refer to www.uwgb.edu/financialaid/ for a complete review of financial aid policies.
Definitions

Audit Enrollment — If enrollment capacities permit, a student may audit a course if space is available after students enrolled for credit are accommodated. Special policies apply to reduced-fee auditors and disabled guest students. These policies are published in the Timetable for each term.

Credit — a quantitative unit used to measure effort devoted to reading, discussion, lecture, and other activities associated with the learning process. In theory, earning one credit requires a minimum of 15 hours of classroom time and an additional 30 hours of out-of-classroom effort. An average student carrying a 15-credit semester load should expect to commit at least 45 hours per week to class attendance, study, and preparation.

Credit Load — the total credits a student is carrying as a program at a given time in a term, for example, at registration or at the end of the semester. All credits, regardless of grading status, count toward credit load for certain purposes.

Maximum Credit Load — a specific limitation of the number of credits a student may carry at any time during a term. A student in good standing may register for up to 16 credits per semester, however, all students are restricted from registering for more than 16 credits until the first week of classes (graduating seniors may register for 16 credits the week before classes begin). A student is not allowed to register for credits in excess of 16 without written permission from the provost’s designee. This written permission must be gained before the first day of classes. Normally, only honors students are considered for credit overload. A student on academic probation with a cumulative grade point average of 2.0 or better is limited to a maximum of 15 credits; a student on academic probation with a 2.0 or better grade point average is limited to four courses or 13 credits, whichever is greater.

Minimum Credit Load — a specific minimum number of credits (excluding audit credits) that a student must carry to be eligible for a variety of 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. Standards of progress for probation and academic suspension status purposes may be affected.

Attempted or Grade Point Credits — the number of credits taken for a grade that will affect the grade point average. Some attempted credits may not count toward degree credits.

Some physical education courses, for example, may not result in degree credit and do not affect the grade point average.

Degree Credits — those credits that count toward the 120 credits required for a bachelor’s degree. Certain courses in physical education and all academic support courses do not result in degree credit even though they may have a credit value assigned for measuring credit load for some purposes. Some physical education credits may be held in escrow and added to the total earned credits at graduation.

Escrow Credits — up to four physical education credits may be applied toward a baccalaureate degree (2 credits for an associate degree). Due to the complexity of the physical education policy, these credits are not included in the computation of attempted and degree credits until the time of graduation. That is, physical education credits are held in “escrow” for students until graduation.

Completed Credits — the number of credits (excluding audit credits) for which a final grade is received. Pass no-credit credits passed, degree credits, and attempted credits are included. Temporary grades of F or N are excluded.

Audited Credits — credits for courses in which a student chooses to enroll as an auditor. These credits are counted for maximum credit load and fee assessment, but they are of no significance for any other purposes, such as graduation or grade point average. Enrollment as an auditor is subject to special conditions.

P-NC Credits — pass no-credit is a specific grading option. These credits have no effect on grade point average, but, if passed, may add to the degree credits earned. Students complete a special request form to elect P-NC grading.

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 basis. P-NC, incomplete, and audit grades and 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. However, transfer grades may be used to compute eligibility for admission to certain majors.

Example of gpa for a semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Grade</th>
<th>Credits</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art 105</td>
<td>A</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Math 104</td>
<td>BC</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>German 102</td>
<td>C</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>English 093</td>
<td>P</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>(student support services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

(An A is equal to 4 grade points, a B is equal to 3, and so forth. These credits earning an A grade equals 12 points.)

30 divided by 11 equals 2.72 grade point average

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.

Probation — an advisory warning status assigned to a student who shows lack of academic progress as measured by successfully completed credits or for inadequate performance as measured by grade point average. Probation is an advisory warning that improved performance is necessary to continue as a student.

Academic Suspension — a status assigned when a student’s record of academic progress and/or achievement is unacceptable. Suspended students are not permitted to continue to enroll at the University.

Good Standing — a status assigned when a student is making adequate academic progress and his or her cumulative grade point average is 2.0 or better.

Class Standing

Class standing is determined by the number of earned credits a student has completed. 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
**Academic Standing**

Every student is expected to maintain certain standards of academic achievement in all work carried at the University. Standards are described in terms of quality of work as measured by the proportion of the attempted credit load completed each semester.

Certain exceptions are allowed for part-time students, but unless otherwise stated, part-time students are expected to meet the same academic achievement standards as any other student.

Academic standings are reviewed at the end of each term. A revised standing is reported to every student on the final grade report issued after each term.

**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.

A student who elects to take courses on a pass/no-credit basis should be aware of certain restrictions. See the special entry on P/NC grading that appears later in this section.

Since grading standards differ from institution to institution, grades received from other institutions are not used in computing grade point averages. However, transfer grades may be used to compute eligibility for admission to certain programs.

**Probation and Academic Suspension**

The University is concerned about students whose academic achievements indicate that they are unable to meet expectations of their instructors or that they are experiencing other problems that may interfere with their studies. A probation action is an advisory warning that a student should take action to improve his or her achievement. An academic suspension action is taken when the University feels that the student’s academic achievement record to date indicates a need to interrupt enrolled status to reassess and reevaluate goals and plans.

A student who is placed on probation or academic suspension should give careful consideration to factors involved. The University encourages such students to seek assistance from counselors, advisers, and instructors. It also provides help through various testing services and study skills development programs.

Every student is expected to maintain at least a C average (2.0 cumulative grade point average) on all work carried. Failure to achieve a C average in any term will result in probation, continued probation, or academic suspension action at the end of that term.

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**Letter Grade**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Point Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (excellent)</td>
<td>4.0</td>
</tr>
<tr>
<td>AB (very good)</td>
<td>3.6</td>
</tr>
<tr>
<td>B (good)</td>
<td>3.0</td>
</tr>
<tr>
<td>BC (above average)</td>
<td>2.5</td>
</tr>
<tr>
<td>C (average)</td>
<td>2.0</td>
</tr>
<tr>
<td>D (poor)</td>
<td>1.0</td>
</tr>
<tr>
<td>F (unacceptable)</td>
<td>0.0</td>
</tr>
<tr>
<td>WF (unofficial withdrawal)</td>
<td>0.0</td>
</tr>
<tr>
<td>P (a &quot;C&quot; grade or better for undergraduate courses)</td>
<td>No effect</td>
</tr>
<tr>
<td>NC (no credit; letter grade of less than &quot;C&quot;)</td>
<td>No effect</td>
</tr>
<tr>
<td>U (unsatisfactory audit)</td>
<td>No effect</td>
</tr>
<tr>
<td>S (satisfactory audit)</td>
<td>No effect</td>
</tr>
<tr>
<td>N (no acceptable report from instructor)</td>
<td>No effect until an acceptable grade is submitted.</td>
</tr>
<tr>
<td>I (incomplete, temporary grade)</td>
<td>No effect until removed.</td>
</tr>
<tr>
<td>DR (Dropped course)</td>
<td>No effect</td>
</tr>
<tr>
<td>W (Withdrawn)</td>
<td>No effect</td>
</tr>
</tbody>
</table>

---

**For a Student in Good Standing**

**Grade Point Requirement and Action**

- 1.0 to 1.99 end of semester or term cumulative gpa results in probation
- 0.999 or less of semester cumulative gpa results in an academic suspension status
- action on part-time students is withheld until they have attempted at least 12 credits at UW-Green Bay

**Credit Completion Requirement and Action**

<table>
<thead>
<tr>
<th>original credit load*</th>
<th>credits successfully completed</th>
<th>status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 or more</td>
<td>8 or less</td>
<td>probation</td>
</tr>
<tr>
<td>9-11</td>
<td>5 or less</td>
<td>probation</td>
</tr>
<tr>
<td>6-8</td>
<td>2 or less</td>
<td>probation</td>
</tr>
</tbody>
</table>

*Original credit load is determined as the number of credits a student is enrolled in at the time of the course add deadline, which is usually the end of the second week of the semester.

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**For a Student on Probation**

**Grade Point Requirement and Action**

- 1.50 to 1.99 end of semester or term cumulative gpa results in continued probation for one term
- 1.49 or less of semester cumulative gpa results in a suspension status
- 2.0 or better end of semester or term gpa and a 2.0 cumulative gpa results in a return to good standing

**Credit Completion Requirement and Action**

<table>
<thead>
<tr>
<th>original credit load*</th>
<th>credits successfully completed</th>
<th>status</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 or more</td>
<td>8 or less</td>
<td>academic suspension</td>
</tr>
<tr>
<td>9-11</td>
<td>5 or less</td>
<td>academic suspension</td>
</tr>
<tr>
<td>6-8</td>
<td>2 or less</td>
<td>academic suspension</td>
</tr>
<tr>
<td>12 or more</td>
<td>9-11</td>
<td>continued probation</td>
</tr>
<tr>
<td>6-8</td>
<td>6-8</td>
<td>continued probation</td>
</tr>
<tr>
<td>12 or more</td>
<td>12 or more</td>
<td>return to good standing</td>
</tr>
<tr>
<td>9-11</td>
<td>9-11</td>
<td>if cumulative gpa is 2.0</td>
</tr>
</tbody>
</table>

*Original credit load is determined as the number of credits a student is enrolled in at the time of the course add deadline, which is usually the end of the second week of the semester.

---

**For a Student on Continued Probation**

**Grade Point Requirement and Action**

- less than 2.0 cumulative gpa results in an academic suspension status
- 2.0 or better end of semester or term gpa and a 2.0 cumulative gpa results in a return to good standing

**Credit Completion Requirements and Action**

- same as for a student on probation
Each student is expected to complete a certain portion of the credits for which he or she originally enrolled. Failure to meet this standard in a given semester will result in a status of probation, continued probation, or academic suspension. Students complete a course by earning a grade of A, AB, B, BC, C, D, F, WF, P, or NC. This excludes previously passed courses which are being retaken voluntarily.

A student on probation may return to good standing by fulfilling certain requirements. The tables show the two measures of achievement—grade point average and completed credits—and actions that result from failure to meet them.

Students who enroll for an original credit load of fewer than six credits are exempt from completion requirements. Original credit load is determined as the number of credits a student is enrolled in at the time of the course add deadline, which is usually the end of the second week of the semester. A student may drop at least one course from his or her original credit load without incurring an academic suspension or probation status. For example, a student enrolled for an original credit load of 12 credits could drop five-credit course without incurring a probation or academic suspension.

Academic suspension status is assigned for a period of one semester for the first suspension. If a student is suspended for a second time, the status is for two semesters. Students who are suspended must apply for readmission to the University if they want to return. Such readmission may be granted or denied.

A student who is suspended at the end of the spring semester may enroll in the summer session with the understanding that he or she is not eligible to continue for the fall semester unless achievements during the summer session result in a return to good standing or continued probation.

Conditional matriculant (CM) students must meet special contractual requirements specified at the time of admission. When a CM student is removed from the status, he or she must then meet all normal requirements. The admission review committee makes determination for academic suspension action or continued conditional matriculant status for students enrolled in that classification.

**Appeals**

Academic probation is an advisory warning and is not subject to an appeal. Academic suspension status may be appealed to the provost's designee. Appeals must be filed within seven working days from the date printed on the grade slip or student record report. A student who is allowed to continue as a result of an appeal is on continued probation 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 problems that resulted in inadequate achievement and a statement explaining how the student proposes to resolve these problems.

Students planning 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 the instructor(s) included, if this is appropriate?

**Readmission**

Readmission to the University after an academic suspension is not an automatic process. The Office of Admissions may deny or grant readmission subject to specific requirements or conditions. A student who is readmitted after an academic suspension is always reactivated on probation and is subject to normal standards of progress and achievement. An application for readmission should be submitted to the director of admissions well in advance of the beginning of registration for the desired term of admission.

**Grades**

Grades will be mailed at the end of each term to the home or permanent address of record.

Students may choose to have all mailings sent to a single address. This option must be indicated on an address correction form supplied by the office of the Registrar.

Mail forwarding is a student's responsibility. Written notice of a change of address to all mailers is also a student's responsibility.

**Grades and Grade Appeal**

Each student receives a grade from the instructor of a course at the end of a semester or session. Instructors must forward grades to the Registrar's Office no later than 96 hours after the final examination.

If a student is dissatisfied or wishes to appeal a particular course grade, he or she 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. The dean or chairperson acts in an advisory capacity to the student and the instructor.

**Grade Changes**

All final grades—except for incompletes (I)—become permanent grades after the last day of classes for the next semester. Any discussions with faculty regarding grade levels or missing (N) grades must be pursued within this time period.

**Grade Changes for Graduating Seniors**

Grades for graduating students become permanent and unchangeable for any reason after a period of 15 working days following the end of a semester or summer session.

**Incompletes**

If a student is unable to take or complete a final examination or other course work due to unusual but acceptable circumstances, he or she may arrange with the instructor to receive an incomplete. The instructor files an incomplete removal form, stating both the conditions for removal and the deadline, before an incomplete grade is accepted for recording. A tentative academic action may be assigned on the basis of grades and credits received in other courses. Tentative actions are reviewed after the incomplete has been converted into a permanent grade.

**Incompletes for Graduating Seniors**

Students expecting to graduate in December (fall) or May (spring) must have all incompletes removed within 15 working days following the end of the respective term of graduation. August graduates have 10 working days to remove incompletes following the end of the summer session.

**Removal of Incompletes**

The course instructor sets a specific deadline for removal of an incomplete and informs the student and the Office of the Registrar. If an earlier deadline is specified, an incomplete (I) must be removed no later than the last day of classes during the next semester.

The incomplete removal form is filed with two tentative grades. One indicates the quality of work to date; the second is to be assigned if no more work is completed.

A student may file a special petition for an exception to the incomplete removal deadline if bona fide·miscarriage or extenuating circumstances prevented compliance with the removal deadline. These circumstances might be valid:

- The student has serious physical or mental health problems which are documented by statements from a physician or professional counselor.
- The student has had a death or serious illness in the immediate family and this is documented by a physician's statement.
- The course instructor is on leave during the semester for removal.
Repeating Courses

Most courses may be repeated. Repeated courses are designated with a letter R after the course title on the transcript. When a repeated course is complete, the original grade and entry on the transcript remain. However, the credits, grade, and grade points earned for the most recent completion are used to calculate cumulative attempted credits, grade points earned, and grade point average. Courses repeated at another institution have no effect on grade point average at UW-Green Bay.

Repeated courses do not count toward fulfilling standards of progress requirements or for probation and academic suspension status purposes unless the previous grade was NC, F, WF, S, or U.

The University does not guarantee the right to retake any course. Courses may be disabled, discontinued, or offered on a different schedule. A course repeat card should be filed with the Office of the Registrar to ensure a recalculatio of the grade point average is complete.

Course Prerequisites

Prerequisites are included in the course descriptions section of this catalog and are also included in the Timetables and on STARK, the computerized registration, advising, and degree audit system. Prerequisites are indicated by the designation P. Prerequisites indicate the minimum level of proficiency or background knowledge needed to successfully achieve course objectives.

Exceptions to prerequisites may be made by the course instructor or the instructional unit chairperson. Students who do not meet prerequisites are responsible for seeking approval for exceptions before enrolling in a course. Students who do not observe prerequisites will be dropped from the course without prior notice.

Recommended Prior Courses

Recommended prior courses are indicated in the course descriptions by the designation REC. Recommended courses are basically advisory and are usually lower-level courses. Students who have the knowledge or skill required for a course may enroll without completing prior or recommended courses, but they do so at their own risk. Students cannot expect a course instructor to hold back the progress of a class for those who have not taken the recommended prior courses. If students misjudge their ability to take a course without the recommended prior courses, they may get a much lower grade than they would wish. They also run the risk of feeling compelled to drop the course, thereby losing tuition and book and materials costs.

Auditions

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

Class Attendance

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

Course Adds and Drops

Course Adds

Once enrolled, students may add other courses to their programs if such additions do not exceed the maximum credit load limitation and if such additions are completed before a specific deadline. During a normal semester the add period is limited to the first two weeks of classes. For shorter terms, an earlier deadline is in effect. A student may petition for an exception if unforeseeable extenuating circumstances prevented deadline compliance.

Course Drops

The course drop deadline is established to give students ample opportunity to discover what content a course will cover, the type of readings and projects to be assigned, the instructor’s teaching style, and the methods of evaluation. In some courses, feedback from a formal evaluation process may not be available before the drop deadline. In such cases, it is the student’s responsibility to contact the instructor before the drop deadline to obtain information useful in making the drop decision.

The phases of the course drop policy are:

Through the third day of the second week of a 15-week semester —
- student may drop any course without the instructor’s signature
- permanent records show no drop

Fourth day of the second week through sixth week —
- student may drop any course without the instructor’s signature
- course appears on permanent records with the symbol W (withdrew) or DR (dropped)

Seventh through 15th weeks —
- no official drops allowed. WF grade or F appears on transcript

See the Timetable for terms or classes of a shorter duration than 15 weeks, showing established prorata deadlines. A course week or weeks ends on a Friday. All courses beginning or ending on nonstandard session weeks have a nonstandard drop deadline.

Withdrawal from the University

A student who desires to withdraw from all academic course work at any time after completing registration must file an official withdrawal with the Office of the Registrar. A complete withdrawal without failure may be requested at any time before 4:30 p.m. on the afternoon of the last day of regularly scheduled classes during the 12th week of a semester or the fourth week of an six-week summer session. If a student has not attended classes or taken the final examination in a course, a grade of WF (unofficial withdrawal) is given unless official withdrawal procedures are followed.

A decision to withdraw should be given careful consideration in terms of academic retention and probation policy, veteran’s benefits, athletic eligibility, financial aid, family health insurance coverage, student loan repayment deferral, and other situations which have specific consequences from withdrawal. A student who withdraws from two consecutive semesters must seek readmission to the University to enroll again.

Withdrawal from the eighth day of classes through the 12th week of a semester results in permanent recording of all courses of record at that time with a symbol of W (withdrew) after each course. The W is not a grade and has no effect on grade point average.

Students should be aware that if they withdraw after the end of the second week of a semester, it does count as a semester of enrollment for academic progress standards and does result in a probation action. If a student can provide evidence that withdrawal is necessary due to unforeseeable extenuating circumstances, he or she may be allowed to withdraw without a probation action if the evidence is provided at the time of withdrawal.

Withdrawal by a student with an original credit load of less than six credits does not result in a probation or academic suspension action.

Late Program Changes and Withdrawals

Students may receive permission to drop courses after the six-week deadline, or make a complete withdrawal after the normal 12-week deadline, if one of these criteria can be verified:
- the student has serious mental or physical health problems verified by statement from a physician or professional counselor;
- there is a death or prolonged serious illness in the immediate family, also verified by the family physician.

A written appeal with appropriate documentation should be submitted. If a student has any other reason for requesting a late drop or withdrawal, he/she should complete a written appeal stating the circumstances. In both cases the written appeal should be directed to the program’s director.
Pass-No Credit Enrollment

Students may choose the pass-no credit (P-NC) grading option if they do not want a regular grade in a course that would affect their grade point average. The decision to take a course on a P-NC basis must be made within the first two weeks of a semester or the first week of a six-week summer session. The P-NC request form must be filed in the Office of the Registrar. Some courses may not be selected on a pass-no credit basis if they are taken to fulfill certain requirements. These 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.)
- senior honors (484) projects and/or distinction in the major (478) projects
- independent study (298-498) courses
- Electives may be taken on a P-NC basis.

For pass-no credit, grades of A, AB, B, BC, or C are designated “pass.” Grades of D, F or WF are designated 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.

Independent and Internship Study

Regular semester add and drop deadlines apply to independent and internship study.

Students may receive credit for independent study under the course numbers 298 for lower-level work or 498 for upper-level work. Enrollment may be for one to four credits per course.

To arrange for an independent study, a student should find an instructor who will support the study. The student must prepare a statement of objectives and a list of readings and/or research projects that will fulfill the objectives. The proposal must be described on a form available for this purpose. This written proposal, approved by the instructor and budgetary chair, must be filed in the Office of the Registrar at the time of registration or course addition.

Independent study courses are subject to these limitations:

- independent studies cannot duplicate a regular UW-Green Bay course; independent study is intended to expand the curriculum.
- A freshman or sophomore must have a minimum cumulative grade point average of 2.5 and a junior or senior must have a minimum of 2.0 to do independent study.
- Independent study cannot be elected on audit or pass-no credit basis.
- Independent study may be taken only with a regular member of the UW-Green Bay faculty or academic staff.

Honors

Senior distinction in the major projects and senior honors projects should be planned during the junior year. Students should enroll for honors 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 plan with sponsoring faculty during the junior year to determine that possible special needs for library resources, equipment, supplies, or field research will be available. Distinction projects must be completed by the end of the sixth week of the semester of graduation (or be certified by sponsoring faculty that the course will be finished before the end of the semester).

Regular semester add and drop deadlines apply to distinction in the major projects. No P-NC grading is permitted.

Students whose grade point average qualifies them for graduation with honors the semester before they graduate will be recognized at the commencement ceremony.

Senior Distinction in the Major (478 course number)

Senior distinction in the major is different from all-university honors. Some students may be eligible for both recognitions of excellence. A project for distinction in the major must be separate from any project for summa cum laude honors.

To be eligible for senior distinction in the major, a student must:

- have a minimum 3.50 GPA for all courses required for the major, as indicated on the Student-degree Tracking Audit Report (STAR);
- have a minimum 3.75 GPA for all upper-level courses required for the major, as indicated on the Student-degree Tracking Audit Report (STAR);
- complete a senior distinction project in the major.

Graduation or Degree Honors

Students whose grade point average qualifies them for graduation with honors the semester before they graduate will be recognized at the commencement ceremony. Honors designations on transcripts will be based upon the student’s complete academic record. Honors requirements for students who earn baccalaureate degrees are:

- cum laude designation requires a cumulative grade point average from 3.5 to 3.749;
- magna cum laude designation requires a cumulative grade point average of 3.75 or higher;
- summa cum laude designation requires a cumulative grade point average of 3.75 or higher and successful completion of a senior honors project (484 course number) in an interdisciplinary program (major or minor).

The cumulative grade point average must be achieved on the basis of:

- a minimum of 60 regularly graded (not P-NC or audit) credits taken in residence at UW-Green Bay; or
- a minimum of 105 regularly graded (not P-NC or audit) credits taken in residence at UW-Green Bay/UW-Colleges with an associate degree earned at UW-Colleges and a minimum 3.50 earned grade point average at each institution. Honors will be based on the UW-Green Bay grade point average.
DIRECTORY

Full-time, Permanent Faculty and Other Teaching Staff

Abbott, Clifford F., Professor of Information and Computing Science (linguistics); B.A., Tufts; M.A., Ph.D., Yale.

Adsit, Theresa E., Lecturer of Natural and Applied Sciences (mathematics); B.S., Evangel College; M.S., UW-Milwaukee.

Aldrete, Greg S., Assistant Professor of Humanistic Studies (history); A.B., Princeton; A.M., Ph.D., Michigan.

Alesch, Daniel J., Professor of Public and Environmental Affairs (political science); B.S., M.S., UW-Madison; M.A., Ph.D., UC-Los Angeles.

Ament, Elizabeth, Assistant Professor of Communication and the Arts (art and education); B.F.A., Kent State; M.A.T., National-Louis; Ph.D., Ohio State.


Austin, Andrew W., Assistant Professor of Social Change and Development; B.S., M.A., Middle Tennessee State.

Baba, Ronald K., Associate Professor of Urban and Regional Affairs (environmental design); B.A., M.A., Southern California; Ph.D., Texas.

Bauer-Dantoin, Angela C., Assistant Professor of Human Biology (biology and women's studies); B.A., Lawrence; Ph.D., Northwestern.

Baulien, Forrest B., Associate Professor of Information and Computing Science (computer science); B.S., Manhattan; M.S., Ph.D., Massachusetts-Amherst.

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### INDEX

#### A
- Abbreviations, 97
- Academic advice, 23
- Academic advising, 15
- Academic calendar, 160
- Academic program, 21
- Academic rules and regulations, 145
- Academic standing, 146
- Academic support, 13
- Academic suspension, 145
- Accounting, 24, 99
- Accreditation, 3
- Activities, 14
- Administration, 3
- Admission, 139
  - ACT scores, 10, 141
  - adult students, 142
  - appeals, 142
  - application procedures, 140, 142
  - dates, 140
  - Educational Opportunity Program, 139
  - enrollment limitations, 139
  - general policy, 139
  - home schooled applicants, 139
  - international students, 142
  - nonnative English speakers, 142
  - freshmen, 139
  - transfer, 140
  - special students, 141
  - status, 140
  - veterans, 142
- Advanced Placement Program Credit, 10
- Advising/Career Counseling, 15
- American College Testing (ACT) Program, 16, 19, 141
- American Indian Studies, 25
- American Intercultural Center, 13
- American Social Issues emphasis, See Social Change and Development.
- Animal Biology emphasis, See Biology. Anthropology, 26, 100
- Applied Music, 126
- Architecture, preprofessional program, 88
  - Area Studies emphasis, See Urban and Regional Studies.
- Areas of emphasis, 5, 23
- Art, 26, 100
- Art Education emphasis, See Art. Associate of Arts and Sciences (A.A.S.) degree, 3, 23
- Audit enrollment, 145, 148

#### B
- Bachelor of Arts (B.A.) degree, 3
- Bachelor of Interdisciplinary Studies degree, 3, 63
- Bachelor of Music (B.M.) degree, 3, 67
- Bachelor of Science (B.S.) degree, 3
- Bachelor of Science in Nursing (B.S.N.) degree, 3, 70
- Bachelor of Social Work (B.S.W.) degree, 3, 79
- Biodiversity, Center for, 10
- Biology, 29, 101
- Bookstore, Phoenix 13
- Breadth requirement, 17
- Business Administration, 30, 102

#### C
- Campus, 12
- Campus housing, 12
- Career Planning, Placement 15
- Cell/Molecular Biology emphasis, See Biology.
- Chemistry, 32, 104
- Chiropractic, preprofessional program, 88
- Class standing, 145
- Clubs and organizations, 14
- Coaching certification, 72
- Cofrin Memorial Arboratum, 10
- College Level Examination Program (CLEP), See Credit by examination.
- Communication and the Arts, 33, 106
- Communication Arts emphasis, See Communication and the Arts.
- Communication Processes, 36, 107
- Community and region, 12
- Community Economic Development emphasis, See Urban and Regional Studies.
- Community Sciences, 108
- Computer Science, 39, 109
- Computing facilities, 10
- Continuing Education, 15
- Cooperative program/Engineering, 23, 46
- Costs, 143
- Counseling, preprofessional program, 89
  - student, 13
  - Course adds and drops, 148
  - Course descriptions, 97
  - Course periodicity, 97
  - Course prerequisites, 98, 148
  - Courses, repeating, 148
  - Creative Writing emphasis, See English.
  - Credit alternatives, 10
  - Credit by examination, 10
  - Credit evaluation, 141
  - Credit for prior learning, 10
  - Credit loads, 145

#### Credits
- audited, 145
- degree, 145
- micro, 145
- Cross-listed courses, 98
- Cybertechnology emphasis. See Human Biology.

#### D
- Dance emphasis. See Theatre.
- Data, Video and Voice Network, 11
- Dean of Students, 13
- Degree, components of, 21
- Degrees,
  - Associate of Arts and Sciences, 3, 23
  - Bachelor of Arts, 3
  - Bachelor of Interdisciplinary Studies, 3, 63
  - Bachelor of Music, 3, 67
  - Bachelor of Science, 3
  - Bachelor of Science Nursing, 3, 70
  - Bachelor of Social Work, 3, 79
  - Master of Science degree in Administrative Science, 3
  - Master of Science degree in Applied Leadership for Teaching and Learning, 3
  - Master of Science degree in Environmental Science and Policy, 3
- Dentistry, preprofessional program, 89
- Design/Technical Theatre emphasis. See Theatre.
- Dining services, 12
- Directory, faculty and staff, 150
- Disabilities, services for students with, 13
- Disciplinary majors and minors, 5, 22

#### E
- Earth Science, 40, 109
- Ecology and Biological Resources
  - Management emphasis. See Environmental Science.
- Economics, 41, 110
- Education, 42, 110
  - early childhood/elementary level, 45
  - elementary and elementary/medium level, 45
  - secondary or middle/secondary level, 45
- Educational Opportunity Program, 139, 142
- Educational Support Services, 12
- Edward W. Weidner Center for the Performing Arts. See Weidner Center for the Performing Arts.
- Electronic Media emphasis. See Communication Processes.
- Engineering, 46, 114
  - Dual Degree Program, 46
  - preprofessional program, 90
Grading system, 146
grade point average, 145
grade point values, 146
pass-no credit, 145, 149
Graduate degrees, 3
Graduation or degree honors, 149
Grants. See Financial Aid; grants.
Graphic Communications emphasis. See
Communication and the Arts.
Guiding Principles, 6

H
Health professions. See Nursing. See also
Preprofessional Programs.
Health Science emphasis. See Human
Biological.
Health Services, 12
Herbarium, 11
History, 55, 118
Honors, 149
Honors project, 10, 98, 149
Housing, 12
Human Biology, 56, 120
Human Biology/General emphasis. See
Human Biology.
Human Development, 58, 121
Humanistic Studies, 60, 121

I
Incompletes, 147
Independent study, 15, 98, 149
Individual Major, 15, 61
Information Center/Main Desk, 13
Information Sciences, 62, 123
Institute for Learning Partnership, 15
Intercollegiate athletics, 14
Interdisciplinary education, 5, 9
Interdisciplinary majors and minors, 4, 23
Interdisciplinary Studies, 63, 125
International education, 9
International exchange, 9
International Student Center, 13
International Studies certificate program, 64
Internships, 15, 98, 149
Intramurals/recreation/athletics, 14

J
Jazz Studies emphasis. See Music.
Journalism emphasis. See Communication
Processes.

L
Law and Social Change emphasis. See
Social Change and Development.
Law, preprofessional program, 91
Library, 6, 91
Linguistics/Teaching English as a Second
Language emphasis. See Communication
Processes.
Literature emphasis. See English.

M
Major areas of study, 5, 9
Majors, 5, 21, 22, 23
Management emphasis. See Business
Administration.
Marketing emphasis. See Business
Administration.
Master of Science degree in Applied
Leadership for Teaching and Learning, 3
Master of Science degree in Environmental
Science and Policy, 3
Master of Science degree in Administrative
Science, 3
Master’s degrees, cooperative programs, 3
Mathematics, 52, 123
Mathematics emphasis. See Mathematics.
Medicine, preprofessional program, 92
Military Science, 66, 125
Minors, 5, 9, 21, 22, 23
Mortuary Science, preprofessional
program, 92
Music, 67, 125
Music Education emphasis. See Music.
Music groups, 14
Music History/Literature emphasis. See
Music.
Musical Theatre emphasis. See Theatre.

N
National Student Exchange, 9
Noncredit courses. See Continuing
Education.
Northeastern Wisconsin (NEW)
Engineering Program, 46
Nursing, 70, 126, 127
preprofessional program, 93
Nutritional Science/Dietetics emphasis. See
Human Biology.
Nutritional Sciences/Dietetics courses, 127

O
Occupational Therapy, preprofessional
program, 93
Optometry, preprofessional program, 94
Organizational Communication
emphasis. See Communication Processes.
Other culture requirement, 18

P
Pass-no credit grading, 149
Passport accounts, 12
Performance emphasis. See Music. See
also Theatre.
Pharmacy, preprofessional program, 94
Philosophy, 71, 128
Phoenix Sports Center, 14
Photography emphasis. See
Communication Processes.
Physical Education, 72, 129
Physical Systems: Technology and Management emphasis. See Environmental Science.

Physical Therapy, preprofessional program. 95
Physician Assistant, preprofessional program. 95
Placement testing, 19, 141 Planning emphasis. See Environmental Policy and Planning.
Plant Biology emphasis. See Biology. Political Science, 74, 130
Preprofessional programs, 23, 88 Prerequisites, 94, 148
Probation, 145
Problem solving, focus on 9 Programs of study, 22, 24 Psychology, 75, 131
Public Administration, 76
Public and Environmental Affairs, 132
Public Policy emphasis. See Environmental Policy and Planning.
Public Relations emphasis. See Communication Processes.
Public safety, 13

R
Requirements, 135–142
admission, 139–142
General education. See General education requirements.
Research, 15
Residency requirement, 21
Retail services, 13
Retroactive credit, 10
Richiter Natural History Museum, 11
ROTC. See Military Science.

S
Safety. See Public safety.
Secondary or middle/secondary level education. See Education.
Senior Assessment Program, 20
Senior distinction in the major, 98, 149
Social Change and Development, 77, 133
Social Work, 79, 134
Sociology, 80, 134
Sophomore Assessment Program, 20
Spanish, 81, 135
Special students, 141
Staff, 141
academic, 154
faculty and other teaching, 150
Statistics emphasis. See Mathematics.
Student employment, 12
Student government, 14
Student ID and debit card, 12
Student-led courses, 98
Student performers, 14
Student Support Services 13
Student Support Services courses, 135
Students, 2
Studio Art emphasis. See Art.
Study-abroad programs, 9
Suspension, academic, 146

T
Teacher preparation. See Education.
Teaching English as a Second Language emphasis. See Communication Processes.
The Green Bay Idea, 2, 6, 9
The Student Experience, 8
Theatre, 82, 136
Theatre Studies emphasis. See Theatre.
Theology, preprofessional program, 96
Timetables, 98
Transcripts, 140
Transfer students, 140
credit transfer, 141
requirements, 141
Transferable course work, 141
Transportation, 12
Travel courses, 9
TRIO programs, 13

U
University directory, 150
University of Wisconsin Board of Regents 3
University testing requirements, 19
University Theatre, 11, 14
University Union, 11, 13
Urban and Regional Planning emphasis. See Urban and Regional Studies.
Urban and Regional Studies, 85, 138
UW-Green Bay, 85
accreditation, 3
administration, 3
campus, 3
faculty, 150
staff, 154
students, 2

V
Veterans educational assistance, 144
Veterinary Medicine, preprofessional program, 96

W
Weidner Center for the Performing Arts, 14
Wisconsin Mathematics Placement Test, 20, 141
Withdrawal from the University, 148
Women's Studies, 87
Women's Studies emphasis. See Social Change and Development.
Work-study, 144
Writing requirement, 16
Writing competency, 16
Writing emphasis, 16
## ACADEMIC CALENDAR

The University operates on a traditional semester calendar with a four-week spring intersession followed by a six-week summer session. During summer, a few courses may deviate from the six-week schedule.

### Fall Semester 2000-2001
- **Classes begin**: Sept. 5
- **Thanksgiving recess begins**: Nov. 23
- **Classes resume**: Nov. 27
- **Classes end**: Dec. 15
- **Study and advising days**: none
- **Examinations begin**: Dec. 18
- **Commencement (Saturday)**: Dec. 16
- **Examinations end**: Dec. 22

### Spring Semester 2001-2002
- **Classes begin**: Jan. 16
- **Spring recess**: March 10-18
- **Classes resume**: March 19
- **Classes end**: May 7
- **Study and advising days**: May 8-9
- **Examinations begin**: May 10
- **Examinations end**: May 16
- **Commencement (Saturday)**: May 19

### Intersession 2002-2003
- **Classes begin**: May 21
- **Memorial Day recess**: May 28
- **Last day of classes**: June 15

### Summer Session 2003-2004
- **First day of classes**: June 18
- **Last day of classes**: July 27

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In conformance 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 policies. Inquiries concerning this policy may be directed to the Affirmative Action Office, Cofrin Library 830, University of Wisconsin-Green Bay, WI 54311-7001 (920-465-2238).

UW-Green Bay implements Chapter UWS 22, Wisconsin Administrative Code, which assures students' right to meet academic requirements while also accommodating their own sincerely held religious beliefs. Questions about policies should be directed to Dean of Students, Student Services 1905, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311-7001 (920-465-2152).