

1992-1994

1992-1994

---

# UNIVERSITY OF WISCONSIN-GREEN BAY

---

# UNDERGRADUATE CATALOG

## How To Use This Catalog

This catalog provides information about academic programs, facilities, services, and campus life at the University of Wisconsin-Green Bay. It describes what the University offers and what the University expects of a student in order to successfully complete an academic program.

The catalog is essential for planning a program of study, but students should not rely entirely on it. After reading appropriate sections of this catalog, students should plan their individual programs with the help of academic advisers and faculty advisers for their majors.

## Current Information

Current fee and tuition information is distributed as far in advance of each session as possible through the *Timetable* or a fee information sheet, both published by the Registrar's Office. Fee information appears in the *Timetable* for each fall, spring, January, or summer session if fees have been determined by the Board of Regents before the *Timetable* is printed. If the information is received too late for the *Timetable*, it appears on a fee information sheet which is available to every student and prospective student.

Course schedules for each session are published in the *Timetable*. Changes which take place too late to be included are listed on addenda sheets given to students at the time of registration and posted at the Registrar's Office.

## Other Publications

### Academic Advising Handbook

(available from Academic Advising Office)

A guide to program planning, registration, and academic requirements.

### Course Listing

(available from Admissions Office)

Lists schedule of courses for each spring and fall semester.

### Timetable

(available to admitted students from Registrar's Office)

A schedule of courses offered for each term, along with other information on registration, descriptions of new courses, tuition and fees, etc.

### Student Handbook

(available from Dean of Students Office)

Information about life on the campus and in the Green Bay community.

### Prospectus

(available from Admissions Office)

A summary of information for persons interested in exploring the possibilities at UWGB.

### Program of Study Flyers

(available from Admissions Office)

Individual flyers with detailed information on each academic program.

### Housing Brochure

(available from Admissions Office)

A brochure describing on-campus residence halls and apartments for students.

### Extended Degree Program Catalog

(available from Extended Degree Office)

Describes external degree program for adults who want to complete a college degree.

### Graduate Studies Catalog

(available from Graduate Studies Office)

A catalog providing information about the University's master's degree programs.

Other publications on special services and programs are available.

## For More Information

### The University address is:

University of Wisconsin-Green Bay  
2420 Nicolet Dr.  
Green Bay, Wisconsin 54311-7001

### Campus Information Center

414-465-2000

### TDD Number

414-465-2841

### Academic Advice

Academic Advising Office; 414-465-2362

### Adult Student Information

Adult Services Office; 414-465-2530

### Applications, Brochures, Undergraduate Catalogs, Campus Visits, General Information

Admissions Office; 414-465-2111

### Career Counseling

Placement and Career Development Office; 414-465-2163

### Financial Aid

Financial Aid and Student Employment Office; 414-465-2075

### Graduate Studies

Associate Dean for Graduate Studies; 414-465-2484

### Housing Off Campus

Dean of Students; 414-465-2152

### Housing On Campus

Residence Life Office; 414-465-2040

### Lifelong Learning, Non-Credit Courses

Office of Outreach; 414-465-2102

### Personal Counseling and Life Planning

Counseling and Student Development Center; 414-465-2343

### Student Records, Transcripts, Residency, Credit Evaluation

Registrar's Office; 414-465-2055

**NOTE:** Some student service offices (such as Academic Advising) have extended hours to accommodate evening students. If you have a question about hours, call the office in question.

## Effective Dates

This catalog is in effect beginning July 1, 1992, and until it is superseded by a new catalog. Policies of the previous catalog are in effect until June 30, 1992, unless they are changed by official announcements.

## University Policy

The provisions of this catalog are not to be regarded as an irrevocable contract between the student and the University of Wisconsin-Green Bay. All of the information in this book was accurate at the time of its printing, but changes are made from time to time in academic requirements, courses offered, and general regulations. Such changes are made through established procedures which protect the University's integrity and the individual student's interest and welfare. Changes are usually announced in the *Timetable* and in the form of updates mailed with grade reports at the end of each term. When a curriculum or graduation requirement is changed, it is not made retroactive unless the change is to the student's advantage and can be accommodated within the span of years normally required for graduation.

# CONTENTS

<b>University of Wisconsin-Green Bay</b>	<b>4</b>	<b>Admission</b>	<b>139</b>
<b>Academic Resources</b>	<b>6</b>	<b>Costs</b>	<b>143</b>
<b>Campus Life</b>	<b>8</b>	<b>Financial Aid</b>	<b>144</b>
<b>Planning an Academic Program</b>	<b>10</b>	<b>Academic Rules and Regulations</b>	<b>147</b>
<b>Academic Requirements</b>	<b>12</b>	<b>Financial Aid Refund Payments</b>	<b>154</b>
<b>Special Learning Opportunities</b>	<b>14</b>	<b>Academic Progress for Financial Aid</b>	<b>155</b>
<b>Academic Year Calendar</b>	<b>16</b>	<b>UW-Centers Course Equivalencies</b>	<b>156</b>
<b>Programs of Study</b>	<b>17</b>	<b>Directory</b>	<b>159</b>
<i>(detailed contents on page 17)</i>		<b>Index</b>	<b>166</b>
<b>Associate of Arts Degree</b>	<b>92</b>	<b>Campus Map</b>	<b>inside back cover</b>
<b>Master's Degrees</b>	<b>93</b>		
<b>Course Descriptions</b>	<b>94</b>		

# UNIVERSITY OF WISCONSIN-GREEN BAY

## Academic Program

Students who graduate from the University of Wisconsin-Green Bay are well prepared for careers or advanced study. UW-Green Bay's distinctive academic program enables students to acquire and integrate the knowledge and skills sought by today's employers and graduate and professional schools. Equally important, the academic program prepares students for a lifetime of learning and the ability to understand and respond productively to change.

A significant aspect of the academic plan is the interdisciplinary component of each student's program. That means that while students major in a particular subject, they will also examine how it relates to other subjects; that in addition to preparing for a particular career field, students will examine how it fits into the context of other endeavors. Ability to understand complex relationships, to examine things from many perspectives, and to work with those from other fields are qualities in demand. In a world where most individuals can expect to change careers several times, the qualities gained through an interdisciplinary education are essential.

All students at UW-Green Bay participate in a broadly defined general-education program which includes studies in the natural sciences, social sciences, humanities, and fine arts. Many general-education courses are designed to bring together different academic disciplines; others are more focused upon a particular dimension or approach; others emphasize studies of minority cultures within American society or the cultures of other countries. Students complete general-education in their senior year with a seminar in which different intellectual perspectives are brought to bear upon a particular topic or issue.

Students pursue in-depth preparation through a major. The major may be in a 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 choose a major in a discipline have an added dimension to their preparation because they also complete a minor in an interdisciplinary program. This enables them to see their specialty in context and work productively with persons from other backgrounds as they seek to understand a broad range of issues and problems.

Many students select an interdisciplinary major, recognizing that there are many career directions in which broadly integrated preparation is better than a more specialized disciplinary background. Some of these students will also include a minor in a disciplinary program or studies in a professional program.

The University's emphasis upon practical applications of knowledge provides UW-Green Bay students with a significant advantage. By applying knowledge to real experience, they learn to define problems, evaluate them, and find solutions. They gain such experience in many ways—through class projects, independent study, professional internships, honors projects, and working with faculty and community members on research and other special projects. These activities all can count as practical experience when students enter their chosen careers. Surveys of UW-Green Bay graduates show that they feel well prepared for their chosen occupations and for further education.

Such an emphasis upon the applications of knowledge requires the support of faculty members who have a strong commitment to excellence in teaching. At UW-Green Bay, senior faculty regularly teach introductory courses as well as advanced courses and seminars. Surveys of alumni consistently show high satisfaction with faculty expertise and student-faculty relationships. Many comment on the special attention and encouragement they received from their professors. Independent study

projects, research projects, and internships all require a great deal of individual time and attention and reflect the faculty's concern for the academic and personal growth of their students.

This emphasis upon interdisciplinarity and practical problem-solving is what makes the education experience at UW-Green Bay distinctive as a strategy for learning, as preparation for productive and fulfilling careers, and as a way to develop a responsive and responsible perspective as citizens and stewards of the Earth.

## Degrees

UWGB offers the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree, the Bachelor of Social Work (B.S.W.), the Bachelor of Science Nursing (B.S.N.), and the Bachelor of General Studies (B.G.S.). It also offers a two-year Associate of Arts (A.A.) degree, and graduate studies leading to a Master of Science (M.S.). Three graduate degrees offered are:

- Master of Science in Administrative Science
- Master of Science in Community Human Services
- Master of Science in Environmental Science and Policy

The Master of Business Administration and several master's degrees in education are offered cooperatively with University of Wisconsin campuses at Oshkosh and Milwaukee.

## Accreditation

The University is accredited by the North Central Association of Colleges and Secondary Schools for the bachelor's degree, and for graduate work at the master's degree level.

Individual programs with accreditations or approvals include:

- Chemistry, American Chemical Society
- Dietetics component of Nutritional Sciences, American Dietetic Association
- Music, National Association of Schools of Music
- Nursing, National League of Nursing
- Social Work, Council on Social Work Education

## History

In 1965, when the Wisconsin Legislature authorized a new campus of the University of Wisconsin System for Northeastern Wisconsin, Green Bay was already the home of a two-year University of Wisconsin Center enrolling about 1,000 students. It was integrated with the new University of Wisconsin-Green Bay in 1968. In the fall of 1969, classes opened in the first three buildings of the new campus overlooking the waters of Green Bay east of the city.

The campus today includes 12 major buildings for instruction and services to students, an arboretum linking natural areas along the campus boundary, a golf course, waterfront recreation area, student apartments and residence halls, and ample open space.

The campus is one of 13 degree-granting institutions in the University of Wisconsin System. The University's select mission is to offer an academic plan made distinctive by a strong, interdisciplinary, problem-focused liberal education reflected throughout its program.

## Students

The University enrolls about 5,190 undergraduates and 235 graduate students (fall 1991-92). The diverse student body includes students from all but four of Wisconsin's counties, 24 other states, and 24 other countries. Of the regularly admitted freshmen in 1991-92, more than 43 percent ranked in the upper one-fourth of their high school graduating class.

## The Campus

The campus is a 10-minute drive from the city center of Green Bay, Wisconsin. The campus has exceptional facilities for learning in a park-like setting.

The 700-acre site is on gently rolling terrain sloping from a geological formation known as the Niagara Escarpment to the waters of Green Bay. The Cofrin Memorial Arboretum, around the campus periphery, is a resource for instruction and recreation. It has streams, ponds, wooded areas, prairie habitat, and bay shore environment, all accessible by trails. A nine-hole public golf course on campus is maintained in winter for cross-country skiing. There is a waterfront recreation area on the bay shore. Because major buildings are clustered on the University site, much of the campus is open for recreational use.

The University continues to add facilities. The Edward W. Weidner Center for the Performing Arts, opening in the 1992-93 season, will be Wisconsin's major performing arts facility outside of Milwaukee and Madison. The 2,000-seat theater will showcase major theatrical, musical, and dance events and special attractions. The Weidner Center will serve residents of a large surrounding area. The Student Union will nearly double in size by 1993. The addition will accommodate events with large attendance, a student mailroom, an expanded Rathskeller, and other facilities. The Union expansion meets needs of an increased campus resident population.

## The Community and Region

Green Bay is a manufacturing city and the county seat of Brown County with a metropolitan area population of more than 185,000. Major industries are paper products, food processing, and metal working. The city is the home of the Green Bay Packers professional football team.

Community resources include theater and music organizations, a good public library system, daily and weekly newspapers, several AM and FM commercial radio stations, and five commercial television stations. The region is also served by WPNE-FM of the Wisconsin Public Radio system and WPNE-TV, Channel 38, of the Wisconsin Educational Television Network. WGBW-FM, also affiliated with Wisconsin Public Radio, broadcasts from the campus. Other schools in the community include St. Norbert College, a private Catholic college in suburban De Pere, and Northeast Wisconsin Technical College.

Although many industries are located in Green Bay and the Fox River Valley to the south, most of Northeast Wisconsin is farmland. Green Bay is the gateway to two areas of Wisconsin known for their natural beauty: Door County and the "north woods" country. The Door County peninsula juts into Lake Michigan to create the bay of Green Bay. The landscape is characterized by farms, orchards, small villages with attractive harbors, and miles of shoreline. A vacation area for decades, Door County is a center of summer cultural activities. Northern Wisconsin is known for lakes and forests and the recreational facilities of the Lake Superior region.

Major cities are within easy traveling distance from Green Bay: Milwaukee is 114 miles south; Madison is 132 miles southwest; Chicago is 220 miles south; and Minneapolis-St. Paul is 285 miles west of Green Bay. The city is served by the interstate highway system, several airlines, and two intercity bus lines.

# ACADEMIC RESOURCES

## Center for Public Affairs

The Center for Public Affairs at UWGB provides an opportunity for students to participate in team research, internships, and technical assistance experiences in public policy, politics, government, and public management. Students work with state and local government officials, legislators, public managers and other public professionals in such diverse areas as hazardous materials assessment, recycling and other environmental policies, health care administration, seismic risk assessment, community design and development, zoning analysis, cultural diversity, public opinion surveys and government/business relations. Some of these projects have been funded by agencies such as the National Science Foundation and the Wisconsin Department of Natural Resources; others have been inspired and supported by local hospitals and citizen groups.

The Center works closely with the University of Wisconsin General Extension to develop outreach programs in government affairs, and students have opportunities to participate in some of these activities. The goal of the Center is to provide quality experiences for students and faculty and to serve the need for research, policy analysis, and training for the local community and northeastern Wisconsin.

## Cofrin Arboretum and Natural Areas

The 270-acre Cofrin Arboretum encircling the campus is a significant resource for field trips, class projects, and individual research. Other University natural areas expand the range of landforms, vegetation communities, and animal habitats available for study.

The Arboretum supports a program of grants for individual student research within the arboretum and natural areas. Students whose proposals gain support may receive up to \$1,000 to carry out their projects. Students present results of completed projects in an annual symposium.

The Arboretum has mature upland forests, a cedar swamp, several types of restored prairie communities, old fields, several ponds and wetlands, a stream, an extensive limestone outcrop of the Niagara Escarpment, and more than a half mile of shoreline on Green Bay. Other University natural areas include sites on Lake Michigan and in the interior of the Door County peninsula.

Within this diversity are opportunities to study sites that are preserved, areas undergoing restoration and development, and formerly cultivated sites in various stages of colonization by woody plants. A large number of the plant and animal species of northeastern Wisconsin exist in these natural areas.

## Computing Facilities

Study and research at UW-Green Bay are well supported by computing facilities. The main computing power for the academic program is supplied by a Digital Equipment Corporation VAX 8530. This system can easily support up to 200 users as well as provide remote services and dial-in capability. It is the backbone for the campus network.

Software capabilities on the VAX 8530 include the programming languages BASIC, FORTRAN, COBOL, PASCAL, C, LISP, and OPS5. Data analysis packages include SAS, MINITAB, LJNDO, and MASSBAL. Relational (RDB) and network (DBMS) databases are available, as well as query language which supports both. Several graphics packages support statistical analysis and mapping classes. Text and graphics output are available through a central line printer, laser printer, and remote printers.

Academic computing supports four microcomputer laboratories with IBM-compatible and Macintosh computers. These laboratories are variously equipped with academic software, including programming languages, worksheets, word processing, databases, and engineering and other course-specific applications. Computer lab areas have generous hours for student access. An open lab with both Macintosh and IBM-compatible units and a number of mainframe terminals is available when other laboratories are in use.

Several specialized computer laboratories at other locations on campus support instruction in geographic information systems, graphic communications, photography, and the sciences.

## Data, Video and Voice Network

The universal wiring system makes Green Bay one of the first UW campuses to put into use a campus-wide network for data, video, and voice. Data and voice wiring connects all classrooms, laboratories, faculty offices, administrative areas, and on-campus student housing. Video wiring will create a campus video network among classrooms, laboratories, student residential complex, and some conference rooms.

Data access is the most visible enhancement offered by the system. The network enables students, faculty, and staff to use all of the campus computing resources regardless of their location. The network will be accessible by dial-in from off-campus as well as from campus locations.

## Educational Support Services

A variety of academic support services exist through the Educational Support Services Office. These help students develop or improve essential academic skills. Services include nondegree-credit courses in math, composition, and reading and study skills; individual and structured small group tutoring, and workshops and informational materials on topics such as time management, effective notetaking, and test preparation.

## Faculty

UWGB faculty are a well-prepared academic resource. More than 95 percent of the 161 full-time faculty members have the Ph.D. or other highest credential in their fields.

Commitment to teaching is essential at Green Bay. All faculty members teach; the few teaching assistants primarily assist with laboratories. Faculty members are accessible to work individually with students to supervise independent studies, internships, and honors projects. Faculty members grow in their fields through scholarly activity by doing research, publishing in journals, participating in professional organizations, and engaging in other equivalent activities. This dual involvement in teaching and scholarship directly benefits students both in the classroom and through opportunities for student participation in faculty projects.

The accrediting team that most recently visited UW-Green Bay listed the faculty as one of the University's great strengths. They described the faculty as "vigorous and well qualified." The team noted that students perceive faculty as being accessible, interested in their disciplines, and committed to high quality education.

## Herbarium

The UWGB Herbarium houses a collection of over 20,000 specimens of vascular plants and provides many opportunities for student research, collection, and cataloguing projects. Students have collected and prepared a large number of specimens from northeastern Wisconsin, including endangered and threatened species, and continue to catalog specimens from the Cofrin Arboretum, and off-campus UWGB natural areas. With the addition of computer support, students are also able to map the distribution of plants and their responses to environmental changes. Specimens from the Herbarium are also used for classroom demonstrations and laboratories, and researchers from the Wisconsin Department of Natural Resources, other University of Wisconsin campuses, and universities in other states frequently make use of the Herbarium collection.

## Lawton Gallery

The Lawton Gallery enhances and complements the academic program by bringing to the campus and the larger community quality examples of professional work currently being produced in the state, region, and nation, and by exhibiting faculty and student work. The gallery attempts to illuminate the major aesthetic, stylistic, technical, and conceptual issues of our time by presenting a wide range of viable styles, media and content.

Of the seven to nine annual exhibits, all but one typically are curated in-house. Three or four exhibits annually feature student and faculty work.

The annual student exhibition is juried by an outside professional artist or curator and acceptance into the exhibit is a significant achievement. Arts management students earning credit and work-study students gain experience in all aspects of curatorial and gallery practice by working in the gallery. Students assist in an annual national juried or invitational exhibit, and in preparing one exhibit each year for an extended tour.

The gallery also develops and presents lectures, artists' workshops and residencies, interpretive gallery talks, and other supporting activities.

## Library

Centrally located among the academic buildings, the Library supports the academic program with a collection of over one million items and computer database access to the accumulated knowledge of humankind.

The Library holds nearly 280,000 books and bound periodicals, maintains current subscriptions to 1,400 scholarly journals, magazines, and newspapers, and has 26,000 rolls of microfilm backfiles. Extensive holdings of government documents include those acquired as a depository for the U.S. Government and the State of Wisconsin, and also collections of publications of Canada, the United Nations, and many international organizations. About half of the 900,000 government documents are on microfiche. Other specialized collections include 55,000 maps, 3,300 sound recordings, 2,000 musical scores, and 5,800 instructional materials for teachers. In addition, the Special Collections Department contains historical records of northeast Wisconsin, the Kramer Collection of socialist/radical literature, fine print books, rare materials including old maps and manuscripts, and the University archives.

Library facilities include a quiet study area, individual and group study rooms, a microcomputer area for individual word processing use, and general reading and study areas. The Library's "card catalog" is accessed by on-line computer stations.

Information available to library users goes far beyond its own holdings. Library patrons can gain access through the OCLC database to 23 million books and other materials held by 8,000 libraries in the U.S., Canada, and England. Users also can access the DIALOG system which provides entry to 300 databases in a broad scope of disciplines containing over 160 million records. Several compact disk databases are available in the library.

## Richter Natural History Museum

The Richter Natural History Museum is a valuable resource for student study and research. Its collections include representative animal species from northeastern Wisconsin and an extensive collection of bird eggs, nests, and study skins derived mainly from the life's work of the late Carl H. Richter of Oconto, Wisconsin. Richter, one of North America's foremost oologists, in 1975 donated all of his specimens, including more than 10,500 egg sets. Some are dated as early as 1884. The donation included a large series of vertebrate specimens, Indian artifacts, mollusks and butterflies, geological specimens, historical documents, and photographs.

Today, the Richter Museum includes approximately 11,000 sets of bird eggs representing more than 90 percent of the North American avian species and subspecies. Valuable sets include endangered species such as whooping crane, snail kite, and Kirtland's warbler, and several extinct species, including the passenger pigeon. The egg collection is North America's 13th largest. In addition to fluid-preserved specimens, study skins, and skeletons, the Museum has a library of books, journals, and reprints in support of the collections.

The Museum collection includes nearly 100 percent of the locally breeding bird species, 95 percent of the mammals, 80 percent of the reptiles and amphibians, and 80 percent of the fishes. Specimen collections continue to grow through contributions by students, faculty, and staff, and by the Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, and U.S. Forest Service.

Materials from the natural history collections and from the University's Herbarium are displayed in the museum in Laboratory Sciences room 201.

## Theatre

UW-Green Bay theatre facilities support many facets of education both for those pursuing theatre as practitioners and those seeking learning and enjoyment as spectators.

The well-equipped facilities include a 450-seat proscenium theatre, a flexible, "black box" theatre, acting studio, dance studio, costume shop, scene shop, and computerized lighting facilities. New facilities will further enhance student preparation. Computer-aided design capabilities for scene, lighting, and costume design are planned. The new Weidner Center for the Performing Arts will offer new opportunities for students.

Casting is open and by audition for several main-stage productions directed by faculty each year. Students work on all aspects of the productions. The smaller, alternate theatre presents a number of performances each year that are entirely student-run, including direction. Sometimes the plays are original works written by students.

## Writing Center

Writing workshops and individual assistance with writing skills are provided by the Writing Center. Students may use the facility on a one-time or on-going basis. Writing Center services are available on a walk-in basis as well as by referral.

# CAMPUS LIFE

## Campus Housing

University Village on campus offers two different residence options for students—residence halls and apartments. About one-fourth of UWGB students live on campus.

Residence hall rooms—each with a private bathroom—are designed for two students. Coin-operated laundry facilities and a kitchen for preparing snacks are available in each building.

Most of the furnished apartments have two bedrooms and are designed for four students. Each apartment has a living room, a compact kitchen-dining area, and a bathroom. Coin-operated laundry facilities and locked storage are available in each building.

Professional residence life staff administer University Village and each building has a resident assistant—an upperclass student with special training and thorough knowledge about campus and community.

The centrally-located community building has a lounge, recreation and game room, conference room, and computer room, in addition to offices for administrative staff and student housing council. Outdoor volleyball, and basketball courts, picnic tables and grills are located in the park-like setting. Food service and resident-student mail boxes are located in the Student Union, a five-minute walk from the village.

Students 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 the residence halls must purchase a food plan. Other students may buy food plans or simply purchase meals in one of three dining facilities. The food plan does represent some savings. The dining service is managed by a professional food service vendor.

Dining areas include the Nicolet Room, the main dining room located on the plaza level of the Student Union; the Garden Cafe, a delicatessen-type facility in the lower level of the Coffin Library; and the Rathskeller, in the lower level of the Student Union. It offers made-to-order pizzas, sandwiches, and snacks. Food plans are valid at any of the three.

Vending machine service is available at all hours in the lower levels of Wood Hall, Laboratory Science, Studio Arts, and the Coffin Library.

## Transportation

Many students who commute from home or rent housing in the community take advantage of city bus service for transportation to and from campus. City buses reach and depart from the campus every half hour until 6:15 p.m. and hourly until 10:15 p.m. Monday through Friday. Hourly service is provided on Saturday until early evening. There is no Sunday bus service.

## Retail Services

The University-operated Phoenix Bookstore is the source for books and classroom supplies. The store carries a selection of clothing, gifts, UW-Green Bay souvenirs, magazines, calculators, greeting cards, art supplies and other items. Other on-campus services include the University of Wisconsin Credit Union, automatic teller machines, and Second Gear, a resale shop that helps to support scholarships.

The city of Green Bay is the retail trade center of Northeastern Wisconsin. A major downtown shopping mall and other outlying shopping centers can be reached from campus by city bus.

## Student Services

**Adult Student Counseling.** The Adult Services Office provides assistance and counseling for the many UW-Green Bay students who are beyond the "traditional" college ages of 18 to 24. Staff members will help adult students enroll, acquaint them with the University's people, programs, and resources, and arrange seminars and support groups.

**American Intercultural Center.** The American Intercultural Center is a supportive environment for 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.

**Child Care.** The Children's Center serves the preschool and day care needs of students and employees with young children. The center's programs, supervised by licensed nursery-kindergarten teachers, are open to children ages two through six during the school year and two through 11 during the summer session.

**Counseling.** Staff members in the Counseling and Student Development Center are available on a confidential, one-to-one basis to discuss an array of student concerns. The center offers referral to community agencies.

Staff members encourage students to work through problems and to develop life-long coping skills. Discussion groups and workshops focus on assertiveness, communication skills, eating disorders, personal growth, stress, and other topics.

Students making career decisions may take personality and interest inventory tests to explore their own strengths and limitations and how these affect relationships, work and academic choices.

**Dean of Students.** The Dean of Students Office coordinates efforts of the University's student services offices. 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 free legal service for students.

**Ecumenical Center.** Counseling, weekly worship services, social events and growth and support groups are among the activities taking place through the Ecumenical Center campus ministry. The center is supported and operated by a community board composed of members of many denominations. Its programs are open to persons of all faiths and to those of no religious affiliation.

**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 and staff members scout for part-time openings in which salaries are fully paid by employers on campus or in the community. Job openings are posted as they become available.

**Handicapped Services.** UW-Green Bay 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 washrooms, science laboratories, and the Phoenix Sports Center are campus features.



Equipment available through the Academic Support Program includes a braille writer, an automatic page turner, a typewriter, a talking calculator, slow-speed cassette recorders, taped texts and a printing Telecommunications Device for the Deaf (TDD). A resource coordinator and counselor can arrange, upon request, for student assistants to serve as notetakers, typists, readers and aides. The coordinator, a staff member in the Counseling and Student Development Center, is also a resource for persons with learning disabilities.

**Health Care.** Health Services provides treatment for minor illnesses 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 two part-time physicians. The nurses' services are available during daytime hours, Monday through Friday, by appointment or on a walk-in basis to students who have 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.

**Information.** Answers to questions about faculty schedules, times and locations of campus events and a host of other topics can be found at the Information Center, located inside the circle entrance on the library's concourse level. Maps of the campus and community are available. The center has bus tickets and envelopes for sale, and an out-going mail drop. The main campus switchboard and lost-and-found are here.

**International Student Center.** Students from 24 foreign 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. The center's lounge is a meeting place for international students.

**Placement, Career Planning.** Finding a job after graduation can start as early as a student's first semester on campus with the aid of the Placement and Career Development Office.

A student undecided on a major can begin career exploration through a computerized career information program that links values, interests, and skills to career opportunities. The office also has an extensive library with career outlooks, planning guides, and employer information. Students matched with UW-Green Bay graduates through the Career Information Network can learn firsthand of the day-to-day demands of a particular career and its long-term prospects.

As graduation draws near, students can take advantage of Placement and Career Development assistance in resume and interviewing preparation, job search strategy, job listings, on-campus interviews and employer referrals.

**Security.** Officers are on duty 24 hours a day to provide for the safety and security of people and property on campus.

**Women's Programs.** The Women's Center is a focus for programs and services directed to campus women. Conferences, speakers and special events celebrate women's achievements and examine issues of topical importance. The office provides advising and advocacy.

## Activities

**Arts.** Campus music, theatre and dance ensembles offer entertainment as well as opportunities for student performers of all academic majors.

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, and the New Music Ensemble. The same is true for choral groups including Show-Jazz Choir, Concert Choir, and University Chorus. Students may perform in the University's pep band, or receive credit for participation in the Green Bay Symphony Orchestra.

The University Theatre presents several faculty-directed mainstage productions each year, including musicals, drama, children's theatre and comedies. Alternate Theatre gives students the chance to write and direct as well as act. In both programs, students can participate in set construction, scene painting, lighting, costume design, publicity, and other tasks. University Dancetheatre presents a major performance each spring, and dancers also take part in theatre productions.

Exhibitions in the University's Lawton Gallery feature works by artists with national and international reputations, as well as the annual faculty and juried student exhibits. Student groups such as the Art Agency, Students for Photographic Education, and Future Art Teachers of America promote interest in contemporary visual arts.

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

**Athletics, Recreation.** Depending on the season, outdoor recreation enthusiasts can jog along arboretum trails, play golf on a nine-hole course, sun at a waterfront park, rent a boat and sail the waters of Green Bay, or go cross-country skiing, all without leaving the UW-Green Bay campus. State parks and other outdoor recreation areas are a short drive away in scenic Door County.

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 weight room and a multi-purpose gymnasium with facilities for basketball, volleyball, and indoor tennis. Outdoors nearby are tennis courts, softball diamonds, and all-purpose playing fields.

**Clubs, Organizations.** In a typical year about 80 student clubs and other organizations are active on campus. Groups such as the Communication Honor Society, Marketing Association, the Social Work Club, and the Student Council for the Humanities bring together individuals with common academic interests. Chess Club and Ski Club are examples of groups whose members share leisure-time interests.

Students are responsible for *The Fourth Estate*, the weekly student newspaper. *Sheephead Review* is the student-edited literary magazine. A wide range of other organizations promote awareness of social and political issues, or provide service to the campus and community. Staff members in the Office of Student Life provide leadership and training, help students organize new groups, and refer students to existing organizations.

**Entertainment.** The student-run Good Times Programming Board plans a full schedule of popular and international films, coffeehouse entertainment and bands. Fall homecoming, spring week, winter ski trips, and spring break journeys to Florida are among other activities organized with the help of the Student Life Office.

**Intercollegiate Sports.** Basketball is the major competitive sport at UW-Green Bay for both men and women. Both teams have excelled and brought national attention to the University. Women also compete in tennis, soccer, swimming and diving, softball, volleyball, and cross-country running. Men's teams include soccer, tennis, golf, cross-country running, and swimming and diving. Two members of the Nordic ski team made the 1992 winter Olympic trials.

**Student Government.** Students share in University governance through the Student Association and its five subgroups.

Student Senate members help to make and review policies concerning student life on campus, and serve on University committees dealing with such concerns as services to the handicapped, health services, intercollegiate athletics, and academic actions. Senate members also lobby local, state, and national legislators on issues affecting students. Another elected group, the Segregated University Fee Allocation Committee (SUFAC), manages allocation of fees to student organizations and programs. Student Union Policy board helps to oversee the Student Union. The Housing Council organizes events for on-campus residents and works with University administrators to develop policies affecting campus housing. Good Times Programming Board is part of the governance structure, too.

# PLANNING AN ACADEMIC PROGRAM

## Goals of the Academic Plan

All programs of study at UWGB are based in the liberal arts. They are aimed at providing students with a broad and comprehensive education in addition to the specialization of their majors. Two essential elements are:

1. general-education requirements, and
2. an interdisciplinary, problem-focused component.

These are the distinctive elements of our academic plan.

Undergraduates, in most universities, master a discipline such as history or mathematics; or achieve a high degree of competence in a professional program such as social work; or prepare themselves for further study in professions like law or medicine. Students can accomplish all these things at UWGB. In addition, however, they must learn how to effectively apply the knowledge they have gained, and this opportunity is what sets UWGB apart. Effective application of knowledge is the purpose of our general-education requirements, focus on problems, and interdisciplinarity. These elements allow students to apply what they are learning to "real" issues and enable them to see how all knowledge is interrelated.

## Choosing a Major

It is not necessary to choose a major before coming to college; the freshman year is best spent in general education anyway. Students will have to satisfy requirements in writing. They will have to complete three three-credit courses each in the humanities and fine arts, the social sciences, and the natural sciences to satisfy breadth requirements. This provides an opportunity for the undecided student to "sample" courses from across the University and will likely be helpful in choosing a major. Students complete general-education requirements by fulfilling a three-credit other-culture requirement, and a three-credit ethnic studies requirement, and by taking a three-credit senior seminar. The seminar enables seniors to focus all of their education upon a single issue.

When they have earned 36 credits, students must choose a major. At UWGB, students can choose an interdisciplinary major such as business administration, environmental science, human development, or humanistic studies. There are 16 such majors, each drawing from many disciplines. Or, students can choose a traditional, disciplinary major—English, mathematics, or sociology, for example. There are 22 of these majors. In either case, students will have to take at least 30 credits in their chosen major, of which 24 must be at the upper level. Additionally, students who choose a disciplinary major must select an interdisciplinary minor of 18 credits, 12 of which must be taken at the upper level. Many majors require more than these minimum requirements, so students should see an adviser early.

Some students will want to pursue professional preparation. Individuals who want to earn teaching licensure will enroll the education major or minor. UWGB has programs leading to a bachelor of social work degree (B.S.W.), and students who already have an R.N. qualification can earn the Bachelor of Science in Nursing. Engineering students may enroll the Northeast Wisconsin Engineering program. Students who want to prepare for law or medicine or other professional schools requiring an undergraduate degree or courses for entry will need to consult advisers in these areas early, to ensure that they choose appropriate undergraduate courses. The same is true for preparation for graduate schools.

## Components of a Degree

### Component I

36 credits

### General-Education Requirements

- 27 credits of breadth consisting of:
- 9 credits of humanities and fine arts
  - 9 credits of social sciences
  - 9 credits of natural sciences and mathematics
  - 3 credits of other-culture studies
  - 3 credits of ethnic studies
  - 3 credits of senior seminar

### Component II

credits vary with major

### Supporting Courses

Preparatory and methods courses appropriate to the major (usually lower-level courses).

### Component III

30-48 credits minimum

### Major

The major is flexible; students choose one of these:

1. Interdisciplinary major (minimum of 30 credits in the major; 24 of these credits must be at the upper level)

OR

2. Disciplinary major (minimum of 30 credits in the major; 24 of these credits must be at the upper level)

plus

Interdisciplinary minor (minimum of 18 credits; 12 of these credits must be at the upper level)

### Component IV

credits vary

### Other Options

Courses to bring total credits to minimum of 124 degree credits required for graduation such as:

1. Minor or additional minor in disciplinary or interdisciplinary program
2. Other specific professional program
3. Electives
4. Other possibilities to be designed with an adviser

### Total

124 credits (minimum requirement)

Note: To be eligible for graduation, students must complete all requirements with a 2.0 grade point average, based on a 4.0 scale.

## Programs of Study

### *Disciplinary Majors and Minors*

#### Humanities and Fine Arts

Art  
Communication Processes  
(electronic media, journalism, organizational communications, photography, public relations, speech, linguistics)  
English  
French  
German  
History  
Music  
Philosophy  
Spanish  
Theatre  
(dance)

#### Natural Sciences and

Mathematics  
Biology  
Chemistry  
Earth Science  
Engineering  
Mathematics  
Physics

#### Social Sciences

Anthropology (minor only)  
Economics  
Geography  
Political Science  
Psychology  
Sociology

#### Professional Studies

Accounting

### *Interdisciplinary Majors and Minors*

(Students who choose a disciplinary major must take an 18-credit minor in one of these.)

#### Humanities and Fine Arts

Communication and the Arts  
(aesthetic awareness, broadfield communications, environmental design, integrated communications, musical theatre, science communication, graphic communications)

#### Humanistic Studies

#### Natural Sciences

Environmental Science  
Human Biology  
Information and Computing  
Science  
Nutritional Sciences

#### Social Sciences

Environmental Policy and  
Planning  
Human Development  
Public Administration  
Regional Analysis  
Social Change and Development  
Urban Studies

#### Professional Studies

Business Administration  
Education  
Nursing (B.S.N. for R.N.s)  
Social Work

#### Minors Only

American Indian Studies  
Women's Studies

### *Interdepartmental Minors*

International Studies

### *Areas of Emphasis*

Students can develop significant specializations by choosing areas of emphasis offered by many of our majors and minors. These can lead to specific and productive career fields. Examples of areas of emphasis include art management, ecology and biological resources management, environmental design, human nutrition/dietetics, gerontology, graphic communications, land use and community planning, law and social change, photography, and science communications. Students can learn about other areas of emphasis by reading descriptions of related majors and minors in this catalog, and by consulting advisers.

### *Personal Major*

Students whose goals are not met by any of the University's majors, may, with the help of advisers, design a personal major. This is a rigorous process, described in more detail elsewhere in this catalog.

### *Military Science*

This program provides specific career preparation.

### *Preprofessional Programs*

Such programs are prepared for through UWGB majors and minors. Graduate and professional schools usually require a four-year degree or two or three years of preparatory work at UWGB prior to transfer to the professional school. Examples of preprofessional programs include:

Agriculture	Mortuary Science
Architecture	Nursing
Chiropractics	Occupational Therapy
Counseling	Optometry
Dentistry	Pharmacy
Engineering	Physical Therapy
Law	Physician Assistant
Medical Technology	Theology
Medicine	Veterinary Medicine

### *Other Options*

#### General Studies Degree

Students unable to complete a degree through a regular on-campus program, or persons who already have some college credits, may wish to explore the extended degree leading to the Bachelor of Arts in General Studies. It is described elsewhere in this catalog.

#### Associate of Arts Degree

A two-year program of study leading to an associate of arts degree may be completed at UWGB. Interested students should read the description in this catalog and consult an adviser.

#### Graduate Studies

Students may continue their studies at UWGB beyond the bachelor's degree in specific master's degree tracks. These are described briefly in this catalog; a graduate studies catalog is available.

## Academic Advice

The best advice is to get advice. Students should see an adviser in the Academic Advising Office early. That office advises all students on meeting general-education requirements and is the source for advising students with fewer than 36 earned credits. Once most students have earned 36 credits, they must declare a major and their advising transfers to faculty advisers in their majors. Prebusiness and preaccounting students continue their advising at the Academic Advising Office until they have earned 62 credits. Pre-elementary education students are advised by that office until formally accepted into the education program. Faculty advisers for the majors are listed in each session's *Timetable*.

New freshmen should be sure to participate in a one-day Student Orientation, Advising, and Registration (SOAR) session before beginning their studies. Students who seek advice will be surprised how quickly all the elements of their degree fall together in a coherent pattern. Advisers also will help in making particular decisions, such as whether or not to pursue a double major, what supporting courses are needed to prepare for a major, and what special opportunities exist to enable students to pursue their own interests.

For students transferring into UWGB from another university, it is doubly important to see an adviser. Most, if not all, of their credits will count toward a UWGB degree. To avoid duplication, it is important that transfer students understand which requirements their previous courses fulfill.

# ACADEMIC REQUIREMENTS

## General-Education Requirements

General-education requirements total 36 credits. These include 27 credits of breadth courses, a three-credit ethnic studies course, a three-credit other-culture course, and a three-credit senior seminar. Students also must demonstrate writing competency and complete four courses in any subject area designated as writing emphasis courses.

General-education requirements must be completed within five years from the date students enroll as matriculated degree candidates.

The goal of general-education requirements is to help students broaden intellectual horizons, explore new interests, examine values, strengthen academic skills, and acquire a *foundation of knowledge* which complements their chosen programs of study. The requirements:

- introduce them to the major academic areas of knowledge and to the different ways knowledge is generated, defined, and used;
- increase their awareness of issues and values which affect them both as individuals and as members of society, and help them to be more reflective and self-critical of the positions they choose to affirm;
- help them to understand cultures different from their own, respect and value cultural diversity, and gain knowledge of causes and effects of stereotyping, racism, and ethnocentrism;
- increase their ability to solve problems through interdisciplinary approaches.

### Transfer Students

Transfer students' standing with regard to general-education requirements is based on equivalent courses completed at the time of their transfer to UWGB from another institution of higher education and on the total number of credits transferred.

All transfer students must complete the three-credit senior seminar at UWGB. They may satisfy the 27-credit breadth requirement by either transferring or completing nine credits each in the humanities and fine arts, social sciences, and natural sciences.

The writing competency requirement, three-credit ethnic studies requirement, and three-credit other-culture requirement also may be satisfied by transferring equivalent courses. The number of writing emphasis courses required depends on the number of credits transferred: students classified as freshmen must take four; sophomores, three; juniors, two; and seniors, one. Students at other institutions who plan to transfer to UW-Green Bay should select specific applicable courses to fulfill general-education requirements.

Requirements for transfer students are explained in more detail in the chapter on Admission. Transfer students are informed in writing by the Registrar's Office of their standing in regard to general-education requirements as soon as their credit evaluation is completed.

### Writing Proficiency

To fulfill this requirement, all students must demonstrate writing competency by the end of their second semester at UWGB and complete four writing emphasis courses in any subject before graduation.

Writing competency is demonstrated either by achieving a specified minimum score on the ACT or other approved placement test, or by passing 552-100, College Writing, or 246-100, Writing Skills Laboratory, by the end of the second semester at UWGB.

Performance on the ACT or another approved placement test is used to place students in one of four writing skills categories:

- In need of substantial development—Student must complete the noncredit course, 553-093, *Fundamentals of Writing*, and then successfully complete the three-credit 552-100, *College Writing*.
- In need of further development—Student takes 552-100, *College Writing*, or 246-100, *Writing Skills Laboratory*, or another designated alternative course, during one of the first two semesters at UWGB.

- Adequate—Student is not required to take a writing course, but is encouraged to do so, particularly a course above the 552-100 level, such as 552-105, *Expository Writing*.

- Quite good—No writing courses required, but such students are encouraged to continue developing their abilities by taking 552-105, *Expository Writing*, or a more advanced writing course.

International, Extended Degree, special, and graduate students, and students transferring approved writing course credits into UWGB may be exempted from the ACT.

**Writing Emphasis Courses.** In addition to demonstrating writing competency at the freshman level, students must complete four writing emphasis courses before graduation; at least two of these courses must be on the upper level. Writing emphasis courses are offered in most subject areas; they are designated with the letters "WE" in *Timetables*. These courses are designed to improve and reinforce writing skills by providing students with regular opportunities to practice those skills in courses across the curriculum.

Courses used to fulfill the writing emphasis requirement may simultaneously be used to fulfill other general-education requirements or requirements for major, minor, or professional programs.

### Breadth Courses

Students must complete three courses (nine credits) in each of three broad areas of knowledge: natural sciences, social sciences, and humanities and fine arts. Two of the courses in each area provide the opportunity to learn the distinctive approaches and some of the important subject matter in that area; the third course is focused on significant problems and issues and values which shape individual and social experience within that area of knowledge.

### Other Culture Studies

The other-culture requirement is intended to help students understand values and ways of life outside the United States so that they will be more aware of and sensitive to global issues and problems, particularly those related to stereotyping, racism, and ethnocentrism.

The requirement can be fulfilled by completing a three-credit course approved for this purpose. Courses approved to meet the other-culture requirement are identified in *Timetables* by the abbreviation, "OC." A course used to fulfill the other-culture requirement may not be used to fulfill any other general-education requirement except the writing emphasis requirement.

The other-culture requirement can also be satisfied by:

- participating in an approved January or June trip outside the U.S.A., or other approved study abroad experience or student exchange program outside the U.S.A.;
- completing the second year of a foreign language at the college level;
- petitioning for credit for documented substantial foreign experience gained outside of the student's academic experience.

International students studying at UWGB will satisfy the other-culture requirement by their residence and course work at the University.

### Ethnic Studies

The three-credit ethnic studies requirement is intended to help students respect and value cultural diversity, to understand the causes and effects of stereotyping, racism, and ethnocentrism, and to help prepare them to live in an increasingly multicultural society.

Courses approved to meet the ethnic studies requirement are identified in *Timetables* by the abbreviation "ETS." A course used to fulfill the ethnic studies requirement may not be used to fulfill any other general-education requirement except the writing emphasis requirement.

The requirement may also be satisfied by transferring three credits of ethnic studies coursework completed at another UW-System campus to meet the ethnic studies requirement there, or by petitioning for approval of an ethnic studies course from any other university or college.

#### Senior Seminars

The senior seminar is the integrating interdisciplinary experience in a student's general-education program. Senior seminar courses are organized around significant intellectual and social issues of our time. Every seminar stresses the values and problems associated with seeking interdisciplinary solutions to such issues.

Senior seminars differ from other general-education courses and from courses in the major in that they bring together advanced students from a variety of majors into a small classroom atmosphere that encourages them to extend, apply, and integrate knowledge gained in their respective fields. Each student completes a project that fits the issue or theme of the seminar. Further development of writing and speaking skills is emphasized.

Descriptions for senior seminar courses appear in the course descriptions section of this catalog, in the sequence numbered 867.

### Assessment Program Requirement

The assessment program is an opportunity for students to receive an objective analysis of their academic skills after they have completed two years of university studies. All students who have earned from 62 to 85 credits must participate. The assessment can be useful to students in several ways. It can:

- offer directions for "fine tuning" of students' course of studies and selection of elective courses;
- provide students' advisers with information to improve or enhance academic advising;
- offer guidance in making decisions about majors, minors, and careers.

The program consists of three related sessions—an orientation, the assessment itself, and an interpretation meeting. Students learn about the assessment process and the actual test in the one-hour orientation. The assessment session consists of a three and one-half hour exam that tests skills and knowledge in a wide variety of academic areas. In the last session, students receive the interpretation of the results and an analysis of their skills and knowledge in 23 specific areas.

Students have a choice of several dates to participate in each of the sessions. Students whose credit total makes them eligible for assessment will receive information and a registration form in the mail. Students who do not participate in the assessment program lose their eligibility to register for the next semester.

The Academic Advising and Registrar's Offices can provide information about assessment.

### Residence Requirement

To graduate from UWGB, at least one year of residence work (31 credits) at the junior or senior level is required. At least 15 credits of work required by the major and not less than one-half of the upper-level requirements for the major must be completed in residence at UWGB. Students who choose minors must also complete half of the advanced work in the minor at UWGB. The senior seminar requirement must be completed in residence.

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

A transfer student must complete the 36 credit general-education requirement but the portion of that requirement that 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 UWGB requirements.

### Remedial Work

New freshmen whose scores on the English or mathematics portion of the ACT test indicated a low probability for success in college-level courses, must complete remedial courses before they finish 30 credits of college work. This is a policy of the University of Wisconsin Board of Regents.

# SPECIAL LEARNING OPPORTUNITIES

## International Education

UWGB is committed to making awareness of other cultures part of its students' education. The University accomplishes this in two ways.

The first is to enrich a UWGB education by international interactions on campus. The University helps foreign students and faculty to attend UWGB. UWGB students from the U.S., studying in the congenial atmosphere of a small university can get to know students from Latin America, Europe, and Asia. Also, students can benefit from lectures and courses taught by international faculty members visiting and teaching in Green Bay.

As part of its responsibility, the International Education Office each year focuses the University's attention on a particular part of the world by actively promoting learning opportunities. Credit and noncredit courses, lectures, film series, concerts, performances, exhibits, and travel opportunities highlight a region or group, such as the European Community or the Indigenous Peoples of the Americas.

The second is to enable students to increase international exposure by studying abroad. Foreign study can be a vital part of a college education. Through it, students can broaden their horizons and enhance their career opportunities. With good planning, students can incorporate foreign study into their university experience without delaying graduation. Many different programs are available to UWGB students, and the International Education Office can help them find a program almost anywhere in the world that meets their educational needs.

Foreign study programs available to UWGB students include:

### Travel Courses

Students may participate in University-sponsored trips offered during January or summer that enable students to learn and earn credits abroad. Travel courses are offered to various locations, including England, Germany, Mexico, Italy/Greece, and France. Groups occasionally travel to Spain, Ireland, Eastern Europe, and India. New trips may be developed. These short trips offer a concentrated opportunity to experience other cultures.

### Exchanges

Students may enroll in courses at UWGB, but study at universities abroad with which the University has exchange agreements. UWGB currently has exchange programs with the University of Kassel, West Germany; Aalborg University, Denmark; University of Yucatan, Mexico; Linköping University, Sweden; Universities at Lviv and Kharkov in the Ukraine; and University of Leon in Spain. Green Bay students also may study at the Sorbonne, University of Paris, through the Urban Corridor Consortium of the four UW campuses in eastern Wisconsin. Students may study for a semester or a year at these universities and take advantage of the special ties that have been cultivated.

### Study-Abroad Programs

Students may enroll directly at a foreign university or through a study-abroad sponsoring entity in the United States and transfer the credits back to UWGB. Study-abroad opportunities are abundant—UWGB students can study almost anything almost anywhere. The International Education Office provides resources to help students choose the program best suited to their needs.

## National Student Exchange

UW-Green Bay is one of only three UW System schools participating in National Student Exchange, a program which enables students to study for a semester or a year at one of 75 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 are motivated by specific needs: the opportunity for an earth science student to spend a semester in a place that is geologically different from Wisconsin, for example, or to study with particular faculty members at another university, or to take advantage of special courses or programs. 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. Students should contact the Individualized Learning Programs Office for more information.

## Credit Alternatives

### Advanced Placement Credit

Students who enter the University with advanced preparation in calculus, Spanish, French, or German may receive credit for that preparation by passing an advanced-level UWGB course with a grade of "C" or better. For information about advanced placement in these subjects, see program descriptions for mathematics and foreign languages.

### 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, or in paid or unpaid employment that has helped to achieve learning equivalent to that which would be gained in a college course.

The University uses College Level Examination program general exams in the humanities, natural sciences and social sciences; most CLEP subject exams; and most of the ACT Proficiency Examination Program exams. The University also accepts Advanced Placement Program exams. UW-Green Bay accepts credentials earned through certain other standardized exams, including those of the International Baccalaureate program, as a basis for granting credit when scores are at an acceptable level. In addition, challenge exams are available for certain courses offered at UW-Green Bay.

Only students admitted and enrolled as degree candidates may receive credit-by-exam at UWGB. Students should contact the Individualized Learning Programs for more information.

### Credit for Prior Learning

Learning based on experiences such as employment, volunteer activities, participation in workshops and seminars, travel, and publications may be used as the basis for seeking credit, if such experiences are related to courses, subject areas or programs, at UWGB. 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 wish to apply for credit for prior learning should do so through the Individualized Learning Programs Office. Applicants complete a workshop to learn 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.

## Individualized Learning

### Extended Degree Program

Adults unable to attend traditional on-campus courses may complete University degrees through the Extended Degree Program. The fully accredited bachelor's degree program leads to the Bachelor of General Studies. Extended Degree students fulfill all academic requirements and meet the standards of educational quality characteristic of the University of Wisconsin System, but complete most requirements off campus.

Extended Degree students gain skills which enable them to manage people, information, and products. They may 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. Students have a limited number of on-campus meetings with faculty and staff and then work on their own, usually taking from three to six months to complete some courses.

Requirements for the General Studies Degree are outlined in the alphabetical listing of academic programs under the heading "General Studies."

Complete information about the degree is available from the Extended Degree Program Office.

#### **Honors 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 options. Students of the arts can work for honors by giving music recitals, theater 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 the opportunity to complete a substantial project to earn distinction in the major.

Students seeking all-university honors must complete an honors project in order to qualify for graduation with summa cum laude honors.

Qualifications for both are described in the academic rules and regulations.

#### **Independent Study**

Independent study allows a student to earn credit for exploring a special interest in depth outside of a classroom setting. Independent studies must be on topics not covered in regular university classes. In order to undertake an independent study, a student must identify a faculty member willing to oversee it, and prepare a statement of objectives and list of activities that will be completed to meet those objectives. Independent study is an opportunity for students to individualize their academic programs through significant learning experiences.

#### **Internships**

Through University-arranged internships, students earn academic credit for working and learning on campus or with businesses and organizations in the community. Internships are arranged with the help of faculty advisers.

Typical on-campus internships have included work in personnel, news writing, graphic design, museum anthropology, and art gallery management. Off campus, interns have worked in settings of wide diversity: in marketing research, personnel management and accounting; in social services units of hospitals and mental health centers; with the Red Cross and United Way; in radio and television and 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 a placement is called a "practicum" or "field experience."

Internships and field studies offer significant practical experience and opportunities to "sample" career fields while in college.

#### **Noncredit Study**

Noncredit courses, workshops, conferences, and seminars, planned by the Office of Outreach and University of Wisconsin-Extension, are scheduled throughout the year on campus and in the community. Noncredit programs and enrollment procedures are described in Lifelong Learning catalogs published for every fall and spring semester.

#### **Personal Major**

A personal 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. Following the University's interdisciplinary approach, a personal major must incorporate several academic areas.

Constructing a personal major is a rigorous process. The student determines what it is he or she wants to do and how the opportunities at UWGB can accomplish this. With the help of a faculty member and a personal major adviser, the student formulates a proposal describing the personal major objectives. A final proposal must be approved by a personal major committee.

The personal major requires a minimum of 30 credits at the junior-senior level. Personal major students must fulfill the University's requirements for residency and English proficiency, as well as all-university requirements.

Information on the personal major is available from the Individualized Learning Programs Office.

#### **Research**

Many UW-Green Bay students gain valuable laboratory and field experience by working with faculty members who are engaged in research. Many University activities and resources which support student research opportunities are described in the chapter on academic resources.

A student interested in research may also enroll in research-oriented courses or engage in research through independent study or a senior honors project. Research experience can greatly enhance a student's qualifications for graduate or professional school and future employment.

# ACADEMIC YEAR CALENDAR

## The Academic Calendar

The University operates on a 4-1-4 academic calendar, with a four-month fall semester, a one-month January interim, and a four-month spring semester. It also offers an eight-week summer session, though some summer classes are on intensive schedules of shorter duration.

The January interim is a period in which students can concentrate on special, practical courses or traditional courses in intensive formats, or take advantage of courses which include travel abroad. Students pay no additional fees for January courses if they are continuing, full-time students or if they are new full-time second semester registrants. Students pay their own expenses for off-campus programs. Taking advantage of January courses may enable students to accelerate the time it takes to earn their degrees.

Prospective students should be aware that a proposal to eliminate the January interim beginning with the 1993-94 academic year was under debate at the time of printing. If the January session is eliminated, spring semester classes would begin about two weeks earlier. Students and prospective students should get current calendar information from the Registrar's Office.

## Fall Semester

	1991-92	1992-93	1993-94*
Classes begin	Sept. 3	Sept. 8	Sept. 7
Thanksgiving recess begins	Nov. 28	Nov. 26	Nov. 25
Classes resume	Dec. 2	Nov. 30	Nov. 29
Classes end	Dec. 11	Dec. 16	Dec. 15
Study and advising days	Dec. 12-13	none	none
Examinations begin	Dec. 16	Dec. 17	Dec. 16
Commencement (Sunday)	Dec. 22	Dec. 20	Dec. 18
Examinations end	Dec. 21	Dec. 23	Dec. 22

## January Interim\*

Classes begin	Jan. 6	Jan. 4	Jan. 3
Last day of classes	Jan. 31	Jan. 29	Jan. 28
Winter recess	Feb. 1-9	Jan. 30-Feb. 7	Jan. 29-Feb. 6
Martin Luther King holiday	Jan. 20	Jan. 18	Jan. 17

## Spring Semester

Classes begin	Feb. 10	Feb. 8	Feb. 7
Spring recess	April 4	April 3	April 2
Classes resume	April 13	April 12	April 11
Memorial Day recess	May 23-25	none	none
Examinations begin	May 26	May 24	May 23
Examinations end	May 30	May 29	May 28
Commencement (Saturday)	May 30	May 29	May 28

## Summer Session (8 week session)

Registration	June 11-12	June 10-11	June 9-10
First day of classes	June 15	June 14	June 13
Last day of classes	Aug. 7	Aug. 6	Aug. 5

\*These dates may be subject to change. Consult the most recent *Timetable* to confirm dates.



# PROGRAMS OF STUDY

- Accounting**, disciplinary major or minor, 18  
**American Indian Studies**, interdisciplinary minor, 19  
**Anthropology**, disciplinary minor, 20  
**Art**, disciplinary major or minor, 20  
**Biology**, disciplinary major or minor, 23  
**Business Administration**, interdisciplinary major or minor, 24  
**Chemistry**, disciplinary major or minor, 26  
**Communication and the Arts**, interdisciplinary major or minor, 27  
**Communication Processes**, disciplinary major or minor, 31  
**Earth Science**, disciplinary major or minor, 34  
**Economics**, disciplinary major or minor, 35  
**Education**, interdisciplinary major or minor, 36  
**Engineering**, professional major, 40  
**English**, disciplinary major or minor, 41  
**Environmental Policy and Planning**,  
interdisciplinary major or minor, 42  
**Environmental Science**, interdisciplinary major or minor, 44  
**French**, disciplinary major or minor, 46  
**General Studies**, interdisciplinary major, 47  
**Geography**, disciplinary major or minor, 47  
**German**, disciplinary major or minor, 48  
**History**, disciplinary major or minor, 49  
**Human Biology**, interdisciplinary major or minor, 51  
**Human Development**, interdisciplinary major or minor, 53  
**Humanistic Studies**, interdisciplinary major or minor, 55  
**Information and Computing Science**,  
interdisciplinary major or minor, 57  
**International Studies**, interdepartmental minor, 58  
**Literature and Language**, disciplinary majors or minors, 59  
**Mathematics**, disciplinary major or minor, 59  
**Military Science**, professional program, 61  
**Music**, disciplinary major or minor, 62  
**Nursing**, professional program, 64  
**Nutritional Sciences**, interdisciplinary major or minor, 64  
**Philosophy**, disciplinary major or minor, 66  
**Physical Education**, 67  
**Physics**, disciplinary major or minor, 68  
**Political Science**, disciplinary major or minor, 69  
**Psychology**, disciplinary major or minor, 70  
**Public Administration**, interdisciplinary major or minor, 71  
**Regional Analysis**, interdisciplinary major or minor, 72  
**Social Change and Development**,  
interdisciplinary major or minor, 74  
**Social Work**, professional major, 76  
**Sociology**, disciplinary major or minor, 77  
**Spanish**, disciplinary major or minor, 78  
**Theatre**, disciplinary major or minor, 79  
**Urban Studies**, interdisciplinary major or minor, 80  
**Women's Studies**, interdisciplinary minor, 81
- Preprofessional Programs**  
 Agriculture, 82  
 Architecture, 82  
 Chiropractic, 83  
 Counseling, 84  
 Dentistry, 84  
 Engineering, 85  
 Law, 85  
 Medical Technology, 86  
 Medicine, 87  
 Mortuary Science, 87  
 Nursing, 88  
 Occupational Therapy, 88  
 Optometry, 89  
 Pharmacy, 89  
 Physical Therapy, 90  
 Physician Assistant, 90  
 Theology, 91  
 Veterinary Medicine, 91

# Accounting

## Disciplinary Major or Minor

**Associate Professor:** Karl Zehms (chairperson).

**Assistant Professors:** James Doering; Ceil Pillsbury; Iris Pirozzoli.

**Lecturers:** Lawrence Franke; Brent Hussin; Marilyn Sagrillo; 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. The program offers a contemporary and rigorous accounting curriculum, excellent teaching, and an emphasis on skills basic to career advancement: effective writing and speaking, quantitative analysis, computer proficiency, decision making, and problem solving.

Graduates are eligible to take professional accounting examinations, including the C.P.A. (Certified Public Accountant), C.M.A. (Certified Management Accountant), and C.I.A. (Certified Internal Auditing) examinations. A recent alumni survey shows that over 25 percent of graduates pass all four parts of the C.P.A. exam during their first sitting; of those who take it a second time, 75 percent pass all four parts. These figures compare favorably with the national averages, where the first-time pass rate is 18 percent.

About 95 percent of UW-Green Bay accounting graduates typically find employment in their chosen careers within six months of graduation.

Faculty members are committed to serving the needs of business and society, and to providing an outstanding learning environment. Upper-level classes often number fewer than 30, which facilitates discussion and opportunities to work closely with faculty. The program supports employed students by offering about one-third of its courses in late afternoon or evening.

The program offers opportunities to meet business professionals and gain practical experience. An active accounting student organization supports these efforts. Faculty members encourage participation in the cooperative education/internship program, through which students learn while working in actual business settings.

The accounting program addresses contemporary accounting and business issues, including the role of accounting in continuous quality improvement, implementation of computer technology and advances in accounting information systems, and accounting ethics. Students gain breadth through courses in the arts and humanities, social sciences, and natural sciences to prepare them for today's businesses which require employees who are effective communicators and problem-solvers with broad-based liberal educations.

### Entrance and Exit Requirements

Entering freshmen should declare a pre-accounting major when they enroll. To be admitted to the accounting major or minor, a student must satisfy one of these requirements:

—matriculated at a college or university prior to fall 1992 and have a 2.3 grade point average on a total of 48 or more earned and in-progress credits.

OR

—matriculated at a college or university fall 1992 and thereafter have a 2.5 grade point average on a total of 36 earned or 48 earned and in-progress credits.

Transfer credits are included in the grade point calculation. 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 48 earned and in-progress credits with a minimum 2.5 grade point average to enroll in the "gateway" courses (107-305, 216-322, 343, 382).

Students matriculated at a college or university starting in fall 1992 and thereafter must meet accounting's exit requirement to graduate with the major in accounting. Students intending to graduate with the major must have both a minimum 2.5 cumulative and a minimum 2.5 major grade point average.

## Requirements for the Major

### Supporting Courses, 24-25 credits

216-215 Introduction to Business Statistics, 3 credits

OR

600-260 Introductory Statistics, 4 credits

216-217 Quantitative Methods in Administration, 3 credits

246-133 Fundamentals of Public Address, 3 credits

266-155 Microcomputers and End-User Applications, 3 credits

298-202 Macroeconomic Analysis, 3 credits

298-203 Macroeconomic Analysis, 3 credits

552-105 Expository Writing, 3 credits

600-201 Calculus for the Management and Social Sciences, 3 credits

OR

Another calculus course

### Upper-Level Courses, 69 credits

#### Core courses, 37 credits:

107-300 Introductory Accounting, 3 credits

107-302 Accounting for Administrators, 3 credits

107-305 Business Law I, 3 credits

107-306 Business Law II, 4 credits

216-322 Introductory Marketing, 3 credits

216-343 Corporation Finance, 3 credits

216-382 Introductory Management, 3 credits

216-452 Advanced Microcomputer Business Applications, 3 credits

298-330 Money and Banking, 3 credits

Additional upper-level marketing course

Additional upper-level finance course

Additional upper-level management course

#### Accounting courses, 32 credits:

107-301 Intermediate Accounting, 4 credits

107-312 Managerial Accounting, 3 credits

107-313 Financial Accounting I, 3 credits

107-314 Financial Accounting II, 3 credits

107-316 Governmental and Institutional Accounting, 3 credits

107-410 Introduction to Income Tax Theory and Practice, 3 credits

107-411 Financial Information Systems, 3 credits

107-412 Auditing Standards and Procedures, 4 credits

107-414 Advanced Managerial Accounting, 3 credits

107-415 Advanced Income Tax Theory and Practice, 3 credits

### Interdisciplinary Minor

All accounting majors must complete an interdisciplinary minor.

## Requirements for the Minor

### Supporting Courses, 9 credits

- 266-155 Microcomputers and End-User Applications, 3 credits  
 298-202 Macroeconomic Analysis, 3 credits  
 OR  
 298-203 Macroeconomic Analysis, 3 credits  
 552-105 Expository Writing, 3 credits

### Upper-Level Courses, 22 credits

- 107-300 Introductory Accounting, 3 credits  
 107-301 Intermediate Accounting, 4 credits  
 107-302 Accounting for Administrators, 3 credits

#### One of these:

- 107-305 Business Law I, 3 credits  
 216-322 Introductory Marketing, 3 credits  
 216-382 Introductory Management, 3 credits

#### One of these:

- 107-312 Managerial Accounting, 3 credits  
 107-313 Financial Accounting I, 3 credits

#### Two of these:

- 107-314 Financial Accounting II, 3 credits  
 107-316 Governmental and Institutional Accounting, 3 credits  
 107-410 Introduction to Income Tax Theory and Practice, 3 credits  
 107-411 Financial Information Systems, 3 credits  
 107-414 Advanced Managerial Accounting, 3 credits

# American Indian Studies

## Interdisciplinary Minor

**Professors:** Jack Frisch; Estella Lauter; Terence O'Grady.

**Associate Professors:** Clifford Abbott; Orville Clark; Peter Kellogg.

**Assistant Professor:** Carol Cornelius (chairperson).

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 departments. Studies include courses on the arts, music, literature, history, languages, and religious traditions of Wisconsin tribes, plus a set of seminars dealing with special problems 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 want to learn about the Native Americans.

The minor can be combined to advantage with a number of disciplines and professional studies, including anthropology, 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

### Lower-Level Courses, 6 credits

#### Core courses:

- 242/493-225 American Indian Studies: Arts and Ceremonial Traditions, 3 credits  
 242/493-226 American Indian Studies: History and Verbal Traditions, 3 credits

### Upper-Level Courses, 12 credits

#### Minimum of 3 credits and maximum of 6 credits from:

- XXX-391 American Indian Seminar, 3 credits

Repeatable seminar has variable topics such as:

- Tribal Law and Legal Rights
- Land Use and Planning
- Accounting Systems
- Health Care Administration
- Development of Industrial Parks
- Housing
- Transportation Planning
- Waste Disposal Systems
- Personnel Management
- Educational Administration
- Social Service

#### Minimum of 6 credits and maximum of 9 credits of electives from:

- 242-301 Communication and the Arts Projects in the Community: Oneida Language, 3 credits  
 493-371 American Indian Art and Artists, 3 credits  
 493-372 American Indian Mythology and Literature, 3 credits  
 493-374 Wisconsin Indians: Historical and Cultural Perspectives, 2-3 credits

# Anthropology

## Disciplinary Minor

**Professor:** Anthony H. Galt (chairperson); Richard Logan.

**Associate Professors:** Joseph Mannino; Lynn Walter.

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 in 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. Interested students may also contact the chairperson for information sheets that explain the advantages of combining various interdisciplinary programs with anthropology. Students seeking teacher preparation should be sure to consult advisers in both anthropology and education early to make sure they meet all requirements.

## Requirements for the Minor

### Supporting Courses, 6 credits

- 156-100 Varieties of World Culture, 3 credits  
478-102 Introduction to Human Biology, 3 credits

### Upper-Level Courses, 15 credits

- 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  
156-342 Human Evolution, 3 credits  
OR  
156-364 Human Variability, 3 credits  
242-323 Language and Human Conflict, 3 credits

# Art

## Disciplinary Major or Minor

**Professors:** Jerry Dell; Robert Purn; Karon Winzenz.

**Associate Professors:** Ronald Baba; David Damkoehler (chairperson); Carol Emmons; Curt Heuer; Thomas Tasch.

**Academic Staff:** Christine Davitt; Robert Ratajczak.

The visual arts provide a way to explore the processes of making, seeing, feeling, 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.

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.
- **art management**, 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 through 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 aesthetic awareness or graphic communication. 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 may find an art minor an excellent supplement to their academic programs in the context of our visually oriented media-driven culture.*

The art minor may serve:

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

Facilities include well-equipped studios in painting, drawing, sculpture, ceramics, photography, art metals/jewelry, fibers/textiles, papermaking and printmaking. Available to all art students who have completed 168-101, Tool Safety and Materials, is a professional wood and metal-working laboratory, managed by a full-time staff person who can provide training and technical assistance. The art management emphasis provides opportunities to work in the Lawton Gallery and the 407 gallery under the direction of faculty and academic staff. Internships and practicums in regional art organizations are possible in the art management emphasis.

## Requirements for the Major

(vary with the area of emphasis)

### Areas of Emphasis

#### ■ Studio Art

##### Lower-Level Courses, 30 credits required

###### Art history core, 9 credits:

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

###### Design core, 9 credits:

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

###### Studio core, 12 credits, choose 6 credits from each group below:

###### 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 required

###### Art history, 6 credits:

- 168-390 19th and 20th Century Art, 3 credits  
 168-490 Contemporary Art: Post 1945, 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, 9-12 credits must be selected from one studio area.

###### 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  
 168-343 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  
 168-364 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  
 168-343 Photography II, 3 credits  
 \*168-431 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

###### 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  
 168-353 Textiles: Fiber Techniques, 3 credits  
 168-355 Intermediate Textiles: Papermaking, 3 credits  
 \*168-453 Advanced Textiles, 3 credits

###### Printmaking:

- 168-311 Intermediate Painting, 3 credits

Choose one or two printing 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  
 (Students work in technical areas for which the appropriate intermediate course has been taken.)

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

#### ■ Art Management

##### Lower-Level Courses, 30 credits required

See the major in studio art for listing of art requirements on the freshman/sophomore level.

##### Upper-Level Courses, 27 credits required

###### Art history, 6 credits:

- 168-390 19th and 20th Century Art, 3 credits  
 168-490 Contemporary Art: Post 1945, 3 credits

###### Studio courses, 12 credits:

- 168-302 Intermediate Drawing, 3 credits

Select two studio areas, preferably one in two-dimensional and one in three-dimensional areas, with no more than 9 credits in any one area.

###### Art management core, 9 credits:

- 168-395 Exhibition Development and Design, 2 credits  
 168-396 Gallery Practicum, 2 credits  
 168-495 Advanced Art Management, 2 credits  
 (repeatable up to six credits)  
 168-497 Gallery Management Internship, 3-9 credits

###### Related Courses (recommended)

###### Communication skills:

- 246-133 Fundamentals of Public Address, 3 credits  
 552-105 Expository Writing, 3 credits  
 552-304 Advanced Expository Writing, 3 credits

###### Anthropology:

- 156-100 Varieties of World Culture, 3 credits  
 156-320 Myth, Ritual and Religion, 3 credits

###### Art history:

- 168-498 Independent Study, 1-4 credits

Students should consult with faculty in art management before selecting recommended courses. These 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. Except for 302-316, requirements for entry into the professional education program and for fulfilling that program are not listed here. Information about teacher preparation is listed in the Education program description in this book.

#### **Lower-Level Courses, 34 credits required**

##### **Art history core, 6 credits:**

- 242-102 History of Visual Arts: Ancient to Medieval, 3 credits  
 242-103 History of Visual Arts: Renaissance to French Revolution, 3 credits

##### **Design core, 10 credits:**

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

##### **Studio core, 18 credits:**

- Two-Dimensional Studios (9 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 9 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 required**

##### **Art history, 6 credits:**

- 168-390 19th and 20th Century Art, 3 credits  
 168-490 Contemporary Art: Post 1945, 3 credits

##### **Education, 3 credits:**

- 302-316 Teaching Art in the Middle and Secondary Schools, 3 credits  
 (see the art education adviser for complete requirements)

##### **Studio art, 15 credits:**

- 168-302 Intermediate Drawing, 3 credits

Twelve elective credits including four studio courses from the 300-400 level in drawing, painting, printmaking, photography, art metals, textiles, sculpture, and ceramics for which appropriate prerequisites have been completed.

## **Requirements for the Minor**

(vary with area of emphasis)

### **Areas of Emphasis**

#### ■ *Two-Dimensional Emphasis*

##### **Lower-Level Courses, 15 credits**

###### **Background, 3 credits:**

- 242-202 Concepts and Issues of Modern Art, 3 credits

###### **Design core, 6 credits:**

- 168-105 Drawing, 3 credits  
 168-107 Two-Dimensional Design, 3 credits

###### **Introductory studios, 6 credits chosen from:**

- 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 from studios in painting, drawing, photography, and printmaking, for which appropriate prerequisites have been taken.

#### ■ *Three-Dimensional Emphasis*

##### **Lower-Level Courses, 15 credits**

###### **Background, 3 credits:**

- 242-202 Concepts and Issues of Modern Art, 3 credits

###### **Design core, 6 credits:**

- 168-105 Drawing, 3 credits  
 168-106 Design Methods, 3 credits

###### **Introductory studios, 6 credits chosen from:**

- 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, 6 credits**

Select two courses on the 300-400 level from studios in sculpture, ceramics, textiles, and art metals, for which appropriate prerequisites have been completed.

#### ■ *Art History*

##### **Lower-Level Courses, 15 credits**

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

##### **Upper-Level Courses, 6 credits**

- 168-390 19th and 20th Century Art, 3 credits  
 168-490 Contemporary Art: Post 1945, 3 credits

# Biology

## Disciplinary Major or Minor

**Professors:** Hallett J. Harris; Michael Morgan; V.M.G. Nair; Paul E. Sager; Leander Schwartz (chairperson).

**Associate Professors:** Robert Howe; Charles Ihrke; Dorothea Sager; Richard Stevens.

**Assistant Professors:** James Marker; Donna Ritch.

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).

The program has well-equipped laboratories for teaching and student/faculty research. Other teaching and research facilities include the 200-acre Cofrin Arboretum on the campus, off-campus natural areas managed by the University, the Richter Natural History Museum, small animal laboratory, herbarium, and greenhouse. Students and faculty have access to microcomputers and the University's mainframe computer, a Digital Equipment Corp. VAX system.

A particular advantage of the UW-Green Bay 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.

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, U.S. Food and Drug Administration, National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, U.S. Bureau of Land Management, U.S. 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.

Biology majors combine their studies with an interdisciplinary minor. Students interested in areas such as biological resources management, solid waste management, or science communication normally will take a minor in environmental science. Human biology is the minor commonly chosen by biology majors with interests in health sciences or adult fitness. Other interdisciplinary areas that may be useful, depending upon a student's career goals, include nutritional sciences, regional analysis (land use planning, etcetera), business administration, or urban and public affairs.

Students who prefer a biology minor (rather than a major) coupled with an interdisciplinary major, will find the majors in environmental science and human biology especially attractive.

Students seeking teacher licensure in biology or broad field sciences should consult advisers in both biology and education early in their programs to insure that they meet all requirements of the Wisconsin Department of Public Instruction.

## Requirements for the Major

### Introductory Courses, 8 credits

- 204-202 Principles of Biology I, 4 credits  
204-203 Principles of Biology II, 4 credits

### Supporting Courses, 20 credits

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

### Three additional credits of mathematics from:

- 266-155 Microcomputers and End-User Applications, 3 credits  
266-256 Introduction to Computer Science I, 4 credits  
600-202 Calculus and Analytic Geometry I, 4 credits  
600-242 Discrete Mathematics, 4 credits

### Three credits of writing from:

- 246-390 Scientific and Technical Communication, 3 credits  
552-105 Expository Writing, 3 credits

### Biology majors are strongly advised to also take:

- 225-300 Bio-Organic Chemistry, 3 credits  
225-301 Bio-Organic Chemistry Laboratory, 1 credit  
OR  
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  
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, 13-14 credits

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

### Areas of Emphasis, 10-11 credits

Biology majors must complete 10 or 11 credits in one of the following areas of emphasis to bring their total credits in upper-level biology courses to a minimum of 24.

#### ■ Plant Biology

- 204-304 Genetics Laboratory, 1 credit  
205-305 Biological Microtechnique, 3 credits  
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

- 204-304 Genetics Laboratory, 1 credit
- 204-305 Biological Microtechnique, 3 credits
- 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
- 204-347 Developmental Biology, 4 credits
- 478-312 Evolutionary Processes, 3 credits
- 478-318 Mammalian Reproduction, 3 credits
- 478-402 Human Physiology, 3 credits
- 478-413 Neurophysiology, 3 credits

### ■ Field Biology and Ecology

- 204-310 Plant Taxonomy, 3 credits
- 204-320 Field Botany, 3 credits
- 204-342 Ornithology, 3 credits
- 204-343 Mammalogy, 3 credits
- 362-363 Plants and Forest Pathology, 3 credits
- 362-401 Stream Ecology, 3 credits
- 362-403 Limnology, 3 credits
- 362-475 Ecological Dynamics, 4 credits

### ■ Cell/Molecular Biology

- 204-302 Principles of Microbiology, 4 credits
- 204-305 Biological Microtechnique, 3 credits
- 204-307 Cell Biology, 4 credits
- 204-312 Mycology, 3 credits
- 204-405 Microbial Physiology, 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

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

For teacher preparation in the biology minor, the minimum number of credits in biology is 22.

### Introductory Courses, 8 credits

These are the same as for the major.

### Upper-Level Courses, 13-14 credits

These are the same as for the major.

## Business Administration

### Interdisciplinary Major or Minor

**Professors:** Daniel Alesch; James Murray.

**Associate Professors:** William Conley; A. Sam Ghanty; John Harris; Robert Obenberger; Michael Troyer; Karl Zehms (chairperson).

**Assistant Professors:** James Doering; James Holty; Robert Nagy; Ceil Pillsbury; Iris Pirozzoli; Peter Smith; Sandhya Sridhar.

**Lecturers:** Lucy Arendt; Laurey Berk; Frank Buethe; Lawrence Franke; Brent Hussin; Donald McCartney; Daniel Spielmann; Marilyn Sagrillo; Ann Selk.

UW-Green Bay's major and minor in business administration offer the skills and broad business background needed for a lifetime of opportunity. About 90 percent of students typically find employment in business, industry, government, and other fields, or enter graduate programs within six months of graduation. UWGB students are accepted into reputable graduate schools. Many alumni are successful business leaders.

The program offers an array of contemporary, professional business courses and emphasizes skills basic to career advancement: effective writing and speaking, quantitative analysis, computer proficiency, decision making, and problem solving. Each business major prepares thoroughly for a business specialization by choosing an area of emphasis in finance, management, or marketing. Students gain the breadth required of today's business employees through courses in the arts and humanities, social sciences, and natural sciences.

In addition, students develop expertise and problem-solving proficiency in at least one other field by completing a nonbusiness minor. The minor can be used to enhance career opportunities in many ways. For example, students with quantitative and communication interests may complete a minor in communication processes or information and computing science, to prepare for careers in information systems development, technical business communication, and the like. Those interested in human services may minor in human development or psychology, and pursue such careers as child and elder care administration, or corporate wellness. Students with minors in a foreign language or humanistic studies can successfully embark upon careers in international business. Many more combinations are possible. Advisers help students plan their programs to meet personal and professional goals.

UW-Green Bay offers extensive opportunities to meet business professionals and gain practical experience. Active student organizations provide settings for meeting others with like interests and developing contacts with business professionals. The majority of upper-level courses include a practical project component, providing the opportunity to apply the theories and concepts learned in the classroom to real situations. Participation in cooperative education and internships is encouraged.

The program addresses contemporary business issues, including economic globalization, continuous quality improvement, and business ethics. These and other issues are addressed in specific classes and throughout courses. Faculty are committed to serving the needs of business and society, and to providing a learning environment. Upper-level classes frequently number fewer than 35, allowing for discussion and opportunities to work closely with faculty. The program supports employed students by offering about one-third of its courses in late afternoon and evening.



**Program Entrance and Exit Requirements**

Entering freshmen should declare a pre-business major when they enroll. To be admitted to the business administration major or minor, a student must satisfy one of these:

—matriculated at a college or university prior to fall 1992 and have a 2.3 grade point average on a total of 48 or more earned and in-progress credits.

OR

—matriculated at a college or university fall 1992 and thereafter have a 2.5 grade point average on a total of 36 earned or 48 earned and in-progress credits.

Transfer credits are included in the grade point calculation. 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 48 earned and in-progress credits with a minimum 2.5 grade point average to enroll in the "gateway" courses (216-305, 322, 343, 382).

Students matriculated at a college or university starting in fall 1992 and thereafter must meet business administration's exit requirement to graduate with the major in business administration. Students intending to graduate with the major must have both a minimum 2.5 cumulative and a minimum 2.5 major grade point average.

**Requirements for the Major****Supporting Courses, 21-22 credits**

216-215 Introduction to Business Statistics, 3 credits

OR

600-260 Introductory Statistics, 4 credits

216-217 Quantitative Methods in Administration, 3 credits

246-133 Fundamentals of Public Address, 3 credits

266-155 Microcomputers and End-User Applications, 3 credits

298-202 Macroeconomic Analysis, 3 credits

298-203 Microeconomic Analysis, 3 credits

552-105 Expository Writing, 3 credits

**Core Courses, 18 credits**

107-300 Introductory Accounting, 3 credits

107-302 Accounting for Administrators, 3 credits

107-305 Business Law I, 3 credits

216-322 Introductory Marketing, 3 credits

216-343 Corporation Finance, 3 credits

216-382 Introductory Management, 3 credits

**Areas of Emphasis, 15 credits**

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

**■ Finance Emphasis**

Required:

216-347 Financial Markets and Institutions, 3 credits

216-442 Principles of Investment, 3 credits

216-446 Advanced Corporation Finance, 3 credits

216-449 Cases in Finance, 3 credits

Select one:

216-445 International Financial Management, 3 credits

216-447 Investment Analysis and Portfolio Management, 3 credits

216-450 Bank Administration, 3 credits

**■ Management Emphasis**

Management students select one of these specializations:

**General Management**

216-389 Organizational Behavior, 3 credits

216-482 Management Planning and Control, 3 credits

216-488 Rational Decision Making, 3 credits

216-489 Management and Organizational Theory, 3 credits

216-362 Human Resource Management, 3 credits

OR

216-487 Ethics and Social Issues in Business, 3 credits

**Human Resource Management**

216-362 Human Resource Management, 3 credits

216-366 Collective Bargaining, 3 credits

216-389 Organizational Behavior, 3 credits

216-462 Seminar in Personnel Management, 3 credits

216-467 Compensation and Benefits Planning, 3 credits

**Organizational Analysis**

216-389 Organizational Behavior, 3 credits

216-482 Management Planning and Control, 3 credits

216-489 Management and Organizational Theory, 3 credits

246-335 Organizational Communication, 3 credits

820-415 Organizational Psychology, 3 credits

**Decision Science**

216-317 Computer Techniques for Business Decisions, 3 credits

216-384 Industrial Management, 3 credits

216-452 Advanced Microcomputer Business Applications, 3 credits

216-485 Managerial Economics, 3 credits

216-488 Rational Decision Making, 3 credits

**■ Marketing Emphasis**

Required:

216-424 Marketing Research, 3 credits

216-425 Promotional Strategy, 3 credits

216-428 Consumer Behavior, 3 credits

In addition, marketing students select a specialization from the four choices below:

**Marketing Management/MBA Preparation**

216-426 Marketing Management, 3 credits

216-485 Managerial Economics, 3 credits

**Sales and Sales Management**

216-325 Public Relations, 3 credits

216-327 Selling and Sales Management, 3 credits

**Advertising and Advertising Management**

216-423 Advertising, 3 credits

216-426 Marketing Management, 3 credits

**Marketing Analysis/Research**

216-426 Marketing Management, 3 credits

820-300 Experimental Psychology, 4 credits

**Additional Business Courses, 9 credits**

Three more upper-level business courses are required: two must be outside the emphasis. For example, a student emphasizing management must take another finance course, another marketing course, and another course from any emphasis.

**Minor**

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

## Requirements for the Minor

### Supporting Courses, 18-19 credits

- 216-202 Business and Its Environment, 3 credits  
OR  
216-282 Personal Financial Planning, 3 credits  
216-206 Law and the Individual, 3 credits  
OR  
107-305 Business Law I  
266-155 Microcomputers and End-User Applications, 3 credits  
298-202 Macroeconomic Analysis, 3 credits  
298-203 Macroeconomic Analysis, 3 credits  
216-215 Introduction to Business Statistics, 3 credits  
OR  
600-260 Introductory Statistics, 4 credits  
OR  
255-205 Social Science Statistics, 4 credits

### Upper-Level Courses, 12 credits

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

## Chemistry

### Disciplinary Major or Minor

**Professor:** Jack C. Norman (chairperson); Ronald H. Starkey; Thomas E. Van Koevering.

**Associate Professors:** Dawson C. Deese; Warren V. Johnson; James H. Wiersma.

Chemists have a major impact on the quality of our lives. They make significant contributions to medicine, bioengineering, geology, biology, agriculture, wastewater treatment, food chemistry, solid waste disposal, and environmental chemistry. Chemists developed many of the materials that have improved our standard of living, including pharmaceuticals, semiconductors, fuels, solvents, adhesives, paper products, and many others.

A special benefit of the UW-Green Bay chemistry program is the opportunity for undergraduates to engage in actual research. The majority of UWGB chemistry majors have opportunities to work as research assistants on faculty projects, or to do their own independent projects. During advanced coursework and in research projects, students gain hands-on experience using a variety of modern chemical instruments such as mass spectrometers, infrared and visible-ultraviolet spectrophotometers, nuclear magnetic resonance, chromatography, and gamma-ray and liquid scintillation counters.

UWGB faculty are active in research on pulp and paper, water quality, air pollution, radon, and molecular biology. Experience in actual research can be beneficial when entering the job market and in applying to graduate and professional schools. About half of UWGB chemistry majors do continue their studies in graduate or professional schools.

The UW-Green Bay chemistry program is accredited by the American Chemical Society and students who want to add depth to their programs and gain an additional credential may pursue an individual ACS-certified major. Students who satisfactorily complete the major are registered with the ACS and have the major recorded on their official university credentials.

Chemistry majors combine their studies with an interdisciplinary minor. Students aiming for professional schools in the health sciences—medicine, dentistry, veterinary medicine, pharmacy—would logically combine chemistry studies with the program in human biology. Environmental science would be an appropriate interdisciplinary minor for students planning careers as chemists after graduation, or pursuing graduate studies in chemistry. Nutritional sciences could be another appropriate combination, depending upon a student's career goals.

Students seeking teaching licensure should consult with advisers in both chemistry and the professional education program early, to make certain they fulfill all requirements.

## Requirements for the Major

### 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

### Lower-Level Courses, 10 credits

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

**Upper-Level Courses, 28 credits****Required, 24 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, 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

**American Chemical Society-Certified Major****Major requirements as stated above, plus:**

- 225-410 Inorganic Chemistry, 3 credits  
 225-411 Inorganic Chemistry Laboratory, 1 credit  
 225-498 Independent Study, 1-4 credits  
 OR  
 266-155 Microcomputers and End-User Applications, 3 credits  
 Other computer language course  
 600-305 Ordinary Differential Equations, 3 credits

**Requirements for the Minor****Lower-Level Courses, 10 credits**

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

**Upper-Level Courses, 12 credits****Required:**

12 credits at 300-level or higher including one course each in the areas of organic chemistry and analytical chemistry.

**Electives also may include:**

- 362-434 Environmental Chemistry, 3 credits  
 362-435 Environmental Chemistry Laboratory, 1 credit  
 694-328 Physiological Chemistry, 3 credits  
 (instead of 225-330)

# Communication and the Arts

**Interdisciplinary Major or Minor**

**Professors:** Robert Bauer; Trinidad Chavez; Arthur Cohrs; Jerry Dell; Louis Erdmann; Jack Frisch; Lovell Ives; Donald Larmouth; Terence O'Grady; Robert Pum; Richard Sherrell; Karon Winzenz.

**Associate Professors:** Margaret Charnon; David Damkoehler; Carol Emmons; Jeffrey Entwistle (chairperson); Eugenia Erdmann; Curtis Heuer; Garry Owens.

**Assistant Professors:** Jeffrey Benzow; Susan Kline-Heim; Helaine Marshall; Sarah Meredith; John Salerno.

**Lecturers:** Cheryl Grosso; Carol Hoehn; Marcia Meyer; Jeanellyn Schwarzenbach.

Communication and the Arts is concerned with the structure, roles, and social and aesthetic consequences of all forms of communication, particularly language, mass media, graphics, art, music, theatre, and creative writing.

The program has several areas of emphasis which can be pursued as interdisciplinary majors or minors. These often are combined with disciplinary programs such as art, music, theatre, and communication processes, among others.

**Emphases for Communication and the Arts Majors or Minors**

■ **Aesthetic awareness** develops a broad understanding and appreciation of the arts with an emphasis on aesthetic perception. The emphasis is most frequently chosen as a minor and combined with disciplinary majors in art, music, theatre, or literature. It is particularly valuable for students entering teaching. As a major, aesthetic awareness is most appropriate for individuals who seek to cultivate broad aesthetic sensibilities or who intend to pursue graduate degrees in related arts studies.

■ **Broad-field communications** focuses on integrating several areas of communications, including language; spoken communication and cultural distinctions; mass media; and visual communications. As an emphasis for a minor, it is frequently combined with majors in communication processes, art, literature and language, and business. It supports career preparation for students entering mass media, graphic communication, English-communication arts teaching, communications management, English as a Second Language, or linguistics.

**Emphases for Majors Only**

■ **Environmental design** is offered cooperatively with urban and public affairs and examines the forces that shape the settings in which humans live and act. Emphasis is on understanding and using the design process as a creative, decision-making tool. Students might combine this emphasis as a major with programs in art, psychology, sociology, pre-architecture, or pre-engineering to prepare for graduate study or for careers in architecture, engineering, environmental design, urban planning, visual arts, interior design, or industrial design.

■ **Integrated communications** brings together studies of image and text to examine both the theory and process of informative and expressive communication. Study of the history, applications, and influences of print and video communications, including the transition between traditional and computer methods of generating messages integrating image and text, support the development, design, and production of a wide range of communication materials. Students will need to acquire the knowledge to use computer-aided design and computer imaging in both DOS and Macintosh environments, knowledge of traditional photographic and print imaging and production methods, writing skills, and ability in generating solutions and strategic thinking.

Studies in this emphasis provide a contemporary liberal arts education and support advanced studies and professional work in a wide range of communication and expressive careers, among them publications management, electronic publishing, journalistic and creative writing, corporate communications, and in advertising, marketing, and public relations, copy writing, editing, advertising and editorial photography, design, art direction, and creative direction. Graduate studies associated with these fields of knowledge also are possibilities.

Available facilities include an electronic publishing graphics computer laboratory, and photography darkroom, studio, and image processing computer laboratory. Internships and practicums provide opportunities for work in the field among professionals.

■ **Musical theatre** prepares students for high-order participation in the musical theatre realm of the performing arts. This emphasis focuses on the study of history, directing, criticism, music theory, and accompanying skills in addition to the more obvious preparation in the areas of vocal production, acting, and dance. Students might combine this program with careers in secondary and elementary education or prepare for graduate school and careers in professional musical theatre performance.

■ **Science communication** is offered in conjunction with environmental science. Its majors prepare to convey scientific and technical information, particularly to nonprofessional audiences. Career possibilities include environmental or scientific journalism, scientific and technical communication, or environmental interpretation.

#### Emphasis for Minors Only

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

## Requirements for the Major

### Areas of Emphasis

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

#### ■ *Aesthetic Awareness*

##### Lower-Level Courses, 12 credits

###### Required:

242-261 Aesthetic Awareness: Foundations

###### The remaining 9 credits to be selected from:

242-102 History of the Visual Arts: Ancient to Medieval, 3 credits

242-103 History of the Visual Arts: Renaissance to French Revolution, 3 credits

242-121 Masters and Masterpieces of Music, 3 credits

242-141 Introduction to the Performing Arts: Theatre and Music, 3 credits

242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits

242-202 Concepts and Issues of Modern Art, 3 credits

242-210 Film and Society, 3 credits

242-221 Popular Music Since 1955, 3 credits

242-272 Women in the Visual or Performing Arts, 3 credits

Up to six credits of lower-level course work may be chosen from related disciplines with the approval of the faculty adviser.

##### Upper-Level Courses, 24 credits

###### Required:

242-361 Aesthetic Awareness: Interpretation, 3 credits

242-362 Aesthetic Awareness: Psychology of Aesthetic Perception, 3 credits

242-364 Aesthetic Awareness: Creation, 3 credits

242-474 Aesthetic Awareness: Traditional Art Styles, 3 credits

242-475 Aesthetic Awareness: Avant-Garde Art Styles, 3 credits

###### Nine additional credits chosen from:

242-329 Cross-Cultural Communication: Expressive Traditions, 3 credits (may be repeated with a different subject)

242-370 Modern American Culture, 3 credits

242-380 The Arts: London, 3 credits

242-430 Information, Media and Society, 3 credits

242-477 Women as Creative Agents, 3 credits

242-498 Independent Study, 1-4 credits

Up to nine credits of upper-level course work may be chosen from related disciplines with the approval of the faculty adviser.

#### ■ *Broad-Field Communications*

##### Lower-Level Courses, 12 credits

###### Required:

242-160 Introduction to Language, 3 credits

###### The remaining 9 credits to be selected from:

242-210 Film and Society, 3 credits

242-221 Popular Music Since 1955, 3 credits

242-231 Introduction to Graphic Communications, 3 credits

242-243 Native American Cultures: Film and Performance I, 3 credits

242-244 Native American Cultures: Film and Performance II, 3 credits

246-102 Introduction to Mass Communication, 3 credits

##### Upper-Level Courses, 24 credits

###### Core courses, select 4 courses from:

242-323 Language and Human Conflict, 3 credits

242-370 Modern American Culture, 3 credits

242-375 Communication Skills: Language of Metaphor, 3 credits

242-430 Information, Media and Society, 3 credits

242-450 The Construction of Public Images, 3 credits

###### Elective courses, select 4 courses from:

242-329 Cross Cultural Communication: Expressive Traditions, 3 credits (repeatable with different subject)

242-331 Graphic Communications Studio I, 3 credits

242-332 Graphic Communications Studio II, 3 credits

242-362 Aesthetic Awareness: Psychology of Aesthetic Perception, 3 credits

242-380 The Arts: London, 3 credits

#### ■ *Environmental Design*

##### Lower-Level Courses, 15 credits

###### Required:

168-106 Design Methods, 3 credits

950-210 Drawing Systems for the Designer, 3 credits

###### The remaining 9 credits to be selected from:

242-102 History of Visual Arts: Ancient to Medieval, 3 credits

242-103 History of Visual Arts: Renaissance to French Revolution, 3 credits

242-202 Concepts and Issues of Modern Art, 3 credits

242-231 Introduction to Graphic Communications, 3 credits

950-200 Introduction to Urban Studies, 3 credits

##### Upper-Level Courses, 24 credits

###### Fifteen credits chosen from:

242-331 Graphic Communications Studio I, 3 credits

242-332 Graphic Communications Studio II, 3 credits

242-432 Graphic Communications Workshop, 3 credits

242-497 Internship in Graphic Communications, 3-12 credits

834-325 Behavior in Designed Environments, 3 credits

950-363 Urban Aesthetics, 3 credits

950-412 Urban Planning, 3 credits

**Nine credits chosen from:**

- 950-436 Environmental Design Studio I, 3 credits  
(individual scale)  
242-437 Environmental Design Studio II, 3 credits  
(small-group scale)  
950-438 Environmental Design Studio III, 3 credits  
(community scale)  
242-439 Environmental Design Studio IV, 3 credits  
(senior project)

**■ Integrated Communications****Lower- and Upper-Level Courses, 51 credits total****Foundations, 20 credits required:**

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

**History and Theory, 9 credits required:**

- History (minimum of 3 credits)  
242-103 History of the Visual Arts: Renaissance to French  
Revolution, 3 credits  
242-370 Modern American Culture, 3 credits  
Theory (minimum of 3 credits)  
242-430 Information, Media and Society, 3 credits  
242-450 Construction of Public Images, 3 credits  
246-380 Communication Law, 3 credits

**Graphics core, 9 credits required:**

- 242-331 Graphic Communications Studio I, 3 credits  
242-332 Graphic Communications Studio II, 3 credits  
242-432 Graphic Communications Workshop, 3 credits

**Writing/Text Processing, 6 credits required:**

- 242-375 Communication Skills: Language of Metaphor, 3 credits  
246-303 Feature Writing, 3 credits  
246-390 Scientific and Technical Writing, 3 credits

**Image Processing, 6 credits required:**

- 168-375 Screen Printing, 3 credits  
168-377 Lithography, 3 credits  
168-470 Advanced Printmaking, 3 credits  
168/246-343 Photography II, 3 credits  
168/246-344 Photography III, 3 credits  
246-346 Photographic Design for Print Media, 3 credits

**Applied/Practicum, 3-6 credits (3 credits required):**

- 242-483 Practicum in Integrated Publishing, 3 credits  
242-497 Internship in Graphic Communications, 3 credits  
246-460 Publications Management, 3 credits

**Disciplinary or Interdisciplinary Minor, 21 credits minimum:**

A required minor should be selected with the aid of a faculty adviser. Possible minors include Art (printmaking, drawing, photography), Communication Processes (journalism, electronic media, photography), Business Administration, Literature and Language, or others supporting personal interest and educational or career goals.

**■ Musical Theatre****Lower-Level Courses, 46-49 credits****Music supporting courses:**

- 670-115 Ear Training and Sightsinging I, 1 credit  
670-116 Ear Training and Sightsinging II, 1 credit  
670-151 Materials and Values in Music I, 3 credits  
670-152 Materials and Values in Music II, 3 credits  
672-105/106/205/206 Applied Voice Lessons, 8 credits

- 672-261 Concert Choir, 1 credit

OR

- 672-262 University Chorus, 1 credit

Keyboard Proficiency (variable credit), 1-4 credits

**Theatre supporting courses:**

- 915-128 Beginning Jazz Dance, 2 credits  
915-131 Beginning Acting, 3 credits  
915-137 Beginning Ballet, 2 credits  
915-141 Movement for Theatre, 2 credits  
915-145 Beginning Modern Dance, 2 credits  
915-222 Theatre Production Techniques II: Costume/Make-up,  
3 credits  
915-228 Intermediate Jazz Dance, 2 credits  
915-231 Intermediate Acting, 3 credits  
915-245 Intermediate Modern Dance, 2 credits

**Communication and the Arts supporting courses:**

- 242-141 Introduction to the Performing Arts: Theatre and Music,  
3 credits  
242-142 Performing Arts Perspectives: Experience and Evaluation,  
3 credits

**Upper-Level Courses, 33 credits****Major musical, 3 credits:**

- 672/915-335 Performance Practicum, 3 credits

**Music courses, 9 credits required:**

- 670-333 Basic Conducting, 2 credits  
670-346 Keyboard Accompanying I, 1 credit  
672-305/306 Applied Voice Lessons, 2, 2 credits  
672-483 Opera Workshop, 2 credits  
(672-461 Concert Choir or 672-462 University Chorus or 672-164/364  
Show Choir may be substituted)

**Theatre courses, 15 credits required:**

- 915-305 Audition Techniques for the Actor, 3 credits  
915-310 Theatre History II, 3 credits  
915-331 Advanced Acting, 3 credits  
915-351 Directing I, 3 credits  
915-352 Directing II, 3 credits

**Communication and the Arts courses, 6 credits:**

- 242-329 Cross-Cultural Communication: American Show Music,  
3 credits  
242-478 Distinction in the Major, 3 credits  
OR  
242-484 Senior Honors Project, 3 credits  
OR  
242-498 Independent Study, 3 credits

**■ Science Communication**

This is a cooperative program offered by Communication and the Arts and Environmental Science.

**Lower-Level Courses, 37-39 credits****Fifteen credits in communications chosen from:**

- 242-231 Introduction to Graphic Communications, 3 credits  
246-100 Writing Skills Laboratory, 4 credits  
246-102 Introduction to Mass Communication, 3 credits  
246-133 Fundamentals of Public Address, 3 credits  
246-200 Introduction to Communication Processes, 3 credits  
246-243 Introduction to Photography, 3 credits  
552-105 Expository Writing, 3 credits

Twenty-two to 24 credits in basic sciences to be selected with a science adviser, including at least two courses in each of three areas of science chosen from Biology, Physics, Mathematics, Chemistry, and Earth Science.

**Upper-Level Courses, 30 credits****Eighteen credits chosen from:**

- 216-425 Promotional Strategy, 3 credits
- 242-331 Graphic Communications Studio I, 3 credits
- 242-332 Graphic Communications Studio II, 3 credits
- 242-430 Information, Media and Society, 3 credits
- 242-497 Internship in Graphic Communications, 3-12 credits
- 246-303 Feature Writing, 3 credits
- 246-305 Elements of Electronic Media, 3 credits
- 246-306 Radio Broadcasting, 3 credits
- 246-333 Argumentation and Persuasion, 3 credits
- 246-335 Organizational Communication, 3 credits
- 246-343 Photography II, 3 credits
- 246-345 Designing Multiple Media Applications of Photography, 3 credits
- 246-346 Photographic Design for Print Media, 3 credits
- 246-380 Communication Law, 3 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 246-497 Internship in Communication Processes, 3 credits

**Twelve credits in environmental science:****Ecology, 3 credits:**

- 362-302 Principles of Ecology, 3 credits

**Resource Management, 3 credits, chosen from:**

- 362-303 Conservation of Natural Resources, 3 credits
- 362-335 Water and Waste Water Treatment, 3 credits
- 362-460 Resource Management Strategy, 3 credits
- 362-466 Vegetation Management, 3 credits

**Field Speciality, 6 credits:**

In an area such as aquatic studies, solid waste, air quality, natural resources, or land use.

**Requirements for the Minor****Areas of Emphasis**

Each area of emphasis has unique requirements. After fulfilling required lower-level courses in a particular emphasis, remaining credits may be chosen from concentration courses with an adviser's approval.

**■ Aesthetic Awareness****Lower-Level Courses, 9 credits****Required:**

- 242-261 Aesthetic Awareness: Foundations, 3 credits

**Upper-Level Courses, 12 credits****Choose a minimum of 6 credits from:**

- 242-361 Aesthetic Awareness: Interpretation, 3 credits
- 242-362 Aesthetic Awareness: Psychology of Aesthetic Perception, 3 credits
- 242-364 Aesthetic Awareness: Creation, 3 credits
- 242-474 Aesthetic Awareness: Traditional Art Styles, 3 credits
- 242-475 Aesthetic Awareness: Avant-Garde Art Styles, 3 credits

Choose remaining credits with faculty advice.

**■ Graphic Communication****Lower-Level Courses, 9 credits****Required:**

- 242-231 Introduction to Graphic Communications, 3 credits

**Upper-Level Courses, 12 credits****Choose a minimum of 6 credits from:**

- 242-331 Graphic Communications Studio I, 3 credits
- 242-332 Graphic Communications Studio II, 3 credits
- 242-432 Graphic Communications Workshop, 3 credits
- 242-497 Internship in Graphic Communications, 3-12 credits

Choose remaining credits with faculty advice.

**■ Broad-Field Communications****Lower-Level Courses, 9 credits****Required:**

- 242-160 Introduction to Language, 3 credits

**Upper-Level Courses, 12 credits****Choose a minimum of 6 credits from:**

- 242-323 Language of Human Conflict, 3 credits
- 242-375 Communication Skills: The Language of Metaphor, 3 credits
- 242-430 Information, Media and Society, 3 credits
- 242-450 The Construction of Public Images, 3 credits

Choose remaining credits with faculty advice.

# Communication Processes

## Disciplinary Major or Minor

**Professors:** Jerry Dell (photography) [chairperson]; Jack Frisch (interpersonal communication); Donald Larmouth (linguistics, scientific and technical communication); Timothy Meyer (electronic media).

**Associate Professors:** Clifford Abbott (linguistics); Phillip Clamitt (organizational communication); Charles Matter (cognitive and perceptual psychology).

**Assistant Professors:** Jeffrey Benzow (graphic communication); Helaine Marshall (linguistics/teaching English as a second language).

**Lecturers:** Marcia Meyer; Jeanellyn Schwarzenbach.

The disciplinary program in communication processes offers contemporary communication studies emphasizing comprehensive 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.

Sending and receiving messages are essential parts of everyone's life. New information technologies tend to merge media and demand in both contemporary scholarship and in professional careers the kind of integrative knowledge provided by a major or minor in communication processes.

Communication processes offers six areas of emphasis:

- In **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.
- In **journalism**, students must have writing skill, the ability to dig, a concern for people, a strong sense of autonomy, and an abiding interest in public affairs, including their cultural, social, economic, and political contexts. Good journalists develop these qualities through this program and a thorough liberal arts education.
- Students in **linguistics** and **English as a second language** integrate a strong background in language structure and variation with substantial preparation in foreign language, cross-cultural studies, and education, both to succeed in the ESL classroom and to prepare for advanced studies at the graduate level.
- Students in **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.
- Students in **public relations** complete requirements which reflect the demand for graduates who can write well, are fully acquainted with the wide range of available modes of communication (graphics, print media, electronic media, oral discourse, and their many combinations), and are particularly skillful in at least one of them.

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 advisers 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 instructional facilities include television, field production equipment and video editing capabilities, photography laboratory, lighting studio, and electronic photography computer studio. Courses also use computer classrooms in the university Computer Center.

Communication processes students seeking an interdisciplinary minor or major should consult with a faculty adviser. Typical combinations with communication processes include programs in communication and the arts, business administration, humanistic studies, and urban and public affairs. Other plans suited to individual goals are available.

Communication processes graduates have entered a wide variety of academic and professional areas: news reporting, photojournalism, broadcast journalism, photographic 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

Courses marked (\*) cannot be double-counted with another academic major or minor.

### Lower-Level Courses, 15-18 credits

Depending on the emphasis, different supporting courses are chosen from these lower-level courses.

- \*242-160 Introduction to Language, 3 credits
- \*242-231 Introduction to Graphic Communication, 3 credits
- 246-102 Introduction to Mass Communication, 3 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 246-166 Fundamentals of Interpersonal Communication, 3 credits
- 246-200 Introduction to Communication Processes, 3 credits
- 246-201 Human Information Processing, 3 credits
- 246-203 Newswriting Laboratory, 3 credits
- 246-243 Introduction to Photography, 3 credits
- 246-253 Practicum in Print Journalism I, 1-3 credits

**246-200 Introduction to Communication Processes and 246-201 Human Information Processing are required of all majors in communication processes. Depending on the area of emphasis, additional lower-level courses are required:**

The emphasis in **print journalism** and the emphasis in **electronic media** require a total of 15 credits in lower-level courses which must include 246-102 Introduction to Mass Communication, and 246-203 Newswriting Laboratory. 246-243 Introduction to Photography is recommended.

The emphasis in **photography** requires a total of 15 credits in lower-level courses which must include 246-203 Newswriting Laboratory, and 246-243 Introduction to Photography. 246-102 Introduction to Mass Communication is recommended.

The emphasis in **organizational communication** requires a total of 15 credits in lower-level courses which must include 246-102 Introduction to Mass Communication, 246-133 Fundamentals of Public Address, and 246-203 Newswriting Laboratory.

The emphasis in **public relations** requires a total of 18 credits in lower-level courses which must include 246-102 Introduction to Mass Communication, 246-133 Fundamentals of Public Address, 246-203 Newswriting Laboratory, and 246-243 Introduction to Photography.

The emphasis in **linguistics/teaching English as a second language** requires a total of 23 credits in lower-level courses which must include 242-160 Introduction to Language and two years of a foreign language (14 credits) or equivalent proficiency.

### Upper-Level Courses

Upper-level courses vary with each area of emphasis.

#### Areas of Emphasis

##### ■ *Print Journalism, 24 credits*

See required lower-level courses above.

###### Required:

- 246-303 Feature Writing, 3 credits
- 246-380 Communication Law, 3 credits

###### A minimum of six credits from:

- 246-353 Practicum in Print Journalism II, 1-3 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 246-403 Advanced Reporting, 3 credits
- 246-460 Publications Management, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits
- 246-305 Elements of Electronic Media, 3 credits
- 246-308 Information Technologies, 3 credits
- 246-336 Theories of the Interview, 3 credits
- 246-343 Photography II, 3 credits
- 246-344 Photography III, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-497 Internship in Communication Processes, 3 credits

##### ■ *Electronic Media, 24 credits*

See required lower-level courses above.

###### Required:

- 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 remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits
- 246-343 Photography II, 3 credits
- 246-403 Advanced Reporting, 3 credits
- 246-444 Time Duration Visual Media, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-497 Internship in Communication Processes, 3 credits

##### ■ *Photography, 24 credits*

See required lower-level courses above.

###### Required:

- 246-343 Photography II, 3 credits
- 246-344 Photography III, 3 credits
- 246-443 Advanced Problems in Photography, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits
- 246-305 Elements of Electronic Media, 3 credits
- 246-307 Television Production Techniques, 3 credits
- 246-308 Information Technologies, 3 credits

- 246-345 Designing Multiple Media Applications of Photography, 3 credits
- 246-346 Photographic Design for Print Media, 3 credits
- 246-444 Time Duration Visual Media, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-460 Publications Management, 3 credits
- 246-497 Internship in Communication Processes, 3 credits

##### ■ *Organizational Communication, 24 credits*

See required lower-level courses above.

###### Required:

- 246-305 Elements of Electronic Media, 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

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits
- 246-308 Information Technologies, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-460 Publications Management, 3 credits
- 246-487 Communication Audits, 3 credits
- 246-497 Internship in Communication Processes, 3 credits

##### ■ *Linguistics/Teaching English as a Second Language, 24 credits*

See required lower-level courses above.

###### Required:

- 16 credits in a foreign language  
(equivalent to two years' college-level study)

Required for teacher licensure in English as a second language:

- 246-321 Sociolinguistics, 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

Choose remaining 9 credits from courses below:

- 246-320 History of the English language, 3 credits
- 246-326 Modern Semantics, 3 credits
- 246-337 Small Group Communication, 3 credits
- 246-445 Human Communication Theory, 3 credits
- 246-497 Internship in Communication Processes, 3 credits
- \*302-315 Teaching English as a Second Language, 3 credits
- 481-495 Language Acquisition in Childhood, 3 credits

##### ■ *Public Relations, 30 credits*

See required lower-level courses above.

###### Required:

- 246-303 Feature Writing, 3 credits
- 246-305 Elements of Electronic Media, 3 credits

A minimum of six credits from:

- 246-353 Practicum in Print Journalism II, 3 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 246-403 Advanced Reporting, 3 credits
- 246-460 Publications Management, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- 246-308 Information Technologies, 3 credits
- 246-309 Electronic Media Commercial Campaigns, 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 II, 3 credits
- 246-380 Communication Law, 3 credits



- 246-444 Time Duration Visual Media, 3 credits  
 246-445 Human Communication Theory, 3 credits  
 246-497 Internship in Communication Processes, 3 credits  
 \*216-322 Introductory Marketing, 3 credits  
 \*216-325 Public Relations, 3 credits  
 \*216-424 Marketing Research, 3 credits  
 \*216-425 Promotional Strategy, 3 credits  
 \*242-450 The Construction of Public Images, 3 credits

## Requirements for the Minor

Courses marked (\*) cannot be double-counted with another academic major or minor.

### Lower-Level Courses, 12 credits

Depending on the emphasis, different supporting courses are chosen from lower-level courses.

- \*242-160 Introduction to Language, 3 credits  
 \*242-231 Introduction to Graphic Communications, 3 credits  
 246-102 Introduction to Mass Communication, 3 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 246-166 Fundamentals of Interpersonal Communication, 3 credits  
 246-200 Introduction to Communication Processes, 3 credits  
 246-201 Human Information Processing, 3 credits  
 246-203 Newswriting Laboratory, 3 credits  
 246-243 Introduction to Photography, 3 credits  
 246-253 Practicum in Print Journalism I, 1-3 credits

246-200 Introduction to Communication Processes is required of all minors in communication processes. Depending on the area of emphasis additional lower-level courses are required:

The emphasis in **print journalism** requires a total of 12 credits in lower-level courses and must include 246-203 Newswriting Laboratory.

The emphasis in **electronic media** requires a total of 12 credits in lower-level courses which must include 246-102 Introduction to Mass Communication.

The emphasis in **photography** requires a total of 15 credits in lower-level courses which must include 246-243 Introduction to Photography.

The emphasis in **organizational communications** requires a total of 15 credits in lower-level courses which must include 246-133 Fundamentals of Public Address.

The emphasis in **public relations** requires a total of 15 credits in lower-level courses which must include 246-102 Introduction to Mass Communication, 246-133 Fundamentals of Public Address, 246-203 Newswriting Laboratory, and 246-243 Introduction to Photography.

### Upper-Level Courses, 12 credits minimum

Upper-level courses vary with each area of emphasis.

#### Areas of Emphasis

##### ■ *Print Journalism*

See required lower-level courses above.

A minimum of six credits from:

- 246-303 Feature Writing, 3 credits  
 246-353 Practicum in Print Journalism II, 1-3 credits  
 246-390 Scientific and Technical Communication, 3 credits  
 246-403 Advanced Reporting, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits  
 246-308 Information Technologies, 3 credits  
 246-343 Photography II, 3 credits  
 246-380 Communication Law, 3 credits  
 246-460 Publications Management, 3 credits

##### ■ *Electronic Media*

See required lower-level courses above.

Required:

- 246-305 Elements of Electronic Media, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 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

##### ■ *Organizational Communication*

See required lower-level courses above.

Required:

- 246-335 Organizational Communication, 3 credits  
 246-336 Theories of the Interview, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits  
 246-333 Persuasion and Argumentation, 3 credits  
 246-337 Small Group Communication, 3 credits  
 246-445 Human Communication Theory, 3 credits  
 246-460 Publications Management, 3 credits  
 246-487 Communication Audits, 3 credits

##### ■ *Photography*

See required lower-level courses above.

Required:

- 246-343 Photography II, 3 credits  
 246-344 Photography III, 3 credits  
 246-443 Advanced Problems in Photography, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*242-450 The Construction of Public Images, 3 credits  
 246-345 Designing Multiple Media Applications of Photography, 3 credits  
 246-346 Photographic Design for Print Media, 3 credits  
 246-444 Time Duration Visual Media, 3 credits  
 246-460 Publications Management, 3 credits

##### ■ *Public Relations*

See required lower-level courses above.

Required:

- 246-303 Feature Writing, 3 credits  
 246-305 Elements of Electronic Media, 3 credits

Choose remaining credits from these or other faculty adviser-approved upper-level courses:

- \*216-325 Public Relations, 3 credits  
 \*242-450 The Construction of Public Images, 3 credits  
 246-309 Electronic Media Commercial Campaigns, 3 credits  
 246-333 Persuasion and Argumentation, 3 credits  
 246-335 Organizational Communication, 3 credits  
 246-390 Scientific and Technical Communication, 3 credits  
 246-460 Publications Management, 3 credits

##### ■ *Linguistics/Teaching English as a Second Language, 18 credits required*

Required for students seeking teaching preparation minor in English as a second language:

8 credits in a foreign language, minimum (equal to one year of college-level study)

**Culture of a linguistic minority, minimum 3 credits:**

- 448-250 Traditional Asian Civilization, 3 credits  
 448-251 Modern Asian Civilization, 3 credits  
 493/558-358 Latin America Today, 3 credits  
 493-363 January Abroad: Mexico, 3 credits

**Language structure, minimum 3 credits:**

- 242-160 Introduction to Language, 3 credits  
 246-322 Modern Linguistics, 3 credits

**Language in its social context, minimum 3 credits:**

- 242-323 Language and Human Conflict, 3 credits  
 246-321 Sociolinguistics, 3 credits

**Application of linguistic principles to teaching English as a second language, minimum 3 credits:**

- 246-325 Applied Linguistics, 3 credits  
 246-327 Error Analysis and Treatment in Second Language Learning, 3 credits

**Knowledge of the methods of teaching English as a second language, 3 credits:**

- 302-315 Teaching English as a Second Language, 3 credits

**Additional depth in linguistics, minimum 3 credits:**

Course work selected in consultation with faculty adviser

## Earth Science

**Disciplinary Major or Minor**

**Professors:** H.J. Day; Steven I. Dutch (chairperson); Thomas H. McIntosh; Joseph M. Moran; Ronald D. Stieglitz.

Earth science is the study of materials such as air, water, soil and rocks, of forces and processes such as volcanos and weather that shape the earth, and the impacts that these physical elements have upon living organisms.

Emerging awareness of the need to use natural resources wisely has increased career opportunities for knowledgeable earth scientists in industry and government agencies that deal with land use decisions. Petroleum companies and metallic mineral industries hire earth scientists. Resource conservation agencies need people who can bridge the gap between the scientific and policy aspects of land use to increase public awareness and understanding of issues. Waste disposal, water quality, and soil erosion are examples of areas in which earth scientists work. UW-Green Bay's earth science program emphasizes environmental geology.

Earth science majors choose interdisciplinary minors. Students interested in regional planning, resource management or land management typically select interdisciplinary minors in environmental science or regional analysis or, alternatively, in environmental policy and *planning or public administration*. For those interested in business, earth science may be combined with courses in business administration. A career in science communication (technical and scientific writing, environmental and scientific journalism, environmental interpretation) with emphasis on the earth sciences may be pursued through a major linking earth science with communication and the arts.

Students seeking teacher preparation should consult with advisers in earth science and education early in their studies to make sure their programs meet all requirements.

Earth science majors usually follow one of two paths: 1) preparation for scientific and technical careers requiring advanced work at the graduate level, and 2) pursuit of the major to support another area of study or for personal satisfaction.

Students planning on graduate study should have a thorough understanding of mathematics, physics, and chemistry. Calculus, basic inorganic chemistry, and basic physics are as important as courses in geology, meteorology, hydrology, or soil science. Advanced courses in mathematics, computer science, physics, and chemistry are desirable. In some areas of earth science, advanced training in biology is required.

Supporting skills are essential. Earth scientists must be able to communicate with people in other fields, many of whom lack scientific training. Knowledge of foreign languages, history, and cultures provides access to foreign technical literature and makes it easier to work in other regions. Other technical skills such as air photo interpretation, or a knowledge of remote sensing methods are valuable tools for the professional earth scientist.

### Requirements for the Major

**Supporting Courses, 28 credits**

- 225-211 Principles of Chemistry I, 5 credits  
 225-212 Principles of Chemistry II, 5 credits  
 296-202 Physical Geology, 4 credits  
 296-203 Geologic Evolution of the Earth, 3 credits  
 296-204 Geologic Evolution of the Earth Laboratory, 1 credit

At least 7 credits of mathematics, computer science, or statistics at the 200-level or above.

At least 3 credits in communications (such as 246-133 Fundamentals of Public Address, 246-390 Scientific and Technical Communication, or 552-105 Expository Writing).

**Upper-Level Courses, 24 credits**

- 296-432 Hydrogeology, 3 credits  
 362-320 The Soil Environment, 3 credits  
 362-330 Hydrology, 3 credits  
 362-342 Environmental Geology, 3 credits  
 362-454 Remote Sensing of the Environment, 3 credits

**Plus any two of these:**

- 296-340 Rock and Mineral Resources, 3 credits  
 296-402 Stratigraphy and Sedimentation, 3 credits  
 296-470 The Glacial Environment and Chronology, 3 credits

**Plus at least two:**

- 296-492 Special Topics in Earth Science, 6 credits  
 (Course topics vary. Typical topics include mineralogy, structural geology, geologic field methods, and geomorphic processes.)

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 (equivalent to 266-155), including familiarity with a programming language such as BASIC or Pascal.

**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 least 7 credits of mathematics, computer science, or statistics at the 100-level or above (600-101 excluded).

**Upper-Level Courses, 12 credits**

- 362-342 Environmental Geology, 3 credits

**Plus any three of these:**

- 296-432 Hydrogeology, 3 credits  
 296-470 The Glacial Environment and Chronology, 3 credits  
 296-492 Special Topics in Earth Science, 1-3 credits  
 362-320 The Soil Environment, 3 credits  
 362-330 Hydrology, 3 credits  
 362-454 Remote Sensing of the Environment, 3 credits

**Economics****Disciplinary Major or Minor**

**Professors:** James M. Murray; Ismail Shariff (chairperson); John Stoll.

**Associate Professors:** Kumar Kangayappan; Larry Smith.

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 economic 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 choose an interdisciplinary minor. The majority of economics majors at UWGB choose the program in business with emphases in marketing or finance. Other interdisciplinary programs would be appropriate for other specific career goals.

The broad training received by economics students in economic decision-making creates a variety of career opportunities. Most 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 also work in related fields such as insurance, 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 seeking teacher preparation should consult advisers in the education program.

**Requirements for the Major****Supporting Courses, 9 credits required**

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

600-260 Introductory Statistics, 4 credits (required)

OR

255-205 Social Science Statistics, 4 credits

600-201 Calculus for the Management and Social Sciences, 3 credits  
 (Other equivalent or higher level calculus course will also fulfill this requirement.)

266-155 Microcomputers and End-User Applications, 3 credits  
 OR

266-256 Introduction to Computer Science 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 Sources of Contemporary Economic Concepts, 3 credits

**Electives, 18 credits chosen from:**

- 298-301 Economic and Social Security, 3 credits
- 298-304 Contemporary Labor Markets, 3 credits
- 298-306 Public Finance and Fiscal Policy, 3 credits
- 298-308 Business Cycles, 3 credits
- 298-330 Money and Banking, 3 credits
- 298-402 Resource Economics Analysis, 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
- 298-485 Managerial Economics, 3 credits
- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 950-309 Urban and Regional Economic Theory, 3 credits

**Requirements for the Minor****Supporting Courses, 3 credits required****Choose one:**

- 298-202 Macro Economic Analysis, 3 credits
- 298-203 Micro Economic Analysis, 3 credits
- 255-205 Social Science Statistics, 4 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 266-256 Introduction to Computer Science I, 4 credits
- 600-201 Calculus for the Management and Social Sciences, 3 credits
- 600-260 Introductory Statistics, 4 credits

**Upper-Level Courses, 12 credits**

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

**Electives:**

9 credits of 300-400-level courses chosen from upper-level course listings in the major

# Education

**Interdisciplinary Major or Minor**

**Professors:** Margaret Laughlin (chairperson); George O'Hearn; Robert Purn; Thomas Van Koevering.

**Associate Professors:** Dennis Bryan; Garry Owens; Richard Presnell; Philip Thompson.

**Assistant Professors:** Jeffrey Aaron; James Elicker; Theodor Korithoski; Helaine Marshall; Timothy Sewall; Francine Tompkins.

**Lecturers:** Joan Simmons; Joan Thron.

UW-Green Bay's teacher education program has two goals:

- to prepare teachers to address the needs of a *changing* school population;
- to prepare teachers to teach the knowledge and skills required by changes in society and the work place.

The program also provides preparation for a variety of education-related professions.

At UW-Green Bay, students seeking elementary-level (grades 1-6 or 1-9) licensure will fulfill an interdisciplinary major in education supported by a Department of Public Instruction-approved and required subject-matter teaching minor. Upon completion, graduates will receive a bachelor's degree in education. Students may extend their qualifications to include early childhood education.

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 DPI. They will graduate with the bachelor's degree in their major subject, and an 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 which provide the background, knowledge, and instructional tools needed to become an effective teacher.

The core program for both elementary and secondary certification candidates includes courses that address today's concerns in education: changes in schools and schooling, changes in the nature and nurture of students, and changes in society and the workplace. Early field experiences provide prospective teachers with experience with students in actual educational settings, including work with ethnic, cultural and economic minorities, adult learners, and exceptional children.

UW-Green Bay's teacher education program has been reviewed recently and received approval by the Wisconsin Department of Public Instruction.

UWGB offers teacher preparation in these subjects and grade levels:

Early childhood/elementary-level (grades prekindergarten-3 or prekindergarten-6)

Elementary-level (grades 1-6)

Elementary/middle-level (grades 1-9)

Secondary-level or middle/secondary-level (grades 9-12 or 6-12)

Academic subjects listed below are for secondary or middle/secondary-level unless otherwise indicated. An (M) indicates a teaching major and (m) designates a teaching minor.

Anthropology (m)  
 Art (K-12) (M)  
 Athletic coaching certification  
 Biology (M, m)  
 Chemistry (M, m)  
 Computer science (M, m)  
 Earth science (M, m)  
 Economics (M, m)  
 English (6-9) (m); (6-12) (M)  
 English as a second language (elementary, 6-12 or K-12) (M, m)  
 French (6-12 or K-12) (M, m)  
 Geography (M, m)  
 German (6-12 or K-12) (M, m)  
 History (M, m)  
 Journalism/Mass Media (M, m)  
 Mathematics (6-9) (m); (6-12) (M, m)  
 Music—choral (6-12) (M)  
 Music—instrumental (6-12 or K-12) (M)  
 Music—general (K-9 or K-12) (M)  
 Native American Languages: Oneida (6-12 or K-12) (M, m)  
 Physical science (M)  
 Physics (M, m)  
 Political science (M, m)  
 Psychology (M, m)  
 Resource management (m)  
 Science: broad field certification  
 Science (6-9) certification  
 Social studies: broad field certification  
 Social studies: (6-9) certification  
 Sociology (M, m)  
 Spanish (6-12 or K-12) (M, m)  
 Speech (M, m)  
 Theatre (M, m)

All of these programs are fully approved by the DPI for preparation for licensure as a teacher in Wisconsin. Individuals who have completed UWGB's teacher education program qualify for licensure in many other states.

For students with career goals other than the traditional role of classroom teacher, the education program offers opportunities, too. Such students may pursue individually planned programs relating to their particular educational needs and career goals.

Some examples of such career fields include: environmental education and nature center programs, labor education programs, educational media, social services agency educational programs, education advocacy, parent education, education for the elderly, youth and adult community programs, and leisure education.

UWGB teacher preparation graduates have consistently shown excellent placement records. A follow-up of recent graduates revealed that approximately 92 percent were professionally placed. Eighty-two percent of those with elementary licensure and 79 percent with secondary licensure were employed in education. Employment opportunities do vary depending upon the area of certification.

#### Program Entrance Requirements

**Preliminary Admission.** Students planning to complete a teacher preparation program should indicate this when they apply for admission to UWGB. When they are admitted, students select teacher preparation programs in which they expect to complete requirements.

Also at the time of registration for classes, students should indicate pre-elementary, pre-middle school or pre-secondary education in the appropriate section of the final registration form. Any student in good standing may enroll in supporting courses (100-200 level) in education or in an education program not leading to full preparation for licensure.

Admission to the University and meeting minimum entrance requirements does not guarantee admission to teacher education. The teacher education program reserves the right to limit admission to programs due to staffing and space limitation.

**Final Admission.** Students must meet the following requirements for admission to the UWGB teacher education program:

1. Be a matriculated student and have earned a minimum of 15 credits in residence at UWGB with a grade point average of 2.75 or higher for work completed at UWGB. Transfer students with a cumulative grade point average of 3.0 or higher based on at least 40 credits accepted for transfer are not required to meet this 15-credit requirement. Students who complete an associate degree at a UW Center System campus will be treated as if all courses completed at that campus were taken at UWGB.
2. Have a minimum cumulative grade point average of 2.75 computed on at least 40 credits of college-level course work. This is calculated on all courses attempted at UWGB and at other institutions which might be recognized for transfer of credit to UWGB. Those courses in which UWGB has no comparable curricular area are not considered in these calculations.
3. Have completed the Preprofessional Skills Test (PPST) with a score of at least 173 in mathematics, 175 in reading, and 174 in writing. The PPST is administered by Educational Testing Service, PPST Program Service, Box 23480, Oakland, California 94623. Information and registration forms are available from the Education Office.
4. Have demonstrated proficiency in speaking and listening by completion of 246-133 Fundamentals of Public Address, with a grade of "C" or better, or by completing an equivalent speech course acceptable for transfer to UWGB with a grade of "C" or better.
5. Have a copy of her or his high school transcript on file in the Education Office.
6. Have ACT, SAT, or other national standardized test scores submitted to the Registrar's Office for entry on the UWGB transcript.
7. 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 accommodation can perform the essential functions of a teacher. An examination and recommendation by an appropriate medical and/or other professional specialist will be required if deemed necessary.
8. 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 a teaching license is not an automatic bar to admission and is considered only as these substantially relate to the responsibilities of the teacher education program and eventual licensure. Persons denied admission are entitled to appeal.
8. Have a completed application for admission to the teacher education program on file in the Education Office.

#### Application for Admission

Students should apply for admission to the program early in the semester in which they expect to complete all requirements for admission. Specific deadlines are available from the Education Office.

Exceptions or appeals to any of the above criteria should be directed to the Education Office.

## 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 UWGB'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. Also, students who already hold a bachelor's degree who are interested in pursuing initial teacher preparation or extending their licensure to additional areas or grade levels should learn the 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:

Core requirements

Professional education sequence

Teaching subject minor(s)

Electives

Pre-student-teaching clinical experiences

Student-teaching

### Secondary-Level Requirements

General education

Interdisciplinary minor in education:

Core requirements

Professional education sequence

Teaching subject major(s)

Electives

Pre-student-teaching clinical experiences

Student-teaching

### General Education, 42 credits

General-education requirements for education majors and minors are specific and detailed. Students should plan their programs carefully with an adviser. The University's over-all general-education requirements do not fulfill all requirements for education students. The education program's general-education requirements do satisfy UWGB's lower-level general-education requirements, however.

General-education requirements differ for elementary-level and secondary-level programs. In either case, courses taken to meet general-education requirements may not overlap with courses required for the major, minor, or professional sequence.

Following is a summary of general-education requirements. Students should acquire a list of specific approved courses from an adviser.

Written and oral communication, 6 credits

Mathematics, 3-6 credits

Fine arts, 3 credits

Social studies (including government), 6 credits

Biological and physical sciences, 9-12 credits

Humanities, including literature, 3 credits

Western and non-western history or contemporary cultures, 6 credits

United States history, 3 credits

Human relations, 6 credits

Upper-level requirements, 3-9 credits:

Two courses selected from list of approved upper-level writing emphasis courses

Senior Seminar

### Teaching Minor(s), 22 or more credits

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

Early childhood education

English as a second language

English/language arts

Environmental studies

Foreign language: French, German, Spanish

Mathematics

Oncida language

Science

Social studies

### Teaching Major, 34 or more credits

Students seeking secondary or middle-secondary licensure must complete a teaching subject major, selected from the list of DPI-approved majors near the beginning of this narrative.

### Human Relations

Fulfilled by human relations courses which may be taken as part of general-education sequence, and 50 clock hours of direct involvement with adult and pupil members of specified groups.

### Conservation/Environmental Education, 6-8 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.

### Professional Education

#### ■ Early Childhood/Elementary Level

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

302-300 Introduction to Education and Teaching, 3 credits

302-302 Teaching Social Studies in Elementary and Middle Schools, 3 credits

302-303 Teaching Art in Elementary and Middle Schools, 2 credits

302-304 Teaching Music for Elementary and Middle Teachers, 2 credits

- 302-306 Teaching Health and Physical Education in Elementary and Middle Schools, 3 credits  
 302-307 Teaching Reading in the Elementary School, 3 credits  
 302-308 Children's Literature in the Elementary School, 3 credits  
 302-309 Teaching Language Arts in Elementary and Middle Schools, 3 credits  
 302-322 Educational Psychology, 3 credits  
 302-324 Teaching Mathematics in Elementary and Middle Schools, 3 credits  
 302-325 Teaching Science in Elementary and Middle Schools, 3 credits  
 302-351 Field Project in Educational Settings, 1 credit  
 302-400 Education, Schools, and Society in the United States, 3 credits  
 302-402 Student Teaching in the Elementary School, 15 credits  
 302-410 Introduction to the Education of Exceptional Children, 3 credits  
 302-421 Literacy and Language Development in Young Children, 3 credits  
 302-441 History, Philosophy, and Current Programs in Early Childhood Education, 3 credits  
 302-442 Curriculum and Program Development in Early Childhood Education, 3 credits  
 302-445 Early Childhood Center Administration and Community Resource Management, 3 credits  
 481-331 Infancy and Early Childhood, 3 credits  
 481-332 Middle Childhood and Adolescence, 3 credits  
 481-333 Observation and Interpretation of Child Behavior, 3 credits  
 481-334 Play and Creative Activities in Childhood, 3 credits  
 481-335 Introduction to Experience with Young Children, 1 credit  
 OR

Approved, supervised experience with a group of young children

**Also:**

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

■ **Elementary and Elementary/Middle Level**

- 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  
 302-300 Introduction to Education and Teaching, 3 credits  
 302-302 Teaching Social Studies in Elementary and Middle Schools, 3 credits  
 302-303 Teaching Art in Elementary and Middle Schools, 2 credits  
 302-304 Teaching Music for the Elementary and Middle Teacher, 2 credits  
 302-306 Teaching Health and Physical Education in Elementary and Middle Schools, 3 credits  
 302-307 Teaching Reading in the Elementary School, 3 credits  
 302-308 Children's Literature in the Elementary School, 3 credits  
 302-309 Language Arts in Elementary and Middle Schools, 3 credits  
 302-322 Educational Psychology, 3 credits  
 302-324 Teaching Mathematics in Elementary and Middle Schools, 3 credits  
 302-325 Teaching Science in Elementary and Middle Schools, 3 credits  
 302-351 Field Project in Educational Settings, 1 credit  
 302-400 Education, Schools, and Society in the United States, 3 credits  
 302-401, 402 Student Teaching in the Middle/Elementary School, 15 credits  
 302-410 Introduction to the Education of Exceptional Children, 3 credits

- 302-421 Literacy and Language Development in Young Children, 3 credits

**OR**

- 302-422 Reading in the Content Areas, 3 credits  
 302-452 Principles of Middle-Level Education, 3 credits

**Also:**

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

■ **Secondary or Middle/Secondary Level**

- 302-250 Field Experience in Education, 2 credits  
 302-280 Instructional Technologies: Evaluation, Production and Application, 3 credits  
 302-300 Introduction to Education and Teaching, 3 credits  
 302-310 through 317 Teaching (Specific Subjects) in Middle/Secondary Schools, 3 credits  
 302-322 Educational Psychology, 3 credits  
 302-351 Field Project in Educational Settings, 1 credit  
 302-400 Education, Schools, and Society in the United States, 3 credits  
 302-401, 403 Student Teaching in the Middle/Secondary School, 15 credits  
 302-410 Introduction to the Education of Exceptional Children, 3 credits  
 302-422 Reading in the Content Areas, 3 credits  
 302-452 Principles of Middle-Level Education, 3 credits  
 481-332 Middle Childhood and Adolescence, 3 credits

**Also:**

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

# Engineering

## Professional Major

**Advisers:** Harold J. Day, professor; Robert Lanz, associate professor; Nancy J. Sell, professor.

Engineering at UWGB is a joint program co-sponsored by UWGB and the University of Wisconsin-Milwaukee. Called the Northeast Wisconsin (NEW) Engineering Program, it allows students to complete their first two years of engineering studies at UWGB and continue into upper-level courses in the College of Engineering and Applied Science at UWM.

Engineering and many general education courses at UWGB are recognized as equivalent to course work at UWM. Students who complete their first two years at UWGB and meet eligibility requirements are considered for admission into upper-level studies in the College of Engineering and Applied Science at UWM on the same basis as students who began at UWM.

Students who complete one of the majors in engineering receive a Bachelor of Science degree from the College of Engineering and Applied Science at UWM. There are currently five such majors:

- civil engineering
- electrical engineering
- industrial engineering
- materials engineering
- mechanical engineering

Participants in the NEW Engineering Program normally complete 74 to 83 credits at UWGB which count toward the degree. In order to be eligible to advance into a major and take certain junior- and senior-level courses, students must meet grade-point average requirements and complete a number of specific courses. Grade-point requirements as of spring 1992, are:

- 2.25 minimum GPA in civil, electrical, industrial, or materials engineering
- 2.40 minimum GPA in mechanical engineering

In addition, engineering students must receive a BC or better in 552-100, College Writing (or 552-105, Expository Writing, or 246-164, ESL: Expository Writing II), to qualify for the UWM English proficiency essay examination, which is administered at UWGB each semester. This examination should be taken and passed before transferring to UWM.

Students in the NEW Engineering Program must meet 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 additional credits from approved arts, humanities, or social sciences courses

The above 18 credits must consist of courses from no more than four departments and must include a course which satisfies the cultural diversity requirement. Students should consult a faculty adviser or the *Academic Advising Handbook* for specific course groupings to meet this requirement.

UWGB students who have completed 48 countable credits (including 30 credits in required courses) are eligible to apply for advancement into the major at UWM. The UW-Green Bay Academic Advising Office has forms. Filing deadlines are October 1 for spring semester, February 1 for summer session, and June 1 for fall semester.

## Requirements for the Major

### All engineering students must take:

- 225-211, 212 Principles of Chemistry I, II, 5, 5 credits
- 246-390 Scientific and Technical Communication, 3 credits
- 325-201 Engineering Materials, 4 credits
- 325-234 Linear Systems Analysis, 4 credits
- 325-251 Programming for Science and Engineering, 3 credits
- 325-313 Mechanics I, 3 credits
- 552-100 College Writing, 3 credits (see adviser)
- 600-202, 203 Calculus and Analytic Geometry I, II, 4, 4 credits
- 600-209 Multivariate Calculus, 4 credits
- 754-201, 202 Principles of Physics I, II, 5, 5 credits

### Additional courses required in civil and mechanical engineering:

- 325-105 Engineering Graphics, 3 credits
- 325-210 Introduction to Design Techniques, 3 credits
- 325-314 Mechanics II, 3 credits
- 325-316 Strength of Materials, 4 credits

### Additional course required in electrical engineering:

- 325-314 Mechanics II, 3 credits

### Additional courses required in industrial engineering:

- 325-105 Engineering Graphics, 3 credits
- 325-210 Introduction to Design Techniques, 3 credits
- 325-314 Mechanics II, 3 credits
- 325-316 Strength of Materials, 4 credits

### Additional course required in materials engineering:

- 325-316 Strength of Materials, 4 credits



# English

## Disciplinary Major or Minor

**Professors:** Sidney H. Bremer (chairperson); Martin Greenberg; Elmer Havens; Walter Herrscher; Estella Lauter; E. Michael Thron.

**Associate Professors:** Michael Murphy; Philip Thompson.

**Assistant Professor:** Bruce Sutton.

**Lecturers:** Jo Chern; Denise Sweet; Joan Thron.

Courses in English develop students' understanding of important works of American and English literature, give them an awareness of—and appreciation for—our literary heritage, provide them with a historical perspective from which to evaluate works written in their own time, 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.

Although some students choose to study English primarily for personal growth and intellectual enrichment, the program is intended to prepare students for graduate work, teaching, and the professions, as well as for a variety of occupations in business, industry, and government.

UW-Green Bay graduates in English have found satisfying careers in personnel work, public relations, business management, journalism, politics, free-lance writing, publishing, and other fields requiring communication skills combined with a broad humanities background.

Because English is offered within a broad program of literature and language at UW-Green Bay, student course work may draw on faculty from French, German, and Spanish, too. The English program also offers creative writing courses, and English majors may choose an emphasis in creative writing.

Students majoring in English will 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 personal preferences and career goals, students may find other interdisciplinary programs appropriate, such as human development or social change and development.

Students desiring teacher preparation in English must combine their studies in English with the professional program in education and with an interdisciplinary program.

## Requirements for the Major

### Lower-Level Courses, 9-12 credits

552-105 Expository Writing, 3 credits (waived for qualified students)

#### Minimum of 9 credits from:

- 552-104 Introduction to Literature, 3 credits
- 552-206 Women in Literature, 3 credits
- 552-212 Introduction to Creative Writing: Fiction, 3 credits
- 552-213 Introduction to Creative Writing: Poetry, 3 credits
- 552-214 Introduction to English Literature I, 3 credits
- 552-215 Introduction to English Literature II, 3 credits
- 552-216 Introduction to American Literature I, 3 credits
- 552-217 Introduction to American Literature II, 3 credits

### Upper-Level Courses, 24 credits

#### Required:

- 552-323 Approaches to Literature, 3 credits
- 552-431 Shakespeare, 3-4 credits

Minimum of 3 credits (waived for those who have taken 552-214) from any pre-1800 literature course, such as:

- 552-315 The English Novel: 1700-1860, 3 credits
- 552-335 Literary Eras: Medieval, 3 credits
- 552-335 Literary Eras: Renaissance, 3 credits

Minimum of 3 credits from any world literature course taught in English, such as:

- 552-333 Literary Themes: French Women's Autobiographical Writing, 3 credits
- 552-335 Literary Eras: New English Literatures, 3 credits
- 552-350 Major Foreign Drama: German, 3 credits
- 552-351 Major Foreign Prose Fiction: Spanish and Latin American, 3 credits
- 552-352 Major Foreign Poetry: French, 3 credits

Minimum of 12 additional credits from courses listed above or other literature or writing courses, including:

- 552-302 Fiction Writing Workshop, 3 credits
- 552-303 Poetry Writing Workshop, 3 credits
- 552-304 Advanced Expository Writing, 3 credits
- 552-310 Major English Drama, 3 credits
- 552-314 Major English Poetry, 3 credits
- 552-315 English Novel: 1700-1860, 3 credits
- 552-316 English Novel: 1850-Present, 3 credits
- 552-330 Major American Drama, 3 credits
- 552-331 Major American Prose Fiction, 3 credits
- 552-332 Major American Poetry, 3 credits
- 552-333 Literary Themes, 3 credits
- 552-335 Literary Eras, 3 credits
- 552-434 Major British Writer(s), 3 credits
- 552-490 Seminar in Literature, 3 credits

(Course content may vary; some of above may be repeated for credit. See adviser.)

## Area of Emphasis

### ■ Creative Writing

#### Supporting Courses, 9-12 credits

- 552-105 Expository Writing, 3 credits (waived for qualified students)
- 552-212 Introduction to Creative Writing: Fiction, 3 credits
- 552-213 Introduction to Creative Writing: Poetry, 3 credits

A minimum of 3 credits in lower-level literature courses (see list in major)

#### Upper-Level Courses, 24 credits

##### Required:

- 552-431 Shakespeare, 3-4 credits

Six to 12 credits in creative writing courses such as:

- 552-302 Fiction Writing Workshop, 3 credits (may be repeated once)
- 552-303 Poetry Writing Workshop, 3 credits (may be repeated once)
- 552-498 Independent Study, 1-4 credits

A minimum of 9 credits in upper-level literature courses (see list in major)

## Requirements for the Minor

### Lower-Level Courses, 9-12 credits

552-105 Expository Writing, 3 credits (waived for qualified students)

#### Minimum of 9 credits from:

- 552-104 Introduction to Literature, 3 credits
- 552-206 Women in Literature, 3 credits
- 552-212 Introduction to Creative Writing: Fiction, 3 credits
- 552-213 Introduction to Creative Writing: Poetry, 3 credits
- 552-214 Introduction to English Literature I, 3 credits
- 552-215 Introduction to English Literature II, 3 credits
- 552-216 Introduction to American Literature I, 3 credits
- 552-217 Introduction to American Literature II, 3 credits

### Upper-Level Courses, 12 credits

- 552-431 Shakespeare, 3-4 credits

Minimum of 3 credits (waived for those who have taken 552-214) from any pre-1800 literature course (see list in major)

Minimum of 6 additional upper-level credits (see list in major)

# Environmental Policy and Planning

## Interdisciplinary Major or Minor

**Professors:** Michael E. Kraft (chairperson); Nicholas Pollis; E. Nelson Swinerton; John R. Stoll.

**Associate Professors:** Ronald Baba; Ray Hutchison; David M. Littig; Robert Mendelsohn.

**Assistant Professors:** Hugh Miller; Denise Scheberle.

Environmental Policy and Planning is an environmental studies program based in the social sciences. Through the major, students develop knowledge and skills in planning and decision making, public policy, political and economic systems, and the environmental sciences, and acquire analytic capacities to participate in the processes which will shape future environmental quality.

The major prepares students for a variety of challenging professions involving planning, analyzing, designing, and administering policies and programs dealing with the natural and built environment. It also is excellent preparation for further study in a variety of graduate programs, including environmental studies, public policy, public administration, law, urban and regional planning, and related fields.

All majors engage in both theoretical and applied studies, and have considerable latitude in selecting a problem focus in their emphasis and within individual courses.

Students choose one of two areas of emphasis:

- environmental policy and administration
- environmental planning

**Environmental policy and administration** serves students interested in environmental policy, policy analysis, and administrative aspects of environmental studies. It prepares them for graduate work in environmental studies, public policy, public affairs and administration, and law, or for employment in fields such as environmental policy analysis, public information and government relations, and administration of public and nonprofit organizations. Courses focus on policy development, implementation, and change; methods for policy analysis and planning; and the political, administrative, legal, and economic setting for environmental policy.

**Environmental planning** is intended for students concerned with planning, environmental impact analysis, geography, land use, economics, and issues in community and regional economic development. The emphasis helps prepare students for graduate work in urban planning and design, regional planning, architecture, and related fields, and for employment in fields such as urban, regional, and environmental planning. Courses focus on planning theory and methods, issues in land use and impact analysis, political and legal aspects of environmental planning, and economic issues in environmental policy and planning.

Internships, field studies, and/or applied research projects are required of every student. Internships are especially encouraged. Students are encouraged to take additional courses to prepare for particular career emphases or graduate study. Course work could include a minor or second major in environmental science, public administration, urban studies, regional analysis, political science, or economics, or it could be built around a field specialization designed in consultation with an adviser.

The minor is intended to supplement work in fields such as environmental science, public administration, political science, economics, urban studies, social change and development, and regional analysis.

Program advisers make every effort to design a course of study tailored for each student's individual needs and interests.

## Requirements for the Major Competencies

Students should have competencies at this level, or take these courses:

- 266-155 Microcomputers and End-User Applications, 3 credits
- 298-202 Macro Economic Analysis, 3 credits  
OR
- 298-203 Micro Economic Analysis, 3 credits
- 778-100 Introduction to Political Science, 3 credits  
OR
- 778-101 American Government and Politics, 3 credits
- 950-200 Introduction to Urban Studies, 3 credits
- 950-215 Introduction to Public Administration, 3 credits

## Supporting Courses, 13 credits

- 255-205 Social Science Statistics, 4 credits  
OR
- 600-260 Introductory Statistics, 4 credits
- 255-301 Foundations for Social Research, 3 credits
- 362-102 Introduction to Environmental Science, 3 credits
- 950-202 Introduction to Public Policy, 3 credits

## Upper-Level Courses, 12 credits

### Core courses, 6 credits

- 950-330 Environmental Politics and Policy, 3 credits  
OR
- 950-378 Environmental Law, 3 credits

### Choose one of these:

- 362-302 Principles of Ecology, 3 credits
- 362-303 Conservation of Natural Resources, 3 credits
- 362-342 Environmental Geology, 3 credits
- 362-460 Resource Management Strategy, 3 credits

### Internship/Laboratory courses, 3 credits

- 950-461 Urban and Public Affairs Laboratory, 3 credits
- 950-497 Internship, 3-12 credits

### Capstone course, 3 credits

- 950-430 Seminar in Ethics and Public Affairs, 3 credits

## Areas of Emphasis, 18 credits

### ■ Environmental Policy and Administration Emphasis

#### Required:

- 950-408 Public Policy Analysis, 3 credits

#### One of these:

- 778-316 American Legislative Process, 3 credits
- 778-410 Intergovernmental Relations, 3 credits
- 950-330 Environmental Politics and Policy, 3 credits
- 950-331 Urban Politics and Policy, 3 credits
- 950-406 State and Local Government, 3 credits

#### One of these:

- 778-320 Constitutional Law, 3 credits
- 950-306 Regulatory Policy and Administration, 3 credits
- 950-376 Administrative Law, 3 credits
- 950-378 Environmental Law, 3 credits

#### One of these:

- 950-402 Resource Economics Analysis, 3 credits
- 950-409 Public Finance and Fiscal Policy, 3 credits
- 950-415 Public and Nonprofit Budgeting, 3 credits

#### Two of these:

- 298-302 Intermediate Macro Economic Theory, 3 credits
- 298-303 Intermediate Micro Economic Theory, 3 credits
- 834-322 Regional Planning, 3 credits

- 834-356 Environmental Impact Analysis, 3 credits
- 950-309 Urban and Regional Economic Theory, 3 credits
- 950-315 Public and Nonprofit Management, 3 credits
- 950-412 Urban Planning, 3 credits
- 950-451 Decision Theory and Methods, 3 credits
- 950-452 Planning Theory and Methods, 3 credits

#### ■ Environmental Planning Emphasis

##### Required:

- 416-350 Geographic-Land Information Systems, 3 credits
- 950-412 Urban Planning, 3 credits
- OR
- 834-322 Regional Planning, 3 credits
- 950-452 Planning Theory and Methods, 3 credits

##### One of these:

- 834-323 Land-Use Controls, 3 credits
- 834-356 Environmental Impact Analysis, 3 credits
- 834-421 Techniques and Methods of Regional Planning, 3 credits

##### One of these:

- 778-410 Intergovernmental Relations, 3 credits
- 950-330 Environmental Politics and Policy, 3 credits
- 950-331 Urban Politics and Policy, 3 credits
- 950-378 Environmental Law, 3 credits
- 950-408 Public Policy Analysis, 3 credits

##### One of these:

- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 950-309 Urban and Regional Economic Theory, 3 credits
- 950-402 Resource Economics Analysis, 3 credits
- 950-409 Public Finance and Fiscal Policy, 3 credits
- 950-415 Public and Nonprofit Budgeting, 3 credits

## Requirements for the Minor

### Supporting Courses, 12 credits

- 298-202 Macro Economic Analysis, 3 credits
- OR
- 298-203 Micro Economic Analysis, 3 credits
- 362-102 Introduction to Environmental Science, 3 credits

##### Two of these:

- 778-101 American Government and Politics, 3 credits
- 950-200 Introduction to Urban Studies, 3 credits
- 950-202 Introduction to Public Policy, 3 credits
- 950-215 Introduction to Public Administration, 3 credits

### Upper-Level Courses, 18 credits

- 950-330 Environmental Politics and Policy, 3 credits
- 950-452 Planning Theory and Methods, 3 credits
- OR
- 950-412 Urban Planning, 3 credits

##### One of these:

- 362-302 Principles of Ecology, 3 credits
- 362-303 Conservation of Natural Resources, 3 credits
- 362-342 Environmental Geology, 3 credits
- 362-460 Resource Management Strategy, 3 credits
- 834-356 Environmental Impact Analysis, 3 credits

##### Two of these:

- 834-322 Regional Planning, 3 credits
- 950-306 Regulatory Policy and Administration, 3 credits
- 950-378 Environmental Law, 3 credits
- 950-402 Resource Economics Analysis, 3 credits
- 950-408 Public Policy Analysis, 3 credits
- 950-412 Urban Planning, 3 credits
- 950-451 Decision Theory and Methods, 3 credits

##### One of these:

- 834-340 Economics of Land Use, 3 credits
- 950-309 Urban and Regional Economic Theory, 3 credits
- 950-409 Public Finance and Fiscal Policy, 3 credits
- 950-415 Public and Nonprofit Budgeting, 3 credits

### Courses recommended for students emphasizing environmental planning:

- 834-323 Land Use Controls, 3 credits
- 834-350 Geographic-Land Information Systems, 3 credits
- 834-421 Techniques and Methods of Regional Planning, 3 credits

# Environmental Science

## Interdisciplinary Major or Minor

**Professors:** Harold J. Day; Steven I. Dutch; Fritz A. Fischbach; Hallett J. Harris; David Jowett; Thomas H. McIntosh; Anjani K. Mehra; Joseph M. Moran; Michael D. Morgan; V.M.G. Nair; Jack C. Norman; Charles R. Rhyner; Paul E. Suger; Leander J. Schwartz; Nancy J. Sell; Ronald H. Starkey; Ronald D. Stieglitz; Robert B. Wenger (chairperson).

**Associate Professors:** Gregory J. Davis; Robert W. Howe; Robert W. Lanz; Nikitas L. Petrakopoulos; James H. Wiersma.

**Assistant Professor:** Tian-You Hu; John M. Lyon.

**Adjunct Assistant Professors:** Lynn L. Frederick; Clifford E. Kraft.

**Adjunct Instructors:** Steven C. Bennett; Mary G. Kohrell; Jane M. Rank.

**Lecturers:** Gary A. Fewless; Gary G. Wardall.

**Specialists:** Thomas C. Erdman; Jory L. Jonas.

Environmental science is recognized by many as one of the distinctive, essential features of the search for knowledge. The UW-Green Bay major in environmental science is designed to guide students in their quest for knowledge in this field and to help them to understand, analyze, and solve environmental problems.

Environmental science requires an interdisciplinary perspective; none of the traditional disciplines by itself provides an adequate basis for understanding environmental problems and issues. Accordingly, 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 policy issues. Field experiences, internships and practica are emphasized.

At a time when many colleges and universities are just beginning to recognize the need for environmental science programs, faculty at UW-Green Bay have had twenty years of teaching and research experience in the field. Faculty members are actively involved in addressing environmental problems at the regional, national, and international levels. They bring the perspective gained from these experiences into the classroom and their research work provides opportunities for undergraduate students to become involved in research projects.

Several facilities and resources contribute to the vitality of the environmental science major and enrich learning for students. These include the Richter Natural History Museum, the UW-Green Bay herbarium, a campus greenhouse, the Cofrin Arboretum on campus, and several natural areas in Northeast Wisconsin.

The campus has acquired gas chromatography-mass spectroscopy, nuclear magnetic resonance spectroscopy, and Fourier transform-infrared spectroscopy chemical instrumentation systems. These instruments are capable of performing sophisticated chemical analyses which are important in environmental monitoring. Students and faculty have access to microcomputers and a Digital Equipment Corporation VAX mainframe system. Computing software resources emphasizing geographic information systems (GIS) and mathematical modeling tools also are an asset to the environmental science program.

A significant number of environmental science graduates from UW-Green Bay gain entry-level positions in the environmental science field. Some of these positions are in the public sector but a growing number of employment opportunities are becoming available in industries, business, and engineering consulting firms. As industries begin to recognize their responsibility to help create and maintain a sustainable environment, they create positions dealing with waste management, pollution control, and

other types of environmental responsibilities. A significant percentage of environmental science graduates go on to advanced study in environmental science or in one of the scientific disciplines.

Students who plan to major in environmental science should emphasize science and mathematics in their high school course work. Courses in biology, chemistry, physics, and mathematics provide the needed background for successful study in environmental science.

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

- ecology and biological resources management
- physical resources management

Starting with the ecosystems concept as a basis, students in the **ecology and biological resources management emphasis** study problems concerned with biological resources preservation, use, and restoration. The focus of the **physical resources emphasis** is conservation and environmental quality of our physical resources: air, water, and soils. Recovery of useful materials or energy products from wastes and disposal of the remainder in an environmentally acceptable manner also is emphasized.

## 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, 28-29 credits

- 204-202, 203 Principles of Biology I, II, 8 credits
- 225-211, 212 Principles of Chemistry I, II, 10 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 296-202 Physical Geology, 4 credits
- OR
- 296-222 Introduction to Weather and Climate, 3 credits
- 600-260 Introductory Statistics, 4 credits

##### Upper-Level Courses, 33 credits

###### Required core courses, 13 credits:

- 362-302 Principles of Ecology, 3 credits
- 362-390 Scientific Applications of Computing, 3 credits
- 362-403 Limnology, 3 credits
- 362-475 Ecological Dynamics, 4 credits

###### Field biology, 6 credits required:

- 204-320 Field Botany, 3 credits
- 204-342 Ornithology, 3 credits
- 204-343 Mammalogy, 3 credits
- 362-401 Stream Ecology, 3 credits

###### Biophysical interface, 6 credits required:

- 362-320 The Soil Environment, 3 credits
- 362-321 The Soil Environment Laboratory, 1 credit
- 362-342 Environmental Geology, 3 credits
- 362-350 Meteorology, 3 credits
- 362-434 Environmental Chemistry, 4 credits
- 362-435 Environmental Chemistry Laboratory, 1 credit
- 362-454 Remote Sensing of the Environment, 3 credits
- 416-325 Regional Climatology, 3 credits

###### Resource management, 5 to 6 credits required:

- 362-303 Conservation of Natural Resources, 3 credits
- 362-307 Ecology of Fire, 2 credits
- 362-309 Ecology and Management of Endangered Species, 2 credits
- 362-363 Plants and Forest Pathology, 3 credits
- 362-366 Integrated Pest Management, 3 credits
- 362-460 Resource Management Strategy, 3 credits
- 362-466 Vegetation Management, 3 credits

**Socioeconomic, 3 credits required:**

- 778-301 Environmental Politics and Policy, 3 credits  
 834-340 Economics of Land Use, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-378 Environmental Law, 3 credits

**■ Physical Resources Management****Supporting Courses, 28-29 credits**

- 266-155 Microcomputers and End-User Applications, 3 credits  
 296-202 Physical Geology, 4 credits  
 600-201 Calculus for the Management and Social Sciences, 3 credits  
 OR  
 600-202 Calculus and Analytical Geometry I, 4 credits  
 600-260 Introductory Statistics, 4 credits

A minimum of 14 credits in 100- or 200-level chemistry, biology, physics, or earth science laboratory courses. These credits must be chosen from a minimum of two disciplinary subject areas.

**Upper-Level Courses, 30 credits****Core courses, 9 credits:**

- 362-303 Conservation of Natural Resources, 3 credits  
 OR  
 362-460 Resource Management Strategy, 3 credits  
 362-454 Remote Sensing of the Environment, 3 credits  
 OR  
 416-353 Air Photo Interpretation, 3 credits  
 362-390 Scientific Applications of Computing, 3 credits

**Physical resources, 6 to 9 credits:**

- 362-320 The Soil Environment, 3 credits  
 362-321 The Soil Environment Laboratory, 1 credit  
 362-330 Hydrology, 3 credits  
 362-331 Oceanography, 3 credits  
 362-350 Meteorology, 3 credits  
 362-434 Environmental Chemistry, 3 credits  
 362-435 Environmental Chemistry Laboratory, 1 credit  
 416-325 Regional Climatology, 3 credits

**Resource management, 9 credits:**

- 362-318, 319 Industrial Pollution Control Techniques and Field Trips, 2, 1 credits  
 362-335 Water and Waste Water Treatment, 3 credits  
 362-342 Environmental Geology, 3 credits  
 362-415 Solar and Alternate Energy Systems, 3 credits  
 362-492 Practicum in Environmental Science, 3 credits  
 362-497 Internship, 3 credits

**Socioeconomic, 3-6 credits:**

- 298-402 Resource Economics Analysis, 3 credits  
 778-301 Environmental Politics and Policy, 3 credits  
 834-322 Regional Planning, 3 credits  
 834-323 Land Use Controls, 3 credits  
 834-340 Economics of Land Use, 3 credits  
 834-356 Environmental Impact Analysis, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-378 Environmental Law, 3 credits

NOTE: physical resources and socioeconomic courses must total 15 credits

**Requirements for the Minor**

Scientific principles form the basis for the minor with particular emphasis upon developing skills in data acquisition, management, and presentation. An environmental science minor is particularly appropriate in combination with a major in one of the sciences or mathematics.

**Supporting Courses, 10 credits**

- 266-155 Microcomputers and End-User Applications, 3 credits  
 362-102 Introduction to Environmental Science, 3 credits  
 600-260 Introductory Statistics, 4 credits

**Upper-Level Courses, 12 credits**

- 362-303 Conservation of Natural Resources, 3 credits  
 362-390 Scientific Applications of Computing, 3 credits  
 362-460 Resource Management Strategy, 3 credits

**A three-credit project in environmental science, satisfied by one of these:**

- 362-484 Senior Honors Project, 3 credits  
 362-492 Practicum in Environmental Science, 3 credits  
 362-497 Internship, 3-12 credits  
 362-498 Independent Study, 1-4 credits

# French

## Disciplinary Major or Minor

**Associate Professor:** Kenneth Fleurant (adviser).

**Assistant Professor:** Nicole Meyer.

Studies in French provide students with the opportunity to develop practical communication skills in French along with an understanding of and appreciation for the literature, culture, and people of France and the rest of the French-speaking world.

Although some students choose to study French primarily for personal growth and intellectual enrichment, the program is intended to prepare students for graduate work, teaching, and the professions, as well as for a variety of occupations in business, industry, and government. French language and culture studies are of great professional value in such fields as music, art, law, history, anthropology, theology, communications, translating and interpreting, international business, personnel work, public relations, management, social work, government service, and politics. Furthermore, proficiency in a foreign language and understanding other cultures are essential for peace and prosperity in a mutually interdependent world.

Because French is offered within a broad program of literature and language at UW-Green Bay, student course work may draw on faculty from *English, German, and Spanish, too. In addition to opportunities that the Center for International Education offers for students to study abroad, the French program also enables students to participate in a semester or month of travel and study in France. A language laboratory with interactive audio equipment, computers, and international television reception also supports language practice and cultural awareness.*

French majors 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 personal preferences and career goals, students may find other interdisciplinary programs appropriate, such as human development or social change and development.

Students desiring teacher preparation in French must combine their studies in French with the professional program in education and with an interdisciplinary program.

Students who begin French study at UW-Green Bay should enroll in Introduction to French 101. Students with previous French study should select a course appropriate to their level—French 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 French adviser.

**Retroactive or Advanced Placement Credit.** Students who have taken French in high school or who have acquired a knowledge of French elsewhere may earn up to 16 additional credits for their previous French study by completing a French course beyond the 101 level. 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 16 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 eight credits.

For example, with four years of high school French, students who complete French 225, Conversation and Composition, with a grade of "B" will receive 16 retroactive credits for French 101, 102, 201, and 202 in addition to the three credits for French 225; students who complete the course with a "C" will receive eight retroactive credits for French 101, 102, 201, and 202 in addition to the three credits for French 225.

## Requirements for the Major

### Lower-Level Courses, 7 credits

554-202 Intermediate French II, 4 credits  
(can be earned through retroactive credit)

554-225 Intermediate Conversation and Composition, 3 credits

### Upper-Level Courses, 24 credits

#### Required:

554-325 Advanced Conversation and Composition, 3 credits

554-329 Representative French Authors, 3 credits

554-354 France Today, 3 credits

OR

554-355 Le Monde Francophone, 3 credits

#### Minimum of 3 credits from:

554-329 Representative French Authors, 3 credits

554-333 French Literary Themes, 3 credits

554-350 Major French Drama, 3 credits

554-351 Major French Fiction, 3 credits

554-498 Independent Study, 3 credits

#### Minimum of 12 credits from:

493-376 Cultural Conflict in French Canada, 3 credits

554-329 Representative French Authors, 3 credits

554-330 French Television for Conversation, 3 credits

554-333 French Literary Themes, 3 credits

554-335 French Literary Eras, 3 credits

554-345 Advanced French Grammar and Translation, 3 credits

554-346 French Phonetics and Public Speaking, 3 credits

554-350 Major French Drama, 3 credits

554-351 Major French Fiction, 3 credits

554-354 France Today, 3 credits

554-355 Le Monde Francophone, 3 credits

554-366 January in Paris, 3 credits

554-483 Business French, 3 credits

554-498 Independent Study

(in advanced language, literature, or cultural studies;  
with adviser's consent)

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

## Requirements for the Minor

### Lower-Level Courses, 7 credits

554-202 Intermediate French II, 4 credits

(can be earned through retroactive credit)

554-225 Intermediate Conversation and Composition, 3 credits

### Upper-Level Courses, 12 credits

#### Required:

554-325 Advanced Conversation and Composition, 3 credits

554-329 Representative French Authors, 3 credits

#### Minimum of 6 credits from:

493-376 Cultural Conflict in French Canada, 3 credits

554-329 Representative French Authors, 3 credits

554-330 French Television for Conversation, 3 credits

554-333 French Literary Themes, 3 credits

554-335 French Literary Eras, 3 credits

554-345 Advanced French Grammar and Translation, 3 credits

554-346 French Phonetics and Public Speaking, 3 credits

554-350 Major French Drama, 3 credits

554-351 Major French Fiction, 3 credits

554-354 France Today, 3 credits

554-355 Le Monde Francophone, 3 credits

554-366 January in Paris, 3 credits

554-483 Business French, 3 credits

554-498 Independent Study

(in advanced language, literature, or cultural studies;  
with adviser's consent)

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

# General Studies

## Interdisciplinary Major

Director: Katharine Olski

A general studies major helps students to gain skills which enable them to manage people, information, and products. They may 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.

The general studies major is offered through the Extended Degree Program. It is designed to serve Wisconsin residents age 25 and over who are employed more than half time or who have family responsibilities precluding attendance at regularly scheduled traditional on-campus classes.

Each student has an individualized area of emphasis which can be career-related or focus on a particular area of special interest. The focus for the area of emphasis may come from the primary areas of Business and Economics, Natural Science, Social Science, or Humanities and Fine Arts. Students may want to develop an interdisciplinary specialization of their own choice or do an in-depth study in a single discipline.

Students have opportunities to bring their own interests into their course of study. The combination of elective courses, area of emphasis courses, and required courses adds up to a substantial concentration of knowledge, tailored to individual needs.

The general studies major serves as suitable preparation for graduate work in a number of professional programs.

Extended Degree students complete 124 credits for a Bachelor of Arts degree including 61 elective credits, 48 major requirements credits, and 15 credits in the area of emphasis. Specific coursework is selected in consultation with an Extended Degree Program adviser.

## Requirements for the Major

### Supporting Courses, 6 credits

Adult Learning Seminar, 2 credits  
Problem Solving, 4 credits

### Communication Skills, 6 credits

Writing/Information Search, 2 credits  
Speaking/Listening Skills, 2 credits  
Numerical Skills, 2 credits

### Business and Economics, 9 credits

Accounting/Finance, 3 credits  
Management/Marketing, 3 credits  
Economic Concepts, 3 credits

### Humanities and Fine Arts, 9 credits

#### Choose from:

Fine Arts, 3 credits  
Philosophy, 3 credits  
Literature, 3 credits  
History, 3 credits

### Natural Science, 9 credits

#### Choose from:

Human or Plant Biology, 3 credits  
Consumer Chemistry or Applied Physics, 3 credits  
Physical Geography, 3 credits  
Resource Utilization or Natural and Industrial Environment, 3 credits

### Social Science, 9 credits

Contemporary Social Thought, 3 credits  
Research Methods, 3 credits  
Application to Contemporary Problems, 3 credits

### Area of Emphasis, 15 credits

Courses are selected to meet individual needs.

# Geography

## Disciplinary Major or Minor

Professors: William Kuepper; William Laatsch.

Associate Professors: William Niedzwiedz (chairperson).

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. Geography majors also may prepare for study beyond the bachelor's degree in geography and allied fields. Students who want preparation to teach should seek advice early from advisers in geography and education, to make sure they complete all requirements.

Geography majors combine their studies with an interdisciplinary program. Depending on their career goals, students might effectively combine geography with programs in business administration, regional analysis, science and environmental change, urban 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. Also, students are encouraged to gain practical experience through internships with agencies and organizations in the region and through practical course projects.

## Requirements for the Major

### Supporting Courses, 9 credits required

296-202 Physical Geology, 4 credits  
416-250 Displays of Geographic Information, 3 credits  
416-102 World Regions and Concepts: A Geographic Analysis, 3 credits

OR

416-202 Introduction to Cultural Geography, 3 credits

#### Recommended courses:

246-133 Fundamentals of Public Address, 3 credits  
255-205 Social Science Statistics, 4 credits  
OR  
600-260 Introductory Statistics, 4 credits  
266-256 Introduction to Computer Science I, 4 credits  
552-105 Expository Writing, 3 credits

### Upper-Level Courses, 24 credits required

#### Physical Geography (one course required):

416-320 Landform Geography: Topics and Regions, 3 credits  
416-325 Regional Climatology, 3 credits  
416-380 Geomorphic Processes, 3 credits  
416-420 Soil Classification and Geography, 3 credits  
416-421 Soils and Geology of Wisconsin Field Trip, 2 credits  
416-470 The Glacial Environment and Chronology, 3 credits

#### Cultural Geography (one course required):

416-341 The City and Its Regional Context, 3 credits  
416-342 Settlement Geography, 3 credits  
416-368 The Geopolitics of World Regions, 3 credits

**Regional Geography (one course required):**

- 416-371 Geography of the United States and Canada, 3 credits  
 416-372 Analysis of Great Lakes Regions of North America, 3 credits  
 416-377 Analysis of Northern Lands, 3 credits  
 416-378 Geography of Conflict Areas, 3 credits

**Geographic Techniques (two courses required):**

- 416-350 Geographic-Land Information Systems, 3 credits  
 416-351 Elements of Cartography, 3 credits  
 416-353 Air Photo Interpretation, 3 credits  
 834-454 Remote Sensing of the Environment, 3 credits

**Geography Electives (nine credits required):**

Upper-level geography courses in physical, cultural, regional geography and/or geographic techniques and/or:

- 416-483X Selected Topics, 1-4 credits  
 416-497 Internship, 3-12 credits  
 416-498 Independent Study, 1-4 credits

**Requirements for the Minor****Supporting Courses, 6 credits required**

- 416-250 Displays of Geographic Information, 3 credits

**One of the following:**

- 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  
 416-250 Displays of Geographic Information, 3 credits

**Upper-Level Courses, 12 credits required**

Courses selected must come from at least two of the following areas listed in the major: physical geography, cultural geography, regional geography, geographic techniques.

# German

**Disciplinary Major or Minor**

**Professor:** Werner Prange (adviser).

**Assistant Professor:** Jennifer Ham.

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.

Although some students choose to study German primarily for personal growth and intellectual enrichment, the program is intended to prepare students for graduate work, teaching, and other occupations in business, industry, and government. German language and culture studies are of great professional value in such fields as music, art, law, history, anthropology, theology, communications, translating and interpreting, international business, personnel work, public relations, management, social work, government service, and politics. Furthermore, proficiency in a foreign language and understanding of other cultures are essential for peace and prosperity in a mutually interdependent world.

Because German is offered within a broad program of literature and language at UW-Green Bay, student course work may draw on faculty from English, French, and Spanish, too. In addition to opportunities that the Center for International Education offers for students to study abroad, the German program also encourages students to enroll in its January or June Abroad, which provides four weeks of travel and instruction in Germany, and to spend a semester or a year in Germany as exchange students at the University of Kassel. A language laboratory with interactive audio equipment, computers, and international television reception also supports language practice and cultural awareness.

Students majoring in German 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 personal preferences and career goals, students may find other interdisciplinary programs appropriate, such as human development or social change and development.

Students desiring teacher preparation in German must combine their studies in German with the professional program in education and with an interdisciplinary program.

Students who begin German study at UW-Green Bay should enroll in Introduction to German 101 or Intensive German 289. The intensive German workshop aims to develop German communication competency in one semester, during which the workshop meets six hours a day, four days a week. Completing the program is equivalent to completing 16 credits in introductory and intermediate German language courses.

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.

**Retroactive 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 16 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 16 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 eight 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 16 retroactive credits for German 101, 102, 201, and 202 in addition to the three credits for German 225; students who complete the course with a "C" will receive eight retroactive credits for German 101, 102, 201, and 202 in addition to the three credits for German 225.

## Requirements for the Major

### Lower-Level Courses, 7 credits

- 556-202 Intermediate German II, 4 credits (Can be earned as part of 556-289, Intensive German Workshop, 16 credits; can also be earned through retroactive credit.)  
556-225 Intermediate Conversation and Composition, 3 credits

### Upper-level Courses, 24 credits

#### Required:

- 556-325 Advanced Conversation and Composition, 3 credits

#### Minimum of 6 credits from:

- 448-325 History of Modern Germany, 3 credits  
493-361 January/June Abroad: German Culture, 3 credits  
556-356 Contemporary German Culture, 3 credits

#### Minimum of 6 credits from:

- 556-329 Representative German Authors, 3 credits  
556-333 German Literary Themes, 3 credits  
556-335 German Literary Eras, 3 credits  
556-350 Major German Drama, 3 credits  
556-351 Major German Fiction, 3 credits  
556-352 Major German Poetry, 3 credits

#### Minimum of 9 credits from courses listed above or:

- 552-323 Approaches to Literature, 3 credits  
556-483 Deutsche Kultur und Landeskunde, 3 credits  
556-483 Advanced German Grammar, 3 credits  
556-483 German Cinema, 3 credits  
556-498 German Phonetics, 3 credits  
556-498 Business German, 3 credits  
556-498 Scientific German, 3 credits

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

## Requirements for the Minor

### Lower-Level Courses, 7 credits

- 556-202 Intermediate German II, 4 credits (Can be taken as part of 556-289, Intensive German Workshop, 16 credits; can also be earned by retroactive credit.)  
556-225 Intermediate Conversation and Composition, 3 credits

### Upper-Level Courses, 12 credits

#### Required:

- 556-325 Advanced Conversation and Composition, 3 credits  
556-329 Representative German Authors, 3 credits

#### Minimum of 6 credits from:

- 493-361 January/June Abroad: German Culture, 3 credits  
556-333 German Literary Themes, 3 credits  
556-335 German Literary Eras, 3 credits  
556-350 Major German Drama, 3 credits  
556-351 Major German Fiction, 3 credits  
556-352 Major German Poetry, 3 credits  
556-356 Contemporary German Culture, 3 credits

# History

## Disciplinary Major or Minor

**Professors:** Harvey J. Kaye; Craig A. Lockard; Joyce E. Salisbury.

**Associate Professors:** Paul P. Abrahams; David H. Galaty; Norbert H. Gaworek; Peter J. Kellogg (chairperson); Jerrold C. Rodesch.

**Community Lecturers:** James McHale; Ronald A. Pascale.

History is a guide to the present and the future as well as to the past. We cannot understand ourselves or our society without an understanding of our past and the comparative perspective gained from a knowledge of the history of other areas of the world. History helps us appreciate the commonality and diversity of cultures. Thus, students of history are expected to acquire not only a well-rounded knowledge and keen understanding of the origins and evolution of their own country and culture, but that of others.

History's rigorous intellectual discipline, its emphasis on research and writing skills, and its probing of theory and methods of analysis, provide ideal preparation for professional careers, particularly law, business, journalism, teaching, and public relations, and for graduate study in many fields.

Resources in history include faculty with expertise in political, social, economic, diplomatic, cultural and intellectual history and excellent records in teaching and scholarship. Faculty members are trained in American, European, African, Asian, and Latin American history, and in the history of science and international relations. The Area Research Center has an excellent collection of documents for primary research. The library has a well-rounded collection of books, documents, maps and journals.

Students seeking teacher preparation in history should seek advising early from the social studies education adviser.

History majors choose a minor in an interdisciplinary program. Most typical combinations include the interdisciplinary programs in humanistic studies for students interested in gaining a thorough background in human culture and broad exposure to liberal education, and in social change and development for those focusing on social change, institutions, and the like. Students intending to teach at the secondary level generally choose to combine history with the program in human development. All students are encouraged to pursue independent study or distinction in history work with a collaborating faculty member. Students who wish practical experience should consider internships in archives, museums, or publications.

## Requirements for the Major

### Lower-Level Courses, 12 credits

Choose 12 credits; a minimum of 6 credits must be from Category 1:

#### Category 1:

- 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  
448-203 History of Europe, 1300 to 1815, 3 credits  
448-204 History of Europe, 1815 to Present, 3 credits

#### Category 2:

- 448-201 Ancient Civilization, 3 credits  
448-202 The Middle Ages, 3 credits  
448-207 Roots of Black America, 3 credits  
448-208 The Development of Modern Science in Western Society, 3 credits  
448-250 Traditional Asian Civilization, 3 credits  
448-251 Modern Asian Civilization, 3 credits  
448-275 The Vietnam War in Historical Perspective, 3 credits

- 493-250 European Economy and Society, 3 credits  
 493-251 Business and American Life, 3 credits  
 493-274 Red Man in White America, 3 credits  
 875-270 *Third World: Development or Despair*, 3 credits

### Upper-Level Courses, 24 credits

Choose a minimum of 3 credits from each of the 3 categories below. Courses must include at least 1 of the courses marked with an asterisk to assure study of cultural and intellectual history as well as social and political history.

#### Category 1, American History:

- \*448-302 American Thought and Culture I, 3 credits  
 \*448-303 American Thought and Culture II, 3 credits  
 \*448-309 History of Science in Modern Times, 3 credits  
 448-310 American Colonial History, 3 credits  
 448-311 History of Wisconsin, 3 credits  
 448-320 U.S. Military History, 3 credits  
 448-322 Economic and Business History of the U.S., 1876 to Present, 3 credits  
 448-324 American Foreign Relations, 1865 to Present, 3 credits  
 448-375 Great Decisions: Issues and Options in International Affairs, 3 credits  
 448-403 Political and Social History of Modern America, 3 credits  
 \*448-405 History of Technological Change, 3 credits

#### Category 2, European History:

- \*448-306 European Thought and Culture I, 3 credits  
 \*448-307 European Thought and Culture II, 3 credits  
 \*448-309 History of Science in Modern Times, 3 credits  
 448-314 History of the Russian Empire, 3 credits  
 448-315 The Soviet Union from 1917 to the Present, 3 credits  
 448-325 History of Modern Germany, 3 credits  
 448-350 Social History of Europe, 3 credits  
 448-404 Political and Social History of Modern Europe, 3 credits  
 \*448-405 History of Technological Change, 3 credits

#### Category 3, Non-Western History:

- 448-314 History of the Russian Empire, 3 credits  
 448-315 Soviet Union From 1917 to the Present, 3 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  
 448-375 Great Decisions: Issues and Options in International Affairs, 3 credits

#### Required:

- 448-480 Seminar in History, 3 credits

#### Recommended:

- 448-478 Senior Distinction in History, 3 credits  
 448-497 Internship, 3-12 credits  
 448-498 Independent Study, 1-4 credits

#### Other upper-level courses appropriate for the major program:

- 493-332 Art and Social Thought, 3 credits  
 493-341 *Perspectives on Human Values: The Medieval World*, 3 credits  
 493-374 Wisconsin's Indians: Historical and Cultural Perspectives, 2-3 credits  
 493-380 Women in the United States: Historical and Cultural Perspectives, 3 credits  
 493-410 *The Christian Heritage: Birth of Christ to 1600*, 3 credits  
 778-360 International Politics, 3 credits  
 834-368 Geopolitics of World Regions, 3 credits  
 875-320 Constitutional Law, 3 credits  
 875-333 Social Change in Selected Areas, 3 credits  
 875-361 Historical Perspectives on Social Change, 3 credits

## Requirements for the Minor

### Lower-Level Courses, 6 credits

Choose 6 credits from lower-level courses listed under requirements for the major.

### Upper-Level Courses, 12 credits minimum

Choose 12 credits from the list of upper-level courses under the description of the history major. No more than 6 credits may be applied from courses that do not carry the 448 prefix.

# Human Biology

## Interdisciplinary Major or Minor

**Associate Professors:** Charles A. Ihrke; Joseph A. Mannino; Dorothea B. Sager (chairperson); Richard J. Stevens.

**Assistant Professors:** James C. Marker; Donna Ritch.

Human biology focuses on the biological, physiological, anthropological, and behavioral bases of the human organism's ability to adapt to the environment. Core courses emphasize human structure and function, patterns of growth and development, genetics, nutrition, and human evolution and diversity.

Human biology is an appropriate major for students interested in the health sciences, medicine, dentistry, human physiology, exercise physiology, or biology education. Most premedical and pre dental students choose human biology as their interdisciplinary major. It is also appropriate for those students interested in general biology and chemistry. Students interested in pharmaceutical sales, hospital or nursing home administration, or other related health service professions should consider a human biology minor.

Human biology majors complete an area of emphasis. Emphases include:

- **health sciences**, which provides preparation for medical, dental or other health related professional schools or for graduate programs in biological or medical sciences;
- **exercise physiology**, which offers students broad training in exercise science, including exercise physiology, fitness, and human motion;
- **cytotechnology**, offered in affiliation with two schools of cytotechnology, one in Madison, and one in Rochester, Minnesota. Cytotechnology is the microscopic study of human cells primarily for detection of pre-cancer or cancer conditions. This emphasis leads to a major in human biology and professional certification as a registered cytotechnologist.
- **general human biology**, which is appropriate for students seeking careers in secondary science education, industrial, managerial, or sales positions in biological or health-related industries;

Students seeking teaching licensure should consult advisers in education as well as human biology.

Many UW-Green Bay human biology majors continue their studies in graduate or professional schools, including medical and dental schools.

## Requirements for the Major

### Supporting Courses, 23-26 credits

(These courses comprise a common core for human biology majors. Supporting course requirements for emphases other than general human biology vary somewhat.)

#### Category I:

- 204-202 Principles of Biology I, 4 credits  
AND  
204-203 Principles of Biology II, 4 credits  
OR  
204-202 Principles of Biology I, 4 credits  
AND  
478-204 Anatomy and Physiology, 5 credits

#### Category II:

- 600-260 Introductory Statistics, 4 credits  
225-108 General Chemistry, 5 credits  
OR  
225-211, 212 Principles of Chemistry I, II, 10 credits

#### Category III: (6-7 credits)

- 552-105 Expository Writing, 3 credits

### Choose one of these:

- Oral communication  
(e.g., 246-133 Fundamentals of Public Address)  
Literature  
(e.g., 552-104 Introduction to Literature)  
Foreign language  
(one academic year)

### Upper-Level Courses, 9 credits

(These courses comprise a common core for human biology majors. Upper-level course requirements for emphases other than general human biology vary.)

#### One course in three of the four subject areas:

##### Genetics:

- 204-303 Genetics, 3 credits  
OR  
478-310 Human Genetics, 3 credits

##### Human Physiology:

- 478-402 Human Physiology, 3 credits  
OR  
478-350 Principles of Exercise Physiology, 4 credits  
OR  
478-320 Biology of Human Development and Senescence, 3 credits

##### Nutrition:

- 694-300 Human Nutrition, 3 credits  
OR  
694-302 Nutrition and Culture, 3 credits

##### Evolution:

- 478-342 Human Evolution, 3 credits  
OR  
478-364 Human Variability, 3 credits

### Areas of Emphasis, 21 credits minimum

Students must complete requirements in one of the following areas of emphasis. Additional supporting courses are required in some emphases.

#### ■ Health Science Emphasis

Premedical and pre dental students must take Chemistry I and II (225-211, 212) and consult an adviser in the freshman year.

### Supporting Courses, 42-50 credits

#### Category I:

- 204-202, 203 Principles of Biology I, II, 8 credits

#### Category II:

- 225-211, 212 Principles of Chemistry I, II, 10 credits  
600-104 Elementary Functions: Algebra and Trigonometry, 4 credits  
600-202, 203 Calculus and Analytic Geometry I, II, 8 credits  
(Optional if not required for medical or graduate school admission.)  
600-260 Introductory Statistics, 4 credits  
754-103, 104 Fundamentals of Physics I, II, 10 credits

#### Category III:

- 552-105 Expository Writing, 3 credits

### Choose one of these:

- Oral communication  
(e.g., 246-133 Fundamentals of Public Address)  
Literature  
(e.g., 552-104 Introduction to Literature)  
Foreign language  
(one academic year)

### Upper-Level Courses

#### Required:

- 204-302 Principles of Microbiology, 4 credits  
225-302, 303 Organic Chemistry I, II, 6 credits

- 225-304, 305 Organic Chemistry Laboratory I, II, 2 credits  
 225-311 Analytical Chemistry, 4 credits

**Choose three of these:**

- 204-303 Genetics, 3 credits  
 478-342 Human Evolution, 3 credits  
 478-402 Human Physiology, 3 credits  
 694-300 Human Nutrition, 3 credits

**Recommended:**

- 204-307 Cell Biology, 4 credits  
 204-340 Comparative Anatomy of Vertebrates, 4 credits  
 204-347 Developmental Biology, 4 credits  
 204-407 Molecular Biology, 3 credits  
 204-408 Molecular Biology Laboratory, 1 credit  
 225-330 Biochemistry, 3 credits  
 478-413 Neurophysiology, 3 credits

■ **Exercise Physiology Emphasis**

**Supporting Courses**

**Category I:**

- 204-202 Principles of Biology I, 4 credits  
 478-204 Anatomy and Physiology, 5 credits

**Category II:**

- 225-108 General Chemistry, 5 credits  
 OR  
 225-211, 212 Principles of Chemistry I, II, 10 credits

- 600-260 Introductory Statistics, 4 credits

**Category III:**

- 552-105 Expository Writing, 3 credits

**Choose one of these:**

- Oral communication  
 (e.g., 246-133 Fundamentals of Public Address)  
 Literature  
 (e.g., 552-104 Introduction to Literature)  
 Foreign language  
 (one academic year)

**Also required:**

- 225-300 Bio-Organic Chemistry, 3 credits  
 742-116 First Aid and Emergency Care Procedures, 2 credits  
 742-117 Cardiopulmonary Resuscitation, 1 credit

**Upper-Level Courses**

**Required:**

- 478-320 Biology of Human Development and Senescence, 3 credits  
 478-333 Principles of Sports Physiology, 3 credits  
 478-342 Human Evolution, 3 credits  
 OR  
 478-364 Human Variability, 3 credits  
 478-350 Principles of Exercise Physiology, 4 credits  
 478-351 Kinesiology, 3 credits  
 694-300 Human Nutrition, 3 credits

**Recommended:**

- 216-382 Introductory Management, 3 credits  
 302-462 The Adult Learner, 3 credits  
 478-402 Human Physiology, 3 credits  
 478-497 Internship, 2-4 credits  
 (No more than 3 credits may apply toward the major.)  
 742-406 Prevention and Treatment of Athletic Injuries, 2 credits  
 820-300 Experimental Psychology, 4 credits  
 820-311 Psychology of Sports and Exercise, 3 credits

■ **Cytotechnology Emphasis**

UW-Green Bay is affiliated with two schools of cytotechnology: Mayo School of Cytotechnology, Rochester, Minnesota, and the Wisconsin State Laboratory of Hygiene, UW-Madison. Students complete 92 credits at UWGB, including all general-education requirements (senior seminar also), 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.

**Supporting Courses**

**Category I:**

- 204-202, 203 Principles of Biology I, II, 8 credits

**Category II:**

- 225-211, 212 Principles of Chemistry I, II, 10 credits  
 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits  
 600-260 Introductory Statistics, 4 credits

**Category III:**

- 552-104 Introduction to Literature, 3 credits  
 552-105 Expository Writing, 3 credits

**Recommended:**

- 481-210 Introduction to Human Development, 3 credits  
 493-204 Humanistic Values Through Literature, 3 credits  
 820-205 Psychology of Human Adjustment, 3 credits  
 900-202 Introduction to Sociology, 3 credits

**Upper-Level Courses**

Choose one course from three of these four subject areas:

**Genetics:**

- 204-303 Genetics, 3 credits  
 OR  
 478-310 Human Genetics, 3 credits

**Human Physiology:**

- 478-402 Human Physiology, 3 credits

**Nutrition:**

- 694-300 Human Nutrition, 3 credits  
 OR  
 694-302 Nutrition and Culture, 3 credits

**Evolution:**

- 478-342 Human Evolution, 3 credits  
 OR  
 478-364 Human Variability, 3 credits

**Recommended:**

Additional upper-level courses in human biology, biology, and chemistry will depend upon students' career objectives and choice of clinical facility.

■ **General Human Biology Emphasis**

**Supporting Courses**

Refer to supporting courses listed immediately following "Requirements for the Major."

**Upper-Level Courses**

Students choose nine credits of core upper-level courses from the array described following "Requirements for the Major." Remaining upper-level courses depend upon student's interests and needs and should be selected with the help of an adviser.

## Requirements for the Minor

The interdisciplinary minor in human biology is taken in conjunction with a disciplinary major. It provides an overview of the field of human biology. For the minor, there must be at least 12 credits of upper-level courses that are not duplicated by major requirements.

### Supporting Courses, 8-9 credits

- 204-202 Principles of Biology I, 4 credits  
AND  
204-203 Principles of Biology II, 4 credits  
OR  
204-202 Principles of Biology I, 4 credits  
AND  
478-204 Anatomy and Physiology, 5 credits

### Upper-Level Courses, 12-13 credits

Choose one course from each area:

#### Genetics:

- 204-303 Genetics, 3 credits  
OR  
478-310 Human Genetics, 3 credits

#### Human Physiology and Anatomy:

- 478-350 Principles of Exercise Physiology, 4 credits  
OR  
478-320 Biology of Human Development and Senescence, 3 credits  
OR  
478-402 Human Physiology, 3 credits

#### Nutrition:

- 694-300 Human Nutrition, 3 credits  
OR  
694-302 Nutrition and Culture, 3 credits

#### Evolution:

- 478-342 Human Evolution, 3 credits  
OR  
478-364 Human Variability, 3 credits

## Human Development

### Interdisciplinary Major or Minor

**Professors:** Fergus P. Hughes; Richard D. Logan.

**Associate Professors:** Illene C. Noppe; Lloyd D. Noppe (chairperson); Dean Rodeheaver.

**Assistant Professors:** James G. Elicker; Dennis N. Lorenz; Timothy J. Sewall; Joanne M. Stohs.

**Lecturer:** Andrea Dinsmore.

Human development is concerned with the lives of people from conception to death. It provides a basic understanding of changes, tasks, and crises that occur throughout the normal life span and examines factors that promote both normal development and deviations from normal development. It is an interdisciplinary program that covers the contributions of psychologists, biologists, anthropologists, and sociologists to our understanding of the human life cycle.

Students who plan careers that involve working with or knowing about people may major or minor in human development in order to acquire a broad background about human change and behavior. Depending upon their particular directions or goals, students select one of five possible emphases within human development. Students can create other valuable programs in consultation with an adviser. For example, a human development major might be combined with minors in women's studies, native American studies, sociology, anthropology, or communication processes (linguistics).

Emphases in human development are:

- **General human development** would support careers in human resources, human services, and health-related fields, or serve as a stepping stone to graduate work in human development, developmental psychology, child and adolescent development, and similar programs. Career possibilities range from youth services worker to college professor to adoption agency official to children's librarian to career consultant to student affairs dean. Some jobs require master's degrees or doctoral level preparation.
- **The preclinical/precounseling emphasis** is for students who want to gain pre-professional education prior to further training for therapeutic careers. A master's or doctoral degree is almost certainly required for appropriate licensure to practice counseling or clinical psychology. Combining this emphasis with a minor or a second major in psychology is advisable. Entrance into graduate school programs is highly competitive and students should plan their programs carefully with their adviser.
- **The family studies emphasis** will help students focus upon life span changes and the interactions among social, individual, and family experiences. This emphasis serves as preparation for careers in work settings such as parent educator, human services worker, family therapist or counselor, employee assistance administrator, or childbirth instructor. Family studies can lead to graduate work in family and human development, marriage and family therapy, developmental psychology, and related areas.
- **The gerontology emphasis** is oriented toward the physical and socioemotional changes of the individual 65 years of age and older. Careers may be found in federal, state, and local agencies concerned with aging, as well as public and private institutions dealing with long-term care. The emphasis will serve students who want to pursue graduate study and research in gerontology.
- **Early childhood development** will help prepare students to work in child care and preschool settings that do not now require Department of Public Instruction (DPI) teacher certification. In order to obtain a DPI credential, a student will need to major in elementary education, with an extension to early childhood.

The human development program recently assumed management of the University's Children's Center and is working to improve the program, upgrade the facility, and integrate student and faculty research and observation opportunities. The program also maintains the University's physiological laboratory which emphasizes student and faculty research. Human development maintains an extensive collection of psychological and educational tests for classroom, community, and scholarly use.

#### Program Entrance Requirements

Students are admitted to the human development major only upon the completion of a minimum of 30 credits of college level course work with a grade point average of at least 2.5 on a scale of 4.0. Students must maintain this standard through graduation. Requirements are subject to annual change.

The human development minor provides a broad, interdisciplinary complement to traditional social science majors such as sociology or psychology; offers a strong, liberal arts underpinning to professional programs such as education, social work, or business administration; or relates effectively to other interdisciplinary majors in human biology, communication and the arts, or social change and development.

## Requirements for the Major

### Supporting Courses, 12-13 credits

- 255-205 Social Science Statistics, 4 credits  
OR  
600-260 Introductory Statistics, 4 credits  
478-102 Introduction to Human Biology, 3 credits  
OR  
478-110 Introduction to Physical Anthropology, 3 credits  
481-210 Introduction to Human Development, 3 credits  
OR  
820-102 Introduction to Psychology, 3 credits  
156-100 Varieties of World Culture, 3 credits  
OR  
900-202 Introduction to Sociology, 3 credits

### Upper-Level Requirements, 27 credits

#### Life-span core courses, 9 credits required:

- 481-331 Infancy and Early Childhood, 3 credits  
481-332 Middle Childhood and Adolescence, 3 credits  
481-343 Adulthood and Aging, 3 credits

#### Biological course, 3 credits required:

Choose one course from this list.

- 478-310 Human Genetics, 3 credits  
478-313 Brain Functions in Human Behavior, 3 credits  
478-320 Biology of Human Development and Senescence, 3 credits  
478-342 Human Evolution, 3 credits  
478-364 Human Variability, 3 credits  
478-402 Human Physiology, 3 credits  
820-308 Physiological Psychology, 3 credits

### Areas of Emphasis

Students choose 15 credits within an area of emphasis.

#### ■ General Human Development Emphasis

##### Required:

- 481-435 Abnormal Behavior, 3 credits

##### Choose at least four courses from this list:

- 481-333 Observation and Interpretation of Child Behavior, 3 credits  
481-334 Play and Creative Activities in Childhood, 3 credits  
481-336 Gender Roles, 3 credits  
481-342 Cross-Cultural Human Development, 3 credits  
481-344 Death: The Final Stage of Life, 3 credits  
481-352 Social and Family Influences on Early Development and Learning, 3 credits

- 481-420 Tests and Measurements, 3 credits  
481-429 Theories of Personality, 3 credits  
481-431 Cognitive Development, 3 credits  
481-436 Counseling with Children and Adolescents, 3 credits  
481-437 Counseling with Adults and the Aged, 3 credits  
481-441 History, Philosophy and Current Programs in Early Childhood Education, 3 credits  
481-495 Language Acquisition in Childhood, 3 credits

#### ■ Preclinical/Precounseling Emphasis

- 481-420 Tests and Measurements, 3 credits  
481-429 Theories of Personality, 3 credits  
481-435 Abnormal Behavior, 3 credits  
481-436 Counseling with Children and Adolescents, 3 credits  
481-437 Counseling with Adults and the Aged, 3 credits

In consultation with an adviser, one of these courses may be substituted for one course from the list above:

- 302-322 Educational Psychology, 3 credits  
481-334 Play and Creative Activities in Childhood, 3 credits  
481-344 Death: The Final Stage of Life, 3 credits  
820-309 Psychology of Motivation, 3 credits  
820-450 Psychology of Stress and Adaptation, 3 credits  
820-466 Clinical and Community Psychology, 3 credits  
900-304 Deviant Behavior, 3 credits

#### ■ Family Studies Emphasis

- 156-304 Family, Kin and Community, 3 credits  
481-336 Gender Roles, 3 credits  
875-340 Women, Work and Family, 3 credits  
900-308 Sociology of the Family, 3 credits

Choose, with an adviser, at least one of these courses:

- 481-342 Cross-Cultural Human Development, 3 credits  
481-352 Social and Family Influences on Early Development and Learning, 3 credits  
481-497 Internship, 3 credits  
(An internship in a family-oriented agency is encouraged.)

#### ■ Gerontology Emphasis

- 302-462 The Adult Learner, 3 credits  
478-320 Biology of Human Development and Senescence, 3 credits  
481-344 Death: The Final Stage of Life, 3 credits  
481-437 Counseling with Adults and the Aged, 3 credits

In consultation with an adviser, choose at least one other relevant course.

One of these is also encouraged:

- 481-484 Senior Honors Project, 3 credits  
481-497 Internship, 3 credits (In an approved agency.)  
481-498 Independent Study, 3 credits

#### ■ Early Childhood Development Emphasis

- 481-333 Observation and Interpretation of Child Behavior, 3 credits  
481-334 Play and Creative Activities in Childhood, 3 credits  
481-441 History, Philosophy, and Current Programs in Early Childhood Education, 3 credits

In consultation with an adviser, choose at least two of these:

- 481-336 Gender Roles, 3 credits  
481-342 Cross-Cultural Human Development, 3 credits  
481-352 Social and Family Influences on Early Development and Learning, 3 credits  
481-429 Theories of Personality, 3 credits  
481-431 Cognitive Development, 3 credits  
OR  
302-322 Educational Psychology, 3 credits  
481-435 Abnormal Behavior, 3 credits  
481-436 Counseling with Children and Adolescents, 3 credits

## Requirements for the Minor

### Supporting Courses, 6 credits

- 481-210 Introduction to Human Development, 3 credits  
OR  
820-102 Introduction to Psychology, 3 credits

#### Choose one of these:

- 156-100 Varieties of World Culture, 3 credits  
156/478-110 Introduction to Physical Anthropology, 3 credits  
478-102 Introduction to Human Biology, 3 credits  
900-202 Introduction to Sociology, 3 credits

### Upper-Level Courses, 12 credits

Select 12 credits from among courses listed below and the list of biological courses in "Requirements for the Major."

- 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

And, list of biological courses.

# Humanistic Studies

## Interdisciplinary Major or Minor

**Professors:** Sidney Bremer; Elmer Havens; Walter Herrscher (chairperson); Frederick Kersten; Estella Lauter; Werner Prange; Joyce Salisbury; E. Michael Thron.

**Associate Professors:** Paul Abrahams; Orville Clark; Kenneth Fleurant; David Galaty; Norbert Gaworek; Gary Greif; Peter Kellogg; Michael Murphy; Gilbert Null; Jerrold Rodesch; Thomas Tasch.

**Assistant Professors:** R. McKenna Brown; Jennifer Ham; E. Nicole Meyer.

**Lecturers:** Jo Chern; Dianne Marlett; Denise Sweet; Joan Thron; Linda Toonen; Carol Van Egeren; Carlos Vela-Bueno.

Humanistic studies offers a program that is personally enriching and professionally practical and which complements other programs of study.

At its core is a set of courses called Perspectives on Human Values which explore how and why values have developed and been expressed in various historical periods. These interdisciplinary courses stress connections among history, philosophy, religion, music, literature, language, art, technology and science.

In addition to the core program, humanistic studies students choose courses in one of three emphases: **values studies**, **cultural studies**, or **religious studies**. The emphases, in conjunction with a great works requirement, are designed to educate students about the main ideas, ideals, movements and creative works that are part of our cultural heritage.

Humanistic studies provides not only cultural enrichment but it also helps to prepare students for careers in such fields as government, education, religion, human services, and journalism. It offers as well the liberal education background that recruiters often seek for positions in business and industry. The intellectual skills that humanities courses develop—the ability to write and speak effectively, to think creatively, analytically and critically, and to think contextually—are valuable in any career.

The humanistic studies program is also appropriate in combination with other courses of study. It is a natural accompaniment to majors or minors in history, philosophy, English, French, German or Spanish as well as to minors in American Indian Studies, Women's Studies, and International Studies. It also provides a different dimension to the programs of students in such areas as business, psychology, sociology, political science or science. And in conjunction with other courses of study, humanistic studies is an excellent preparation for pre-professional training in law, dentistry, medicine or engineering as well as for many graduate programs. Studies have shown, for example, that nationally, humanities majors do better on widely used standardized tests for admission to graduate and professional schools than do majors in other areas.

## 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 the cultural studies emphasis as part of their 24-credit upper-level program.

**Supporting Courses, 9 credits**

Choose nine credits from humanistic studies courses or from at least two of the following disciplines:

history  
literature  
philosophy  
foreign languages (must be at 200-level or above to meet requirement)

**Upper-Level Courses, 24 credits****Perspectives on Human Values Series**

Choose two courses totaling 6 credits:

- 493-340 Perspectives on Human Values: The Classical World, 3 credits  
493-341 Perspectives on Human Values: The Medieval World, 3 credits  
493-342 Perspectives on Human Values: Renaissance to Enlightenment, 3 credits  
493-343 Perspectives on Human Values: Romanticism to Naturalism, 3 credits  
493-344 Perspectives on Human Values: The Modern Period, 3 credits

**Great Works**

Three credits are required.

Course content is variable and courses may be repeated with different topics. It is recommended that students choose works created in the ages they studied in "Perspectives on Human Values."

- 493-345 Great Works of the Classical World, 1-3 credits  
493-346 Great Works of the Medieval World, 1-3 credits  
493-347 Great Works of the Renaissance through Enlightenment, 1-3 credits  
493-348 Great Works of Romanticism and Naturalism, 1-3 credits  
493-349 Great Works of the Modern World, 1-3 credits

**Capstone Seminar**

Required of seniors:

- 493-480 Humanities Seminar, 3 credits

**Electives**

Students must choose six elective credits from upper-level humanistic studies courses to total 24 credits in the major. With advice, credits may be chosen from upper-level courses in literature, language, history, or philosophy.

**Areas of Emphasis**

Choose 6 credits from one of the following areas to complete an emphasis:

**■ Values Studies**

- 493-302 Human Identity, 3 credits  
493-332 Art and Social Thought, 3 credits  
493-333 Utopia and Anti-Utopia, 3 credits  
493-340 Perspectives on Human Values: The Classical World, 3 credits  
493-341 Perspectives on Human Values: The Medieval World, 3 credits  
493-342 Perspectives on Human Values: Renaissance to Enlightenment, 3 credits  
493-343 Perspectives on Human Values: Romanticism to Naturalism, 3 credits  
493-344 Perspectives on Human Values: The Modern Period, 3 credits  
493-380 Women in the United States: Historical and Cultural Perspectives, 3 credits

**■ Cultural Studies**

- 493-354 France Today, 3 credits  
493-356 Contemporary German Culture, 3 credits  
493-358 Latin America Today, 3 credits  
493-359 The Americas Look at Each Other, 3 credits  
493-361 January/June Abroad: German Culture, 3 credits  
493-363 January Abroad: Mexico, 3 credits  
493-365 January Abroad: England and Its Heritage, 3 credits  
493-366 January in Paris, 3 credits  
493-371 American Indian Art and Artists, 3 credits  
493-374 Wisconsin Indians: Historical and Cultural Perspectives, 2-3 credits  
493-376 Cultural Conflict in French Canada, 3 credits  
493-483 Spain Today, 3 credits

**■ Religious Studies**

- 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  
493-364 Women and Religion, 3 credits  
493-410 The Christian Heritage: Birth of Christ to 1600, 3 credits

**Requirements for the Minor****Supporting Courses, 6 credits**

Choose 6 credits in history, literature, philosophy, humanistic studies or foreign languages.

**Upper-Level Courses, 6 credits minimum**

Choose two courses from the Perspectives on Human Values sequence.

**Electives, 6 credits minimum**

Choose two courses from among the upper-level offerings in humanistic studies.



# Information and Computing Science

## Interdisciplinary Major and Minor

**Professors:** Dennis Girard (mathematics); Timothy Meyer (electronic media).

**Associate Professors:** Clifford Abbott (linguistics) [chairperson]; Forrest Baulieu (computer science); Phillip Clampitt (communications); Charles Matter (psychology); Bruce Mielke (computer science); William Shay (computer science).

**Lecturer:** Linda Curl (computer science).

The central organizing concept of this major is information—its structures in verbal, visual, and quantitative forms, its storage, processing and communication by both machines and people. The program is new and developing. Students can expect curricular additions and changes as development proceeds.

The curriculum ranges widely across several disciplines, all of which are represented in the core requirements: computing, linguistics, cognitive psychology, communication theory, mathematics, data technologies, organizational communication and management, logic, and language.

Computing is a significant dimension of this major, but students also are expected to be thoroughly grounded in human language, cognition, and communication. This insures against narrow technical preparation, which leads to rapid obsolescence in a rapidly changing field, and it prepares students to make the most creative and useful applications of information technologies.

A goal of the program is to train students to conceptualize and solve information problems. A core introductory course focuses on information problems; many of the courses are project oriented; and there are opportunities for internship and practica. In addition, 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 some specific career direction.

Career paths for information and computing science 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. Graduates have pursued advanced studies in areas such as computer science and artificial intelligence. Others have entered a wide variety of jobs directly after graduation in the computing, management, and communications fields. Programming, sales, and systems analysis are some of their career areas.

The minor in information and computing science 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 and computing science, UW-Green Bay offers a computer science emphasis within mathematics (both major and minor). These options offer students considerable flexibility in combining computing with other areas (business, cartography, communications, electronic media, cognitive science, mathematics, etc.), but to be valuable that flexibility requires planning. Early consultation with faculty advisers is recommended.

## Requirements for the Major

### Supporting Courses, 11 credits

One year of foreign language  
736-111 Elementary Logic, 3 credits

### Core Courses, 27 credits

266-256 Introduction to Computer Science I, 4 credits  
266-257 Introduction to Computer Science II, 4 credits  
520-210 Information Problems, 3 credits  
520-220 Controlling Bibliographic Information, 3 credits  
600-242 Discrete Mathematics, 4 credits

#### One of these:

242-231 Introduction to Graphic Communications, 3 credits  
168/246-243 Introduction to Photography, 3 credits  
416-250 Displays of Geographic Information, 3 credits

### Upper-Level Courses, 27 credits

246-322 Modern Linguistics, 3 credits  
246-326 Modern Semantics, 3 credits  
266-351 Data Structures, Storage and Retrieval, 3 credits  
266-352 Computer Graphics, 3 credits  
266-357 Theory of Programming Languages, 3 credits  
520-308 Information Technologies

#### 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:

266-358 Data Communications and Computer Networks, 3 credits  
266-455 Microcomputers and Digital Electronics, 3 credits  
362-454 Remote Sensing of the Environment, 3 credits

### Area of Application, 9 credits

The area of application affords an opportunity for students to develop expertise in a particular dimension of information processing. The examples here show some typical possibilities. Others can be created with an adviser.

#### ■ Management of Information Resources

266-451 Database Management Systems, 3 credits  
266-452 Operating Systems, 3 credits  
520-402 Expert Systems, 3 credits

#### ■ Computer-Based Information Systems

216-452 Advanced Microcomputer Business Applications, 3 credits  
266-451 Database Management Systems, 3 credits  
266-454 Artificial Intelligence, 3 credits

## Requirements for the Minor

### Lower-Level Courses, 6 credits

266-155 Microcomputers and End-User Applications, 3 credits  
520-210 Information Problems, 3 credits

### Upper-Level Courses, 12 credits

520-308 Information Technologies, 3 credits  
520-430 Information, Media and Society, 3 credits

#### 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, Storage and Retrieval, 3 credits  
820-417 Psychology of Cognitive Processes, 3 credits

# International Studies

## Interdepartmental Minor

**Professor:** Werner Prange (chairperson).

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 international studies 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.*

UW-Green Bay graduates with international studies minors are teaching in a variety of fields, including English as a second language; working in international development agencies and international business; working in social service and refugee resettlement agencies; and pursuing many other fields. Several have earned advanced degrees in graduate programs.

International studies is jointly offered by the programs in social change and development, humanistic studies, and regional analysis.

Students have several options in developing a course of study. Students with majors in humanistic studies, regional analysis, or social change and development may select international studies as either a regular minor or as an area of emphasis within their major program. Students with other interdisciplinary majors, such as business administration or urban and public affairs, can also select international studies as a regular minor. Students with disciplinary majors such as history, anthropology, political science, economics, or literature and language, can select international studies as a second minor alongside a regular interdisciplinary minor.

## Requirements for the Minor

### Supporting Courses, 9 credits

- 156-100 Varieties of World Culture, 3 credits
- 416-102 World Regions and Concepts: A Geographic Analysis, 3 credits
- 448-100 History of the Modern World, 3 credits

### Competency in foreign language, 16 credits:

Four semesters of study or equivalent.

### Lower and Upper-Level Courses, 18 credits

*Of the 18 credits required, 12 must be at the upper level.*

#### Required:

- 448-375 Great Decisions: Issues and Options in International Affairs, 3 credits

#### Courses focusing on a particular region or country, 6 credits:

Students choose courses on one area such as China, Mexico, Africa, the Soviet Union, Malaysia, Latin America, Southeast Asia, Britain, or Western Europe.

#### The following courses meet this requirement:

- 448-204 History of Europe From 1815 to the Present, 3 credits
- 448-250 Traditional Asian Civilization, 3 credits
- 448-251 Modern Asian Civilization, 3 credits
- 448-307 European Thought and Culture, 3 credits
- 448-314 History of the Russian Empire, 3 credits
- 448-315 Soviet Union From 1917 to the Present, 3 credits
- 448-325 History of Modern Germany, 3 credits
- 448-350 Social History of Europe, 3 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
- 448-404 Political and Social History of Modern Europe, 3 credits
- 493-102 Foundations of Western Culture II, 3 credits
- 493-250 European Economy and Society, 3 credits
- 493-354 France Today, 3 credits
- 493-356 Contemporary German Culture, 3 credits
- 493-358 Latin America Today, 3 credits
- 493-359 The Americas Look at Each Other, 3 credits
- 834-392 Analysis of South Asia, 3 credits
- 875-333 Social Change in Selected Areas, 3 credits

#### Area of Emphasis, 9 upper-level credits minimum:

Several possible emphases are available such as international business, area studies (Asia, Latin America, Western Europe, Africa), international development, or diplomacy/international politics. Students can put together an appropriate specialization and suitable interdisciplinary mix through consultation with the program coordinator and other advisers.

# Literature and Language

## Disciplinary Majors and Minors in English, French, German, Spanish (see English, French, German, Spanish)

**Professors:** Sidney H. Bremer (chairperson); Martin Greenberg; Elmer Havens; Walter Herrscher; Estella Lauter; Werner Prange; E. Michael Thron.

**Associate Professors:** Kenneth Fleurant; Michael Murphy; Philip Thompson.

**Assistant Professors:** R. McKenna Brown; Jennifer Ham; Nicole Meyer.

**Lecturers:** Carlos Vela-Bueno; Jo Chern; Denise Sweet; Joan Thron.

The literature and language program offers majors and minors in English, French, German, and Spanish. All are intended to develop students' understanding of—and appreciation for—important works of literature and the richness of humanity's cultural heritage. All seek, as well, to develop students' communication skills in both written and spoken forms.

Graduates have found satisfying careers in teaching, international business, translating and interpreting, personnel work, public relations, business management, social work, government service, and other fields. Literature and language majors are also excellent preparation for graduate study. Certainly, proficiency in the languages of the United States and the world, as well as a literate understanding of cultural diversity both at home and abroad are essential for peace and prosperity in a mutually interdependent world.

Because English, French, German, and Spanish are all offered within a broad program of literature and language at UW-Green Bay, student course work may draw on a particularly broadly educated faculty. Among the many opportunities that the Center for International Education offers for students to study abroad, the literature and language faculty leads several travel-study programs—to London, to Paris, to the University of Kassel in Germany, and to the Yucatan in Mexico.

A computerized writing center and a foreign language laboratory with interactive audio equipment, computers, and international television reception also support language practice and cultural awareness.

Separate entries in this catalog describe specific requirements for English, French, German, and Spanish majors and minors. Those entries provide further information, as well, about specific opportunities for study abroad.

Students who begin foreign language study at UW-Green Bay should enroll in an introductory level course, numbered 101. Students who have studied a foreign language previously should select a course appropriate to their level—French, German, or Spanish 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 adviser in that language.

### Retroactive or Advanced Placement Credit

Students who have taken French, German, or Spanish in high school or who have acquired a knowledge of one of those languages elsewhere may earn up to 16 additional credits for their previous foreign language study by completing a foreign language course beyond the 101 level. With grade of "B" or better, credit will be given for all courses in that language preceding the one in which the student has enrolled, to a maximum of 16 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 eight 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 16 retroactive 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 eight retroactive credits for Spanish 101, 102, 201, and 202 in addition to the three credits for Spanish 225.

# Mathematics

## Disciplinary Major or Minor

**Professors:** Dennis M. Girard; David Jowett; David Outcalt; Robert B. Wenger.

**Associate Professors:** Forrest B. Baulieu (chairperson); William C. Conley; Gregory Davis; Bruce W. Mielke; Nikitas L. Petrakopoulos; William A. Shay.

**Assistant Professors:** Tian-You Hu; Theodor Korithoski.

**Lecturers:** Linda Curt; Gary Wardall.

The mathematics discipline has undergraduate programs of study in three areas:

- mathematics
- computer science
- statistics

A student who elects a disciplinary major in mathematics must choose an area of emphasis from one of these three programs of study.

Students choosing an area of emphasis in **mathematics** can 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). Students may use their skills in many career fields including those traditional for mathematicians in fields requiring physics or in engineering. Today, mathematical techniques are required in the social, industrial, and management realms as well.

The student who chooses **computer science** as an area of emphasis chooses a field which is undergoing great changes as technology advances. The goal of the computer science emphasis is to provide students with a strong foundation upon which they can continue to build as the profession changes. Students receive instruction in areas such as software and language design, operating systems, database management, computer graphics, and artificial intelligence. They also develop problem solving skills which may be applied to many professions.

The program in **statistics** provides applied courses in experimental design, multivariate statistical analysis, and applied regression analysis. In addition, students can gain an extensive background in statistical computing. Students who wish to enter the actuarial professions may prepare for the first two actuarial examinations by completing the calculus sequence, linear algebra, and the statistical theory sequence. Students who concentrate their studies in statistics may find employment in business, industry, and government, as well as pursue further professional training in graduate school.

Students who wish to earn licensure to teach at the elementary or high school levels should consult with advisers in mathematics and education early in their college years to make sure they meet all certification requirements.

### Program Entrance Requirements.

ACT and University of Wisconsin System placement examinations in mathematics are 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 600-203. Upon earning a "C" or better in 600-203, an additional four credits for 600-202 are granted.

Mathematics majors must choose a minor in an interdisciplinary program. Typical choices would be Information and Computing Science, Environmental Science, or Business Administration.

## Requirements for the Major

### Areas of Emphasis

Each area of emphasis has its own set of requirements.

#### ■ *Mathematics Emphasis, 25-27 credits*

##### Required:

- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-209 Multivariate Calculus, 4 credits
- 600-305 Ordinary Differential Equations, 3 credits
- 600-320 Linear Algebra I, 3 credits
- 600-328 Introduction to Algebraic Structures, 3 credits
- 600-385 Foundations of Geometry, 3 credits

##### Two courses from:

- 600-311 Advanced Calculus, 3 credits
- 600-312 Real Analysis, 3 credits
- 600-321 Linear Algebra II, 3 credits
- 600-410 Complex Analysis, 3 credits

##### Two more courses to be chosen from remaining courses above or from the following list:

- 600-309 Systems of Ordinary Differential Equations, 3 credits
- 600-350 Numerical Analysis, 3 credits
- 600-355 Applied Mathematical Optimization, 3 credits
- 600-360 Theory of Probability, 3 credits
- 600-361 Mathematical Statistics, 3 credits
- 600-416 Orthogonal Functions and Partial Differential Equations, 3 credits

##### Those wishing teacher preparation must add to lower-level requirements:

- 266-256 Introduction to Computer Science I, 4 credits
- 600-260 Introductory Statistics, 4 credits

#### ■ *Computer Science Emphasis, 49 credits*

##### Required:

- 266-256 Introduction to Computer Science I, 4 credits
- 266-257 Introduction to Computer Science II, 4 credits
- 266-351 Data Structures, Storage and Retrieval, 3 credits
- 266-353 Computer Organization and Programming, 3 credits
- 266-357 Theory of Programming Languages, 3 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-242 Discrete Mathematics, 4 credits
- 600-320 Linear Algebra I, 3 credits

##### One of these language courses:

- 266-255 FORTRAN: A Scientific Programming Language, 2 credits
- 266-270 C Programming Language, 2 credits
- 266-271 COBOL: Programming Language, 2 credits
- 266-272 Object-Oriented Programming in C++ , 2 credits

##### Fifteen credits chosen from this list with approval of faculty adviser. Courses must represent a focused area of study.

- 216-451 Design of Computer-Assisted Systems, 3 credits
- 216-452 Advanced Microcomputer Business Applications, 3 credits
- 266-352 Computer Graphics, 3 credits
- 266-358 Data Communications and Computer Networks, 3 credits
- 266-450 Theory of Algorithms, 3 credits
- 266-451 Database Management Systems, 3 credits
- 266-452 Operating Systems, 3 credits
- 266-454 Artificial Intelligence, 3 credits
- 266-455 Microprocessors and Digital Electronics, 3 credits
- 266-456 Advanced Topics in Microcomputing, 3 credits
- 266-457 Compiler Theory, 3 credits
- 600-350 Numerical Analysis, 3 credits
- 600-355 Applied Mathematical Optimization, 3 credits

##### Those wishing teacher preparation must add this requirement:

- 266-155 Microcomputers and End-User Applications, 3 credits

#### ■ *Statistics Emphasis, 36 credits minimum*

##### Required:

- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-209 Multivariate Calculus, 4 credits
- 600-320 Linear Algebra I, 3 credits
- 600-321 Linear Algebra II, 3 credits
- 600-360 Theory of Probability, 3 credits
- 600-361 Mathematical Statistics, 3 credits

##### One course from:

- 008-704 Discrete Multivariate Statistical Analysis, 2 credits
- 008-767 Statistical Design and Analysis of Experiments, 4 credits
- 008-768 Multivariate Statistical Analysis, 4 credits

(Registration in any of the 3 courses above requires a GPA of 3.00 or higher.)

##### Additional courses to reach a total of 24 credits at the 300-level or above must be chosen from remaining courses in the two lists above or from:

- 266-350 Numerical Analysis, 3 credits
- 266-351 Data Structures, Storage and Retrieval, 3 credits
- 266-353 Computer Organization and Programming, 3 credits
- 600-311 Advanced Calculus, 3 credits
- 600-312 Real Analysis, 3 credits
- 600-355 Applied Mathematical Optimization, 3 credits
- 600-410 Complex Analysis, 3 credits

## Requirements for the Minor

### Areas of Emphasis

#### ■ *Mathematics Emphasis, 20 credits*

##### Required:

- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-320 Linear Algebra I, 3 credits

##### Three of the following:

- 600-305 Ordinary Differential Equations, 3 credits
- 600-309 Systems of Ordinary Differential Equations, 3 credits
- 600-311 Advanced Calculus, 3 credits
- 600-312 Real Analysis, 3 credits
- 600-321 Linear Algebra II, 3 credits
- 600-328 Introduction to Algebraic Structures, 3 credits
- 600-350 Numerical Analysis, 3 credits
- 600-355 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
- 600-492 Special Topics in Mathematics, 1-3 credits

##### Students wishing teacher preparation must add these lower-level requirements:

- 266-256 Introduction to Computer Science I, 4 credits
- 600-260 Introductory Statistics, 4 credits

#### ■ *Computer Science Emphasis, 24 credits*

##### Required:

- 266-256 Introduction to Computer Science I, 4 credits
- 266-257 Introduction to Computer Science II, 4 credits
- 600-242 Discrete Mathematics, 4 credits

##### Two of the following:

- 266-351 Data Structures, Storage and Retrieval, 3 credits
- 266-353 Computer Organization and Programming, 3 credits
- 266-357 Theory of Programming Languages, 3 credits

**Two more courses from:**

- 266-350 Numerical Analysis, 3 credits
- 266-352 Computer Graphics, 3 credits
- 266-358 Data Communications and Computer Networks, 3 credits
- 266-450 Theory of Algorithms, 3 credits
- 266-451 Database Management Systems, 3 credits
- 266-452 Operating Systems, 3 credits
- 266-454 Artificial Intelligence, 3 credits
- 266-455 Microprocessors and Digital Electronics, 3 credits
- 266-456 Advanced Topics in Microcomputing, 3 credits
- 266-457 Compiler Theory, 3 credits
- 600-355 Applied Mathematical Optimization, 3 credits

**Students wishing licensure to teach computer science must add this lower-level requirement:**

- 266-155 Microcomputers and End-User Applications, 3 credits

**■ Statistics Emphasis, 24 credits****Required:**

- 600-202 Calculus and Analytic Geometry I, 4 credits
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-260 Introductory Statistics, 4 credits

**Twelve additional credits from:**

- 600-360 Theory of Probability, 3 credits
- 600-361 Mathematical Statistics, 3 credits
- 008-704 Discrete Multivariate Statistical Analysis, 2 credits
- 008-767 Statistical Design and Analysis of Experiments, 4 credits
- 008-768 Multivariate Statistical Analysis, 4 credits

(Registration in 008-704, 767, or 768 requires a GPA of 3.00 or higher.)

## Military Science

**Professional Program**

**Associate Professor:** Richard A. Tuck, LTC, AR, U.S. Army

**Assistant Professor:** Daniel J. Wierichs, CPT, AU, U.S. Army.

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. 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 normally 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.

**Basic Course (Preprofessional).** The basic course is normally taken in the freshman and sophomore years. However, any student may register for any lower-level military science course. No military commitment is incurred and students may withdraw at any time before the end of the second year. Students attend class two hours every week and complete two leadership laboratories each semester. They may participate in a variety of extracurricular activities ranging from social events to rigorous, confidence-building physical activities.

**Advanced Course (Professional).** Satisfactory performance in the basic course, demonstrated leadership potential, and recommendations from program instructors make a student eligible to enter the professional program. Instruction includes introduction of military skills necessary to attend an Officer Basic Course (OBC). Such skills are fundamental to the military profession and serve as the basis for all future branch-directed specialty training. Students attend a six-week advanced camp during the summer between the junior and senior years. Successful completion of the advanced camp is required prior to receiving a commission.

**Two-Year Program.** The military science program also offers a course of study designed specifically for students who are unable to take ROTC during their first two years of college. Such applicants must successfully complete a six-week basic camp prior to or after their junior year of college. Qualified veterans with prior military service and members of the Army Reserve or Army National Guard who have completed their formal training are eligible to enroll in the advanced course without participating in the basic courses.

**Simultaneous Membership Program.** Under this program, a person may enlist in the Army National Guard or Army Reserve, attend basic training, and be qualified to enroll in the advanced course.

**ROTC Scholarships.** Army ROTC offers opportunities for two- and three-year scholarships awarded competitively to students who are already enrolled in college. While there are definite academic standards, emphasis is on the student's total abilities and leadership potential.

Students who attend the basic camp under the two-year program may also compete for two-year scholarships while at camp. These scholarships pay for tuition, textbooks, lab fees, and other educational expenses, plus providing a living allowance of up to \$1,000 each year the scholarship is in effect.

# Music

## Disciplinary Major or Minor

**Professors:** Robert J. Bauer; Trinidad J. Chavez; Arthur L. Cohrs; Lovell G. Ives; Terence J. O'Grady (chairperson).

**Associate Professors:** Margaret E. Chamon; Garry Owens.

**Assistant Professors:** Jeffrey Aaron; Kevin Collins; Sarah Meredith; John Salerno.

**Senior Lecturer:** Cheryl A. Grosso.

The music discipline offers a program leading to a Bachelor of Arts or Science degree with music as a major or minor. The program is accredited by the National Association of Schools of Music (NASM). Music majors choose one of two areas of emphasis and further select a focus within that emphasis. Emphases are:

- **music performance**, which helps students prepare for professional careers in music performance.

- **music education**, which helps students prepare for careers in teaching instrumental, general and/or choral music at the elementary, middle school, and/or secondary school level.

All music students are required to take a sequence of music theory, history and literature courses to achieve a comprehensive intellectual understanding of music, along with skills relating to performance. Students are expected to develop a high level of skill in ear-training and sight-singing. The music program emphasizes quality in vocal and instrumental music performance with many opportunities for solo and group performance on campus and in the larger community.

Students who major in music with a music performance emphasis must also choose an interdisciplinary minor. While a number of interdisciplinary minors exist, the minor in Communication and the Arts is recommended because it helps students to integrate music with the aesthetics, history and social context of all the fine arts.

Students who major in music with an emphasis in music education normally choose education as their interdisciplinary minor since that program leads to preparation for teaching licensure in the selected areas. Students may combine emphases in music performance and music education.

Some students who want to combine an interest in music with career possibilities in business have chosen to minor in Business Administration.

It is possible to choose music as a disciplinary minor and couple it with an interdisciplinary major. This program is for students who see music as an avocation or who intend to use their musical skills within the community in a nonprofessional context.

Since careers in music performance require an exceptional level of performance skill, it is assumed that students entering the program will show great promise as performers and be capable of further development in their particular area. While there is less emphasis on acquiring a professional level of performance skill for students whose emphasis is music education, it is assumed that those students also will demonstrate substantial performance ability before entering the program. The music education emphasis stresses an aptitude for teaching and achievement of teaching skills. Students entering the program should have a solid mastery of music fundamentals or remedial course work in those areas may be necessary.

The music program offers excellent facilities including a well-equipped listening and computer-assisted ear-training/composition lab. The Coffin Library holds a good collection of music books, periodicals and scores. Work-study opportunities within the program are often available to qualified students.

Four-year sequences of applied instruction are available in piano, organ, guitar, voice, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet/cornet, trombone, euphonium, tuba, percussion, violin, viola, cello and string bass. Group ensemble performance opportunities include Wind Ensemble, Symphonic Band, Concert Choir, University Chorus, Jazz Ensemble, Show/Jazz Choir, as well as smaller brass, woodwind, and percussion ensembles and music theatre/opera workshop.

## Requirements for the Major

### Lower-Level Courses, 32-37 credits

#### Category 1, 27 credits:

- 242-121 Masters and Masterpieces of Music, 3 credits
- 670-115, 116 Ear Training and Sight Singing I, II, 2 credits
- 670-151, 152 Materials and Values in Music I, II, 6 credits
- 670-251, 252 Literature and Styles in Music I, II, 8 credits
- 672-100, 200 Applied Lessons, 2 credits each, 8 credits (4 semesters)

#### Category 2, 1-4 credits:

- 672-011-042 Keyboard Musicianship I-IV, 1-4 credits  
(1-4 semesters at 1 credit each, depending upon placement.)  
Students placed in 011 also take 021, 031, and 041. Students placed in 012 also take 022, 032, 042. Students placed in 013 take only that course.

#### Category 3, 4-6 credits:

- 672-Major Performing Ensembles  
Concurrent enrollment is required when studying at the 100- or 200-level of applied lessons. The major ensemble chosen must be related to the area of applied lessons when possible.  
Major Ensembles, 4 credits (4 semesters required)  
672-241 Symphonic Band, 1 credit  
672-241 Wind Ensemble, 1 credit  
672-261 Concert Choir, 1 credit  
672-262 University Chorus, 1 credit

A variety of minor ensembles are offered each year in voice, woodwinds, brass, percussion, jazz, and contemporary music. Although not required at the lower level, these minor ensembles are recommended.

### Upper-Level Courses, 13-14 credits

#### Required for all emphases:

- 670-333 Basic Conducting, 2 credits
- 670-351, 352 Literature and Styles in Music III, IV, 8 credits
- 672-Major Performing Ensembles

Concurrent enrollment in a major ensemble is required when studying at the 300-level of applied lessons. The ensemble chosen must be directly related to the area of applied lessons when possible.

- Major Ensembles, 2 credits (2 semesters required)  
672-441 Symphonic Band, 1 credit  
672-441 Wind Ensemble, 1 credit  
672-461 Concert Choir, 1 credit  
672-462 University Chorus, 1 credit

- Minor Ensembles, 2 credits (2 semesters required)  
672-343 Jazz Ensembles, 1 credit  
672-344 Woodwind Ensembles, 1 credit  
672-345 Brass Ensemble, 1 credit  
672-346 Percussion Ensembles, 1 credit  
672-350 New Music Ensemble, 1 credit  
672-363 Vocal Ensemble, 1 credit  
672-364 University Singers Show Choir, 1 credit  
672-483 Opera Workshop, 3 credits

### Areas of Emphasis

Each area of emphasis has different upper-level course requirements. Students seeking the music major must complete requirements in one of the following areas of emphasis.

#### ■ Music Performance

##### Upper-Level Courses, 31-36 credits

- 242-329 Cross-Cultural Communication II: Jazz History, 3 credits  
 242-329 Cross-Cultural Communication II: Introduction to World Music, 3 credits  
 670-225, 226 Diction for Singers I, II, 4 credits (vocal performance only)  
 670-315 Choral Arranging, 2 credits  
 OR  
 670-316 Instrumental Arranging, 3 credits  
 670-423 Seminar in Music Literature, 3 credits  
 672-300 Applied Lessons, including a half recital, 6 credits (2 semesters at 3 credits each)  
 672-400 Applied Lessons, including a full recital, 6 credits (2 semesters at 3 credits each)

##### A minimum of 6 credits from:

- 670-241 Jazz Improvisation, 3 credits  
 670-315 Choral Arranging, 2 credits (if not counted above)  
 670-316 Instrumental Arranging, 3 credits (if not counted above)  
 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  
 OR  
 670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits  
 670-345 Percussion Techniques, 2 credits  
 670-346, 347 Keyboard Accompanying I, II 1, 1 credit  
 670-411 Composition, 3 credits  
 670-423 Seminar in Music Literature, 3 credits (can be repeated once with different topic)

(Also courses in jazz studies, opera workshop, vocal and piano pedagogy, etc.)

#### ■ Music Education: Choral Licensure

##### Upper-level Courses, 16 credits

- 302-317 Teaching Instrumental and Choral Music, 3 credits  
 670-315 Choral Arranging, 2 credits  
 670-318 Choral Literature, 2 credits  
 670-344 Choral Conducting and Rehearsal Techniques, 3 credits  
 670-346, 347 Keyboard Accompanying I, II, 1, 1 credit  
 672-Applied Lessons, including a half recital, 4 credits (2 semesters at 2 credits each)

#### ■ Music Education: Instrumental Licensure

##### Upper-Level Courses, 23 credits

- 302-317 Teaching Instrumental and Choral Music, 3 credits  
 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  
 670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits  
 672-Applied Lessons, including a half recital, 4 credits (2 semesters at 2 credits each)

##### Voice Proficiency:

- 672-045, 046 Elementary Voice I, II, 2 credits

#### ■ Music Education: General Music Licensure

##### Upper-Level Courses, 18-22 credits

- 302-317 Teaching Instrumental and Choral Music, 3 credits  
 302-334 Teaching General Music in the Elementary School, 3 credits  
 670-315 Choral Arranging, 2 credits  
 670-344 Choral Conducting and Rehearsal Techniques, 3 credits  
 OR  
 6570-348 Instrumental Conducting and Rehearsal Techniques, 3 credits  
 670-346 Keyboard Accompanying I, 1 credit  
 672-Applied Lessons, including a half recital, 4 credits (2 semesters at 2 credits each)  
 672-069 Elementary Guitar, 1 credit

##### Voice Proficiency:

- 672-045, 046 Elementary Voice I, II, 0-4 credits (required of all students whose major is not voice)

### Requirements for the Minor

#### Lower-Level Courses, 18-22 credits

These are the same as for the major, excluding:

- 670-251, 252 Literature and Styles in Music I, II, 8 credits  
 672-200 Applied Lessons, 4 credits (2 semesters at 2 credits each)

#### Upper-Level Courses, 6 credits

- 670-333 Basic Conducting, 2 credits

##### One of the following:

- 242-329 Cross-Cultural Communication: Expressive Traditions, 3 credits (Introduction to World Music)  
 242-329 Cross-Cultural Communication: Expressive Traditions, 3 credits (Jazz History or American Show Music)

## Nursing

### Bachelor of Science in Nursing for Registered Nurses

#### Professional Nursing Degree Program

Associate Professors: Lorraine Noll; Eileen Porter (chairperson).

Assistant Professors: Harriet Wichowski; Sylvia Kubsch.

The professional nursing program provides an opportunity for registered nurses holding a diploma or associate degree in nursing to further their nursing education and earn a bachelor of science degree in nursing.

The program is accredited by the Wisconsin State Board of Nursing and by the National League for Nursing (NLN).

Professional nursing program objectives and educational methods are designed to meet the educational needs of adult learners and practicing registered nurses.

Because the program offers courses in the northernmost area of Wisconsin, it provides educational opportunities for registered nurses who have limited access to higher education.

#### Entry Requirements

Eligibility to enter the program includes:

- Graduation from an associate degree or three-year diploma program accredited by a state board of nursing.
- Current registered nurse license.

—Prior lower-level nursing course work (28 credits)

(Credits are granted through direct credit transfer from NLN accredited ADN programs in community colleges and in Wisconsin Technical Colleges with VTAE articulation contracts.

OR

through successful completion of the NLN Profile II test and clinical skills assessed in Health Assessment of the Adult, 689-315.)

### Requirements for the Major

(Candidates for the B.S.N. complete 30-36 credits of general-education credits in addition to requirements for the major and electives, to total the required 124 credits.)

#### Supporting Courses, 12 credits

- Speech, 3 credits
- Statistics, 3 credits
- Computer technology, 3 credits
- Environmental science, 3 credits

#### Upper-Level Courses, 30 credits

- 689-311 Theoretical Foundations in Nursing, 3 credits
- 689-315 Health Assessment of the Adult, 3 credits
- 689-325 Nursing Diagnostics and Therapeutics, 4 credits
- 689-415 Gerontological Nursing, 4 credits
- 689-431 Nursing Management, 3 credits
- 689-435 Nursing Research, 3 credits
- 689-441 Community Health Nursing, 6 credits
- 689-451 Advanced Nursing Concepts, 4 credits

## Nutritional Sciences

### Interdisciplinary Major or Minor

Associate Professors: Dawson C. Deese; Dorothea B. Sager (chairperson).

Assistant Professors: Vijay Ganji; Warren V. Johnson; Andrea Wang.

Nutritional Sciences is an interdisciplinary program concerned with the study of human nutritional requirements during the life-span; the utilization of nutrients in health and disease; and the factors that affect the quality, quantity and availability of food. Nutrition students examine aspects of human nutritional needs; nutrient functions; food quality, preservation, and preparation; and food service.

Nutritional Sciences majors choose one of three areas of emphasis. They are:

- Human Nutrition/Dietetics
- Human Nutrition
- Food Science

The **human nutrition/dietetics** emphasis prepares students to become Registered Dietitians (RD) for employment as nutritionists and nutritionist supervisors in hospitals and other health care agencies at local, state, and national levels. The program of study is approved by the American Dietetics Association and must be followed by students who wish to become registered dietitians. Upon completion, the student receives a B.S. degree from UWGB, and, after fulfilling a clinical internship or AP4 program, is eligible to take the registration examination leading to the RD credential.

The **human nutrition** emphasis provides appropriate preparation for employment as a nutritionist or non-registered dietitian in hospitals and other health care agencies. Students also are prepared for employment in food service operations as nutritionist consultants and as entry-level food service supervisors in hospitals, nursing homes, and commercial food services.

The **food science** emphasis deals with fundamentals of food chemistry, including composition and analysis; food resources, utilization, and distribution; and food safety. It prepares students to work as technicians or scientists in areas of food processing or research. Students who are especially interested in laboratory-based careers are encouraged to combine a major in chemistry with a major in this emphasis of Nutritional Sciences.

Nutritional Sciences majors can also plan their programs so they are prepared for entrance into graduate programs or professional programs such as medicine, dentistry or pharmacy. For those interested in working in management in food-related enterprises, a major in Nutritional Sciences along with a minor in Business Administration is a worthwhile combination.

The Nutritional Sciences minor is taken in conjunction with a disciplinary major. The minor provides an overview of the field of Nutritional Sciences and can serve to provide an interdisciplinary perspective to a disciplinary major or to prepare for a particular career.

### Requirements for the Major

Each area of emphasis has specific supporting course requirements.

#### ■ Human Nutrition/Dietetics Emphasis

In order to become a registered dietitian, the American Dietetic Association requires certain academic competencies. Required courses listed for this emphasis are necessary to meet A.D.A. competencies.

#### Supporting Courses, 45 credits

- 204-202 Principles of Biology I, 4 credits
- 225-108 General Chemistry, 5 credits
- OR
- 225-211, 212 Principles of Chemistry I, II, 10 credits



- 225-300, 301 Bio-Organic Chemistry and Laboratory, 4 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 (or a course in counseling)  
**766-155 Microcomputers and End-User Applications, 3 credits**  
 298-202 Macro Economic Analysis, 3 credits  
 478-204 Anatomy and Physiology, 5 credits  
 552-105 Expository Writing, 3 credits  
 600-260 Introductory Statistics, 4 credits  
 694-201 Dietetics and Related Professions, 1 credit  
 694-212 Nature of Food, 4 credits  
 820-102 Introduction to Psychology, 3 credits  
 900-202 Introduction to Sociology, 3 credits  
 (or a course in anthropology)

**Upper-Level Courses, 39 credits****Required:**

- 204-302 Principles of Microbiology, 4 credits  
 216-362 Human Resource Management, 3 credits  
 216-382 Introductory Management, 3 credits  
 225-330 Biochemistry, 3 credits  
 OR  
 694-328 Physiological Chemistry, 3 credits  
 225-331 Biochemistry Laboratory, 1 credit  
 302-322 Educational Psychology, 3 credits  
 478-310 Human Genetics, 3 credits  
 478-350 Principles of Exercise Physiology, 4 credits  
 OR  
 478-402 Human Physiology, 3 credits  
 694-300 Human Nutrition, 3 credits  
 694-304 Nutrition Education, 2 credits  
 694-312 Quantity Food Production and Service, 4 credits  
 694-421 Community Nutrition, 3 credits  
 694-488 Nutrition in Disease, 3 credits

**Recommended:**

- 694-302 Nutrition and Culture, 3 credits  
 694-350 Life Cycle Nutrition, 3 credits  
 694-485 Advanced Human Nutrition, 3 credits

**■ Human Nutrition Emphasis****Supporting Courses, 35 credits**

- 204-202 Principles of Biology I, 4 credits  
 225-108 General Chemistry, 5 credits  
 OR  
 225-211, 212 Principles of Chemistry I, II, 10 credits  
 225-300, 301 Bio-Organic Chemistry and Laboratory, 4 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 478-204 Anatomy and Physiology, 5 credits  
 552-105 Expository Writing, 3 credits  
 600-260 Introductory Statistics, 4 credits  
 694-212 Nature of Food, 4 credits  
 820-102 Introduction to Psychology, 3 credits

**Upper-Level Courses, 36 credits****Required:**

- 204-302 Principles of Microbiology, 4 credits  
 216-362 Human Resource Management, 3 credits  
 216-382 Introductory Management, 3 credits  
 225-330 Biochemistry, 3 credits  
 OR  
 694-328 Physiological Chemistry, 3 credits  
 225-331 Biochemistry Laboratory, 1 credit  
 478-350 Principles of Exercise Physiology, 4 credits  
 OR  
 478-402 Human Physiology, 3 credits

- 694-300 Human Nutrition, 3 credits  
 694-302 Nutrition and Culture, 3 credits  
 694-350 Life Cycle Nutrition, 3 credits  
 694-421 Community Nutrition, 3 credits  
 694-485 Advanced Human Nutrition, 3 credits

**Recommended:**

- 478-310 Human Genetics, 3 credits  
 694-304 Nutrition Education, 2 credits  
 694-497 Internship, 2-4 credits  
 (up to 3 credits may apply to the major)

**■ Food Science Emphasis****Supporting Courses, 42 credits**

- 204-202, 203 Principles of Biology I, II, 8 credits  
 225-211, 212 Principles of Chemistry I, II, 10 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 552-105 Expository Writing, 3 credits  
 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits  
 600-260 Introductory Statistics, 4 credits  
 754-103, 104 Fundamentals of Physics I, II, 10 credits

**Upper-Level Courses, 34 credits****Required:**

- 204-302 Principles of Microbiology, 4 credits  
 225-302, 303 Organic Chemistry I, II, 6 credits  
 225-304, 305 Organic Chemistry Laboratory I, II, 2 credits  
 225-311 Analytical Chemistry, 4 credits  
 225-330 Biochemistry, 3 credits  
 OR  
 694-328 Physiological Chemistry, 3 credits  
 225-331 Biochemistry Laboratory, 1 credit  
 694-300 Human Nutrition, 3 credits  
 694-302 Nutrition and Culture, 3 credits  
 694-350 Life Cycle Nutrition, 3 credits  
 694-404 Food Science, 3 credits  
 694-409 Analysis of Food and Food Products, 2 credits

**Recommended:**

- 204-303 Genetics, 3 credits  
 204-304 Genetics Laboratory, 1 credit  
 478-402 Human Physiology, 3 credits  
 694-485 Advanced Human Nutrition, 3 credits  
 694-488 Nutrition in Disease, 3 credits

**Requirements for the Minor****Supporting Courses, 13-18 credits**

- 204-202 Principles of Biology I, 4 credits  
 225-108 General Chemistry, 5 credits  
 OR  
 225-211, 212 Principles of Chemistry I, II, 10 credits  
 225-300, 301 Bio-Organic Chemistry and Laboratory, 4 credits  
 OR  
 225-303, 305 Organic Chemistry II and Laboratory, 4 credits

**Upper-Level Courses, 13 credits minimum**

- 204-302 Principles of Microbiology, 4 credits  
 694-300 Human Nutrition, 3 credits  
 694-350 Life Cycle Nutrition, 3 credits  
 694-302 Nutrition and Culture, 3 credits  
 OR  
 694-421 Community Nutrition, 3 credits

# Philosophy

## Disciplinary Major or Minor

**Professors:** Fredrick Kersten.

**Associate Professors:** Orville Clark; Gary Greif (chairperson); Gilbert Null.

The study of philosophy acquaints students with the major philosophical ideas in the history of Western thought and provides them with the conceptual means for critical reflection on the values and beliefs of their own culture. Philosophy also provides students with a forum for the exchange of ideas and with alternative methods of research and problem-solving techniques.

Courses of study in philosophy include logic, ethics, metaphysics, aesthetics, social and political philosophy, and history of philosophy. Course work in philosophy addresses the basic concerns of humankind with the natural and social worlds, as well as those of the humanities, fine arts, and sciences.

Philosophy majors must choose interdisciplinary minors. Students interested in broad issues of literature and history might logically choose minors in humanistic studies. Those who want to explore issues in the arts and aesthetics would find communication and the arts appropriate. Students seeking application to current and historical political and social theories might select social change and development. Environmental science would be the choice of students interested in the natural sciences. An adviser can help in choosing appropriate minors.

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.

UWGB 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, 6 credits:**

- 736-213 Ancient Philosophy, 3 credits
- 736-214 Modern Philosophy, 3 credits

**Choose 3 credits from:**

- 736-101 Introduction to Philosophy, 3 credits
- 736-102 Problems in Ethics, 3 credits
- 736-104 Freedom and Individuality, 3 credits
- 736-105 Introduction to Social and Political Philosophy, 3 credits
- 736-106 Pacifism and Violence, 3 credits
- 736-111 Elementary Logic, 3 credits
- 736-207 Philosophy and Literature, 3 credits
- 736-208 Science and Human Values, 3 credits
- 736-209 Reason and Passion: Philosophical Issues in Film, 3 credits
- 736-210 Civilization and Culture, 3 credits
- 736-211 The Arts and Human Existence, 3 credits
- 736-212 Philosophy of Science, 3 credits

### Upper-Level Courses, 18 credits

**Choose from:**

- 736-301 Criticism of Values, 3 credits
- 736-304 American Philosophy, 3 credits
- 736-322 Aesthetics, 3 credits
- 736-324 Contemporary Philosophy, 3 credits
- 736-325 Marxist Humanism, 3 credits
- 736-326 Philosophy, Politics and Law, 3 credits
- 736-403 Major Philosophical Figures and Issues, 3 credits
- 736-406 Philosophical Problems in the Sciences, 3 credits

## Requirements for the Minor

### Supporting Courses, 9 credits

**Required:**

- 736-213 Ancient Philosophy, 3 credits
- 736-214 Modern Philosophy, 3 credits

**Choose 3 credits from:**

- 736-101 Introduction to Philosophy, 3 credits
- 736-102 Problems in Ethics, 3 credits
- 736-104 Freedom and Individuality, 3 credits
- 736-105 Introduction to Social and Political Philosophy, 3 credits
- 736-106 Pacifism and Violence, 3 credits
- 736-111 Elementary Logic, 3 credits
- 736-207 Philosophy and Literature, 3 credits
- 736-208 Science and Human Values, 3 credits
- 736-209 Reason and Passion: Philosophical Issues in Film, 3 credits
- 736-210 Civilization and Culture, 3 credits
- 736-211 The Arts and Human Existence, 3 credits
- 736-212 Philosophy of Science, 3 credits

### Upper-Level Courses, 12 credits

**Choose from:**

- 736-301 Criticism of Values, 3 credits
- 736-304 American Philosophy, 3 credits
- 736-322 Aesthetics, 3 credits
- 736-324 Contemporary Philosophy, 3 credits
- 736-325 Marxist Humanism, 3 credits
- 736-326 Philosophy, Politics and Law, 3 credits
- 736-403 Major Philosophical Figures and Issues, 3 credits
- 736-406 Philosophical Problems in the Sciences, 3 credits

# Physical Education

## Including Coaching Certification

Acting chairperson: Dan Spielmann.

Lecturers, basic instruction program: Otis Chambers, Cecily Dawson, Mike Heideman, Holly Huso, Mike Kline, Jim Merner, Janis Pum, Aldo Santaga.

Lecturers, certification program: Otis Chambers, Mike Heideman, Mike Kline, Terry Powers.

While the physical education unit does not offer a major or minor, a student may take up to four credits of physical education courses numbered from 100 to 499 for elective credit toward a B.A. or B.S. degree. In addition, any number of approved physical education courses and credits may be counted as degree credits if those courses are listed on a student's academic plan as a requirement for: 1) an interdisciplinary major; 2) a disciplinary major; 3) a professional program; or, 4) a part of the supporting subject or background requirements—but only if the related program is completed before graduation.

Credits in physical education courses taken in addition to the above do not count toward graduation. Consult the *Timetable* for further regulations about physical education credits.

Enrollment in physical education activity presumes a student's health status is appropriate for the course selected. A physical examination and the filing of a health history form with the office of Student Health Services are recommended.

### Coaching Certification

The coaching certification program consists of a minimum of 16 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 course work early to assure normal matriculation.

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.

UWGB'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, 16 credits

- 478-102 Introduction to Human Biology, 3 credits  
 742-401 Theory and Philosophy of Coaching, 2 credits  
 OR  
 742-402 Psychology and Sociology of Sports, 2 credits  
 742-403 Organization and Administration of Interscholastic 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, 2 credits  
 (prerequisite 478-102 or equivalent)

- 742-410-434 Principles of Coaching, 2 credits  
 Select from: 410 Baseball/Softball  
 411 Basketball  
 412 Bowling  
 413 Crew  
 414 Curling  
 415 Fencing  
 416 Field Hockey  
 417 Football  
 418 Golf  
 419 Gymnastics  
 420 Handball Team  
 421 Ice Hockey  
 422 Lacrosse  
 424 Skiing  
 425 Soccer  
 426 Swimming and Diving  
 427 Tennis  
 428 Track and Field  
 429 Volleyball  
 430 Wrestling  
 431 Cheerleading  
 433 Pom-Pon Team  
 434 Drill Team

- 742-435-459 Field Experience in Coaching, 2 credits  
 Select from: 435 Baseball/Softball  
 436 Basketball  
 437 Bowling  
 438 Crew  
 439 Curling  
 440 Fencing  
 441 Field Hockey  
 442 Football  
 443 Golf  
 444 Gymnastics  
 445 Handball Team  
 446 Ice Hockey  
 447 Lacrosse  
 449 Skiing  
 450 Soccer  
 451 Swimming and Diving  
 452 Tennis  
 453 Track and Field  
 454 Volleyball  
 455 Wrestling  
 456 Cheerleading  
 458 Pom-Pon Team  
 459 Drill Team

### Electives, 1 credit minimum

#### Coaching Electives (1 credit minimum)

- 742-401 Philosophy of Athletics and Coaching, 2 credits  
 742-116 First Aid and Emergency Care Procedures, 2 credits  
 742-117 Cardiopulmonary Resuscitation, 1 credit  
 742-179-184 Athletic Officiating, 1 credit  
 Select from: 179 Baseball/Softball  
 171 Basketball  
 172 Field Hockey  
 173 Football  
 174 Gymnastics  
 175 Ice Hockey  
 176 Lacrosse  
 178 Soccer  
 181 Swimming and Diving  
 182 Track and Field  
 183 Volleyball  
 184 Cheerleading

# Physics

## Disciplinary Major or Minor

**Professors:** Fritz A. Fischbach; Anjani K. Mehra (chairperson); George T. O'Hearn; Charles R. Rhyner; Nancy J. Sell.

**Associate Professor:** Robert W. Lanz.

Physics is the study of matter and energy and their interactions in the areas of mechanics, heat, acoustics, optics, electricity, magnetism, radiation, and atomic and nuclear phenomena. Physics provides students with concepts and models for describing, understanding, and predicting many phenomena of the natural environment. It provides the foundation for other physical sciences such as chemistry, astronomy, and geology and for many engineering fields.

Graduates typically pursue graduate work in physics, meteorology, or other related fields, enter careers in *industry*, or obtain licensure to teach physics in secondary schools.

Students majoring in physics must select an interdisciplinary minor. Environmental sciences, information and computing science, and human biology are particularly appropriate choices, depending on students' individual interests and career goals.

In addition to classrooms and laboratories, facilities at UW-Green Bay include laboratories designed for faculty-student research projects. Students have access to microcomputers and to mainframe computers. Major equipment available for classes and independent study include electronic test equipment, X-ray and laser diffraction units, multichannel analyzer, liquid scintillation counter, neutron source, storage oscilloscope, noise and vibration meters, microwave units, and infrared, ultra-violet and visible spectrophotometers.

Physics majors are encouraged to include mathematics courses beyond those listed as supporting courses in their programs of study.

## Requirements for the Major

### Supporting Courses, 28 credits

- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 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
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits

### Upper-Level Courses, 24 credits

At least 3 upper-level laboratory credits are required.

- 754-315 Classical Mechanics, 3 credits
- 754-317 Optics, 3 credits
- 754-321 Structure of Matter, 3 credits
- 754-323 Structure of Matter Laboratory, 1 credit
- 754-404 Electricity and Magnetism, 3 credits
- 754-417 Nuclear Physics and Radiochemistry, 3 credits

A minimum of 8 credits from:

- 754-318 Optics Laboratory, 1 credit
- 754-320 Thermodynamics and Kinetics, 3 credits
- 754-322 Thermodynamics and Kinetics Laboratory, 1 credit
- 754-405 Electronics for Scientists, 3 credits
- 754-415 Solar and Alternative Energy Systems, 3 credits
- 754-418 Nuclear Physics and Radiochemistry Laboratory, 1 credit
- 754-455 Microprocessors and Digital Electronics, 3 credits

## 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

A minimum of 9 credits from:

- 754-315 Classical Mechanics, 3 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
- 754-404 Electricity and Magnetism, 3 credits
- 754-405 Electronics for Scientists, 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:** Martin H. Greenburg; Michael E. Kraft (chairperson); E. Nelson Swinerton.

**Associate Professors:** David M. Littig.

**Assistant Professors:** Francis J. Carleton; Hugh T. Miller; Denise Lynn Scheberle.

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 perspectives on politics and government through history and their 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 advisers 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 studies, environmental policy and planning, regional analysis, social change and development, and business administration.

## Requirements for the Major

### Supporting Courses, 6 credits

Choose from:

- 778-100 Introduction to Political Science, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-215 Understanding Presidential Elections, 3 credits
- 778-218 Political Behavior, 3 credits
- 950-215 Introduction to Public Administration, 3 credits

**Students intending to pursue graduate study are encouraged to take:**

- 255-205 Social Science Statistics, 4 credits
- 255-301 Foundations for Social Research, 3 credits

### Upper-Level Courses, 24 credits

**Minimum of 3 credits from:**

- 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
- 778-316 American Legislative Process, 3 credits
- 778-320 Constitutional Law, 3 credits
- 778-330 Law and the Judicial Process, 3 credits
- 778-408 Public Policy Analysis, 3 credits
- 778-410 Intergovernmental Relations, 3 credits
- 950-344 Leadership in Organizations, 3 credits
- 950-351 Transportation and the City, 3 credits
- 950-376 Administrative Law, 3 credits
- 950-378 Environmental Law, 3 credits
- 950-406 State and Local Government, 3 credits

**Minimum of 3 credits from:**

- 448-352 History of Modern China, 3 credits
- 448-354 History of Modern Southeast Asia, 3 credits
- 778-351 Comparative Political Systems, 3 credits
- 778-353 Politics of Developing Systems, 3 credits
- 778-378 Geography of Conflict Areas, 3 credits  
(This course can only count in one group.)

**Minimum of 3 credits from:**

- 736-326 Philosophy, Politics and Law, 3 credits
- 736-403 Major Philosophical Figures and Issues, 3 credits
- 778-340 Political Theory, 3 credits

**Minimum of 3 credits from:**

- 778-360 International Politics, 3 credits
- 778-368 Geopolitics of World Regions, 3 credits
- 778-370 Foreign and Defense Policies, 3 credits
- 778-378 Geography of Conflict Areas, 3 credits  
(This course can only count in one group.)

## Requirements for the Minor

### Supporting Courses, 6 credits

Choose from:

- 778-100 Introduction to Political Science, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-215 Understanding Presidential Elections, 3 credits
- 778-218 Political Behavior, 3 credits
- 950-215 Introduction to Public Administration, 3 credits

### Upper-Level Courses, 12 credits

Choose courses with the 778 prefix from the lists shown under major requirements.

# Psychology

## Disciplinary Major or Minor

**Professors:** Fergus Hughes; Nicholas Pollis; William Smith.

**Associate Professors:** Charles Matter (chairperson); Robert Mendelsohn; Illene Noppe; Lloyd Noppe; Dean Rodeheaver.

**Assistant Professors:** Dennis Lorenz; Timothy Sewall.

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 content 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. Support for advanced student research recently has been improved by the addition of four computers to the human psychology laboratory and of a diversity of sophisticated stimulation and recording equipment to the physiological psychology laboratory. In addition, internships are available for 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 with 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, social change and development, and urban studies.

### Grade Point Average Requirement

Beginning with those who matriculate in fall 1992, students will be admitted to the psychology major only after completing a minimum of 30 credits of college-level work with a grade point average of at least 2.5 on a 4.0 scale. To remain a psychology major and to graduate with a major, a student must maintain an overall grade point average of at least 2.5. Students who transfer to UWGB with advanced standing should consult with a psychology adviser early in their first semester here.

## Requirements for the Major

### Supporting Courses, 9 credits

- 255-205 Social Science Statistics, 4 credits  
OR  
600-260 Introductory Statistics, 4 credits  
478-102 Introduction to Human Biology, 3 credits  
OR  
478-313 Brain Functions in Human Behavior, 3 credits  
820-102 Introduction to Psychology, 3 credits  
820-202 Introduction to Social Psychology, 3 credits

### Upper-Level Courses, 28 credits

#### Research Methodology:

- 820-300 Experimental Psychology, 4 credits

#### Core Courses

A minimum of 3 credits from each of these 4 groups.

#### General/Experimental Psychology, 3 credits minimum:

- 820-306 Psychology of Perception, 3 credits  
820-308 Physiological Psychology, 3 credits  
820-309 Psychology of Motivation, 3 credits  
820-417 Psychology of Cognitive Processes, 3 credits

#### Social Psychology, 3 credits minimum:

- 820-335 Psychology of Attitude and Public Opinion, 3 credits  
820-337 Social Behavior Dynamics, 3 credits  
820-415 Organizational Psychology, 3 credits  
820-416 Psychology of Intergroup Relations, 3 credits

#### Developmental Psychology, 3 credits minimum:

- 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, 3 credits minimum:

- 820-429 Theories of Personality, 3 credits  
820-435 Abnormal Behavior, 3 credits

#### Additional Courses, 12 credits minimum

(from core courses above or courses below)

- 302-322 Educational Psychology, 3 credits  
481-431 Cognitive Development, 3 credits  
481-436 Counseling with Children and Adolescents, 3 credits  
481-437 Counseling with Adults and the Aged, 3 credits  
820-290 Environmental Psychology, 3 credits  
820-311 Psychology of Sports and Exercise, 3 credits  
820-420 Tests and Measurements, 3 credits  
820-425 Advanced Physiological Psychology, 3 credits  
820-430 History and Systems of Psychology, 3 credits  
820-438 Group Dynamics, 3 credits  
820-450 Health Psychology, 3 credits  
820-466 Clinical and Community Psychology, 3 credits  
820-490 Problems in Environmental Psychology, 3 credits  
820-497 Internship, 3-12 credits  
950-325 Behavior in Designed Environments, 3 credits

## Requirements for the Minor

### Supporting Courses, 7 credits

- 255-205 Social Science Statistics, 4 credits  
OR  
600-260 Introductory Statistics, 4 credits  
820-102 Introduction to Psychology, 3 credits

### Upper-Level Courses, 15 credits

Three credits in each of the 4 groups of courses listed under the upper-level requirements for the major.

# Public Administration

## Interdisciplinary Major or Minor

**Professors:** Michael E. Kraft (chairperson); Nicholas Pollis; E. Nelson Swinerton; John R. Stoll.

**Associate Professors:** Ronald Baba; Ray Hutchison; David M. Littig; Robert Mendelsohn.

**Assistant Professors:** Hugh Miller; Denise Scheberle.

The Public Administration major is a broad-based social sciences major. It is designed to prepare public policy analysts and public administration professionals who can effectively identify and analyze problems, develop and evaluate policies, and manage and lead organizations.

Studies in public administration prepare students for a variety of careers in public and nonprofit organizations and for further study in a wide range of graduate programs. Graduates hold positions such as administrative and policy analysts, budget specialists, program managers, personnel counselors, and others in local, state, and federal governments and in nonprofit organizations. Many students pursue graduate studies in fields such as law, political science, social services, and public policy and public affairs.

All Public Administration majors engage in both theoretical and applied studies, and every student gains experience through independent studies, internships, or applied research projects.

Majors choose one of three possible areas of emphasis. Emphases are:

- public and nonprofit management
- public policy
- health and human services

A minor in Public Administration may be a good choice to supplement majors such as political science, economics, Urban Studies, Social Change and Development, and Regional Analysis. It serves to prepare students for careers involving management of public and nonprofit organizations or for work in the area of public policy. It provides useful preparation for graduate study in public administration, public affairs, public policy, law, and related fields.

## Requirements for the Major

Public Administration majors are recommended to have equivalent competencies or take these courses:

- 266-155 Microcomputers and End-User Applications, 3 credits  
 298-202 Macro Economic Analysis, 3 credits  
 OR  
 298-203 Micro Economic Analysis, 3 credits  
 778-100 Introduction to Political Science, 3 credits

## Supporting Courses, 19 credits

- 255-205 Social Science Statistics, 4 credits  
 OR  
 600-260 Introductory Statistics, 4 credits  
 255-301 Foundations for Social Research, 3 credits  
 778-101 American Government and Politics, 3 credits  
 950-201 Problem Analysis and Decision Making, 3 credits  
 950-202 Introduction to Public Policy, 3 credits  
 950-215 Introduction to Public Administration, 3 credits

## Upper-Level Courses, 3 credits

**Internship/Laboratory courses, 3 credits required:**

- 950-461 Urban and Public Affairs Laboratory, 3 credits  
 950-497 Internship, 3 credits

(In unusual circumstances, an independent study course may be substituted for one of the above.)

**Capstone course, 3 credits:**

- 950-430 Seminar in Ethics and Public Affairs, 3 credits

## Areas of Emphasis, 18 credits

### ■ Public and Nonprofit Management Emphasis

- 950-315 Public and Nonprofit Management, 3 credits  
 950-408 Public Policy Analysis, 3 credits  
 950-415 Public and Nonprofit Budgeting, 3 credits  
 OR  
 950-409 Public Finance and Fiscal Policy, 3 credits  
 950-451 Decision Theory and Methods, 3 credits  
 OR  
 950-452 Planning Theory and Methods, 3 credits

**One of these:**

- 216-362 Human Resource Management, 3 credits  
 820-415 Organizational Psychology, 3 credits  
 950-344 Leadership in Organizations, 3 credits

**One of these:**

- 778-410 Intergovernmental Relations, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-309 Urban and Regional Economic Theory, 3 credits  
 950-376 Administrative Law, 3 credits  
 950-406 State and Local Government, 3 credits  
 950-412 Urban Planning, 3 credits

### ■ Public Policy Emphasis

- 950-408 Public Policy Analysis, 3 credits  
 950-415 Public and Nonprofit Budgeting, 3 credits  
 OR  
 950-409 Public Finance and Fiscal Policy, 3 credits  
 950-451 Decision Theory and Methods, 3 credits  
 OR  
 950-452 Planning Theory and Methods, 3 credits

**One of these:**

- 778-316 American Legislative Process, 3 credits  
 778-410 Intergovernmental Relations, 3 credits  
 950-315 Public and Nonprofit Management, 3 credits  
 950-376 Administrative Law, 3 credits  
 950-406 State and Local Government, 3 credits

**Two of these:**

- 778-320 Constitutional Law, 3 credits  
 778-370 Foreign and Defense Policies, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-330 Environmental Politics and Policy, 3 credits  
 950-331 Urban Politics and Policy, 3 credits  
 950-351 Transportation and the City, 3 credits  
 950-378 Environmental Law, 3 credits  
 950-420 Health Care Policy and Administration, 3 credits

### ■ Health and Human Services Emphasis

Several additional lower-level courses are recommended for majors in this emphasis:

- 478-102 Introduction to Human Biology, 3 credits  
 478-217 Man, Nature, and Disease, 3 credits  
 OR  
 478-205 Biotechnology and Human Values, 3 credits  
 892-202 Introduction to Social Services, 3 credits  
 OR  
 892-275 American Social Welfare, 3 credits

**Upper-Level Requirements:**

Because different types of skills and knowledge are needed for health care policy and administration and human services administration, students should work with an adviser to choose an array of courses to meet their specific needs.

- 950-315 Public and Nonprofit Management, 3 credits  
 950-415 Public and Nonprofit Budgeting, 3 credits  
 950-420 Health Care Policy and Administration, 3 credits

**One of these:**

- 892-430 Social Policy Analysis, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-408 Public Policy Analysis, 3 credits  
 950-451 Decision Theory and Methods, 3 credits  
 950-452 Planning Theory and Methods, 3 credits

**One of these:**

- 216-362 Human Resource Management, 3 credits  
 820-415 Organizational Psychology, 3 credits  
 820-466 Clinical and Community Psychology, 3 credits  
 950-344 Leadership in Organizations, 3 credits

**One of these is recommended:**

- 107-316 Governmental and Institutional Accounting, 3 credits  
 216-429 Marketing Strategies for Non-Business Institutions, 3 credits  
 298-301 Economic and Social Security, 3 credits  
 950-409 Public Finance and Fiscal Policy, 3 credits

**Requirements for the Minor****Supporting Courses, 12 credits****Required:**

- 298-202 Macro Economic Analysis, 3 credits  
 OR  
 298-203 Micro Economic Analysis, 3 credits  
 778-101 American Government and Politics, 3 credits

**Select two:**

- 950-201 Problem Analysis and Decision Making, 3 credits  
 950-202 Introduction to Public Policy, 3 credits  
 950-215 Introduction to Public Administration, 3 credits

**Upper-Level Courses, 12 credits minimum****Choose from:**

- 778-316 American Legislative Process, 3 credits  
 778-370 Foreign and Defense Policies, 3 credits  
 778-410 Intergovernmental Relations, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-315 Public and Nonprofit Management, 3 credits  
 950-330 Environmental Politics and Policy, 3 credits  
 950-331 Urban Politics and Policy, 3 credits  
 950-344 Leadership in Organizations, 3 credits  
 950-351 Transportation and the City, 3 credits  
 950-376 Administrative Law, 3 credits  
 950-378 Environmental Law, 3 credits  
 950-402 Resource Economics Analysis, 3 credits  
 950-406 State and Local Government, 3 credits  
 950-408 Public Policy Analysis, 3 credits  
 950-409 Public Finance and Fiscal Policy, 3 credits  
 950-415 Public and Nonprofit Budgeting, 3 credits  
 950-420 Health Care Policy and Administration, 3 credits  
 950-451 Decision Theory and Methods, 3 credits  
 950-452 Planning Theory and Methods, 3 credits

**Regional Analysis****Interdisciplinary Major or Minor**

**Professors:** Martin Greenberg; William Kuepper; William Laatsch; Ismail Shariff; William Smith.

**Associate Professors:** Kumar Kangayappan (chairperson); William Niedzwiedz.

Studies in regional analysis prepare students to understand the character and utilization of human and natural resources in the context of defined areas of the world. These areas are defined as regions and are described by terms such as Fox River Valley, Midwest, or a county, a state, or country.

At other universities, faculty, students and programs in regional analysis would typically be dispersed among departments of economics, geography, political science, psychology, and regional planning. Students wanting to apply knowledge from these fields to a variety of careers can do so within regional analysis at UW-Green Bay.

Regional analysis prepares students for positions in business, government, universities, community organizations, and industry as researchers and policy analysts. More than half of regional analysis graduates have been hired by business firms. Another sizable portion are administrators or other professionals in planning agencies at all levels of government.

The major also serves as suitable preparation for graduate work in economics, geography, regional science, environmental studies, and planning. Ten to 20 percent of graduates continue their studies.

Examples of positions held by graduates include university extension work, neighborhood associations, community development corporations, marketing groups, planning agencies, and research organizations.

Regional analysis students may choose an area of emphasis to prepare for specific career fields. Emphases include:

- General program
- Land use and community planning
- Regional economic development
- Transportation planning and management
- Real estate development and planning

Other areas of emphasis are possible in consultation with an adviser.

Each major in regional analysis works out a specific program with a faculty adviser from the unit.

**Requirements for the Major****Supporting Courses, 9 credits****Required:**

- 834/416-102 World Regions and Concepts: A Geographic Analysis, 3 credits

**Two of the following:**

- 255-205 Social Science Statistics, 4 credits  
 OR  
 600-260 Introductory Statistics, 4 credits

- 266-155 Microcomputers and End-User Applications, 3 credits  
 416-250 Displays of Geographic Information, 3 credits

Faculty advisers may recommend and approve other appropriate supporting courses.

**Areas of Emphasis, 27 credits****■ General Program****Upper-Level Courses****Choose from:**

- 834-309 Urban and Regional Economic Theory, 3 credits  
 834-322 Regional Planning, 3 credits



- 834-323 Land Use Controls, 3 credits
- 834-325 Behavior in Designed Environments, 3 credits
- 834-335 Transportation Systems in the United States, 3 credits
- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 834-356 Environmental Impact Analysis, 3 credits
- 834-368 Geopolitics of World Regions, 3 credits
- 834-372 Analysis of the Great Lakes Region of North America, 3 credits
- 834-377 Analysis of Northern Lands, 3 credits
- 834-392 Analysis of South Asia, 3 credits
- 834-421 Techniques and Methods of Regional Planning, 3 credits
- 834-454 Remote Sensing of the Environment, 3 credits
- 834-472 Senior Research Colloquium (required), 3 credits

Some courses from other disciplines can be used for the requirements in some of the areas of emphasis in the regional analysis major.

### ■ Land Use and Community Planning

#### Upper-Level Courses

In consultation with an adviser, select courses from:

- 416-342 Settlement Geography, 3 credits
- 416-351 Elements of Cartography, 3 credits
- 416-353 Air Photo Interpretation, 3 credits
- 834-309 Urban and Regional Economic Theory, 3 credits
- 834-322 Regional Planning, 3 credits
- 834-323 Land Use Controls, 3 credits
- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 834-350 Geographic-Land Information Systems, 3 credits
- 834-356 Environmental Impact Analysis, 3 credits
- 834-372 Analysis of the Great Lakes Region of North America, 3 credits
- 834-421 Techniques and Methods of Planning Analysis, 3 credits
- 834-454 Remote Sensing of the Environment, 3 credits
- 834-472 Senior Research Colloquium (required), 3 credits

### ■ Regional Economic Development

#### Upper-Level Courses

To be selected from:

- 298-404 Economics of Developing Areas, 3 credits
- 298-406 Comparative Economic Systems and Institutions, 3 credits
- 834-309 Urban and Regional Economic Theory, 3 credits
- 834-322 Regional Planning, 3 credits
- 834-335 Transportation Systems in the United States, 3 credits
- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 834-368 Geopolitics of World Regions, 3 credits
- 834-372 Analysis of the Great Lakes Region of North America, 3 credits
- 834-377 Analysis of Northern Lands, 3 credits
- 834-392 Analysis of South Asia, 3 credits
- 834-421 Techniques and Methods of Planning Analysis, 3 credits
- 834-472 Senior Research Colloquium (required), 3 credits

### ■ Transportation Planning and Management

#### Upper-Level Courses

In consultation with an adviser, select from:

- 298-403 International Trade, 3 credits
- 416-371 Geography of the United States and Canada, 3 credits
- 834-309 Urban and Regional Economic Theory, 3 credits
- 834-322 Regional Planning, 3 credits
- 834-335 Transportation Systems in the United States, 3 credits
- 834-372 Analysis of the Great Lakes Region of North America, 3 credits
- 834-421 Techniques and Methods of Regional Planning, 3 credits
- 834-472 Senior Research Colloquium-Transportation Emphasis (required), 3 credits
- 834-498 Independent Study: Transportation, 3 credits
- 950-351 Transportation and the City, 3 credits
- 950-412 Urban Planning, 3 credits

### ■ Real Estate Development and Planning

#### Upper-Level Courses

In consultation with an adviser, select courses from:

- 216-343 Corporation Finance, 3 credits
- 216-344 Real Estate Principles, 3 credits
- 298-308 Business Cycles, 3 credits
- 416-342 Settlement Geography, 3 credits
- 416-353 Air Photo Interpretation, 3 credits
- 834-309 Urban and Regional Economic Theory, 3 credits
- 834-322 Regional Planning, 3 credits
- 834-323 Land Use Controls, 3 credits
- 834-325 Behavior in Designed Environments, 3 credits
- 834-340 Economics of Land Use, 3 credits
- 834-342 Community Economic Development, 3 credits
- 834-350 Geographic-Land Information Systems, 3 credits
- 834-356 Environmental Impact Analysis, 3 credits
- 834-421 Techniques and Methods of Regional Planning, 3 credits
- 834-472 Senior Research Colloquium (required), 3 credits
- 950-313 The City Through Time and Space, 3 credits

Students entering this emphasis are encouraged to consider a minor in business administration.

## Requirements for the Minor

### Supporting Course, 3 credits

- 834/416-102 World Regions and Concepts: A Geographic Analysis, 3 credits

### Upper-Level Courses, 15 credits

A minor program can include any one of the areas of emphasis listed for the major in regional analysis. Students will select the 15 credits in consultation with an adviser in the unit.

# Social Change and Development

## Interdisciplinary Major or Minor

**Professors:** Anthony Galt; Harvey J. Kaye; Craig A. Lockard; Carol Pollis.

**Associate Professors:** Larry Smith; Lynn W. Walter (chairperson).

**Assistant Professors:** Melissa Barlow; L. DeLana Browning; Francis Carleton.

Social change and development provides students with the basic tools needed to understand large scale processes of social change and the impacts these changes have on people. Emphasis is placed on helping students develop a global perspective—one which views societies as interdependent parts of a continually changing world system. Social change and development's distinctive program emphasizes a common core of courses; an approach embracing both the social sciences and the humanities; and close student-teacher contact.

Social change and development is appropriate for individuals interested in graduate work in the social sciences or history; law school; journalism; international business development or relations; and a variety of human services careers related to women's issues, community development, social activism, criminal justice, and others.

Social change and development graduates are working in a wide range of careers. They include business people, political office-holders, journalists, members of a variety of helping professions, and teachers of foreign language, English as a second language, social studies, and primary grades. Some have pursued advanced studies in fields such as history, sociology, philosophy, and law.

Majors select an area of emphasis among:

- **Contemporary social issues** studies socioeconomic change in modern America as background for careers in law, politics, teaching or social activism.
- **Criminal justice** provides preparation for careers in law enforcement and corrections and preparation for law school or graduate studies in related fields.
- **International and development studies** offers a broad background for understanding relationships between nations and preparation for careers in foreign service, international business or other international organizations, and for graduate study.
- **Law and social change** is appropriate for students seeking admittance to law school and those interested in law-related careers.
- **Media and social change** offers a broad background in social sciences, history, and current affairs for students seeking careers in electronic or print journalism.
- **Social studies education** leads to licensure to teach social studies through grade eight.
- **Women's studies** 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 identity are important.

It is possible also to develop personalized emphases in fields like broad field social studies (high school teaching), elementary education, family studies, historical studies, and general social science.

Students seeking the 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 studies, and women's studies.

## Requirements for the Major

### Supporting Courses, 12 credits required

Choose 6 credits from category 1, and 6 credits from 2, 3, 4, 5, or 6:

#### Category 1:

156-100 Varieties of World Culture, 3 credits

OR

900-202 Introduction to Sociology, 3 credits

AND

448-100 History of the Modern World, 3 credits

#### Category 2:

255-205 Social Science Statistics, 4 credits

OR

600-260 Introductory Statistics, 4 credits

AND

255-301 Foundations for Social Research, 3 credits

OR

255-302 Methods of Participant Observation and Interviewing, 3 credits

#### Category 3:

Foreign Language: Two years of a foreign language up through the 202 level. Students with some language skills may receive retroactive credits.

#### Category 4: (for teacher preparation)

302-300 Introduction to Education and Teaching, 3 credits

302-302 Teaching Social Studies in Elementary and Middle Schools, 3 credits

#### Category 5: (for journalism students)

246-303 Feature Writing, 3 credits

246-305 Elements of Electronic Media, 3 credits

255-302 Methods of Participant Observation and Interviewing, 3 credits

#### Category 6:

Other supporting courses appropriate to individual area of emphasis

### Upper-Level Courses, 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 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. Additional supporting courses are required in some areas of emphasis.

#### ■ Individual Emphasis, 12 credits

Designed for students with very specific interests or desire for more general liberal arts education. Requires 12 credits of upper-level work and necessary prerequisites of supporting courses.

#### ■ Contemporary Social Issues Emphasis, 12 credits

##### Recommended Supporting Courses, 6 credits

875-275 The Vietnam War in Historical Perspective, 3 credits

900-203 Minority Groups, 3 credits

##### Upper-Level Courses, 12 credits

242-370 Modern American Culture, 3 credits

875-340 Women, Work and Family, 3 credits

875-461 History, Politics and Social Criticism, 3 credits

900-302 Class, Status and Power, 3 credits

900-303 Race and Ethnic Relations, 3 credits

900-308 Sociology of the Family, 3 credits

950-303 Urban Sociology, 3 credits

■ **Criminal Justice Emphasis, 12 credits**

**Recommended Supporting Courses, 6 credits**

- 875-204 Freedom and Social Control, 3 credits  
875-235 Perspectives on Human Sexuality, 3 credits

**Upper-Level Courses, 12 credits**

- 875-303 Criminal Justice Process, 3 credits  
875-325 Law in Society, 3 credits  
875-330 Law and the Judicial Process, 3 credits  
900-304 Deviant Behavior, 3 credits  
900-404 Criminology, 3 credits

■ **International and Development Studies Emphasis, 12 credits**

**Recommended Supporting Courses, 6-22 credits**

- Foreign language (2 years)  
448-251 Modern Asian Civilization, 3 credits  
875-270 Third World: Development or Despair, 3 credits

**Upper-Level Courses, 12 credits**

- 156-303 Political, Economic and Environmental Anthropology, 3 credits  
298-404 Economics of Developing Areas, 3 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  
448-375 Great Decisions, 3 credits  
778-368 Geopolitics of World Regions, 3 credits  
875-345 Women, Race and Culture, 3 credits

■ **Law and Social Change Emphasis, 12 credits**

**Recommended Supporting Courses**

- 216-206 Law and the Individual, 3 credits  
736-102 Problems in Ethics, 3 credits  
736-111 Elementary Logic, 3 credits

**Upper-Level Courses, 12 credits**

- 448-403 Political and Social History of Modern America, 3 credits  
778-410 Intergovernmental Relations, 3 credits  
875-320 Constitutional Law, 3 credits  
875-325 Law in Society, 3 credits  
875-400 Environmental Law, 3 credits  
900-404 Criminology, 3 credits  
950-376 Administrative Law, 3 credits

■ **Media and Social Change Emphasis, 12 credits**

This emphasis is primarily for students majoring or minoring in communication processes.

**Recommended Supporting Courses, 6 credits**

- 778-101 American Government and Politics, 3 credits  
900-203 Minority Groups, 3 credits

**Upper-Level Courses, 12 credits**

- 448-403 Political and Social History of Modern America, 3 credits  
778-305 Urban Politics and Policy, 3 credits  
875-340 Women, Work and Family, 3 credits  
875-461 History, Politics and Social Criticism, 3 credits  
950-303 Urban Sociology, 3 credits

■ **Social Studies Education Emphasis, 12 credits**

**Recommended Supporting Courses, 6 credits**

- 298-202 Macro Economic Analysis, 3 credits  
416-102 World Regions and Concepts: A Geographic Analysis, 3 credits  
778-101 American Government and Politics, 3 credits

**Upper-Level Courses, 12 credits**

- 298-307 Sources of Contemporary Economic Concepts, 3 credits  
416-378 Geography of Conflict Areas, 3 credits  
448-311 History of Wisconsin, 3 credits  
778-360 International Politics, 3 credits

■ **Women's Studies Emphasis, 12 credits**

**Required Supporting Course**

- 875-241 Women and Changing Values, 3 credits

**Upper-Level Courses, 12 credits**

- 875-340 Women, Work and Family, 3 credits  
875-342 Women, Myth and Identity, 3 credits  
875-345 Women, Race and Culture, 3 credits  
875-348 Women and the Law, 3 credits  
875-375 Women's Strategies for Change, 3 credits  
875-497 Internship, 3-12 credits  
875-498 Independent Study, 1-4 credits

**Requirements for the Minor**

**Supporting Courses, 6 credits required**

These are the same as for the major.

**Upper-Level Courses, 12 credits required**

These are the same as for the major.

# Social Work

## Professional Major

**Associate Professors:** Betty Baer; Ann L. McLean; Keetje J. Ramo (chairperson); Rolfe White.

**Lecturer:** Anne C. Kok.

The major in social work, leading to the Bachelor of Social Work degree, offers a significant opportunity for students who seek careers in the human services. The program prepares students for beginning level professional practice in social work and provides educational preparation applicable to a wide range of positions in the human services.

Beginning in fall 1992, a selected number of majors will have the opportunity to elect a minor in child welfare. The minor, made possible by a Child Welfare Training project funded by the U.S. Department of Health and Human Services, will prepare students for careers in both public and tribal child welfare practice.

Graduates of the UWGB social work program secure positions in programs serving the elderly, children and their families, the developmentally and emotionally impaired, the economically dependent, sufferers of alcoholism and drug abuse, and others. Graduates also are eligible for advanced standing in graduate-level, Master of Social Work programs.

The B.S.W. program is accredited by the Council on Social Work Education, the profession's accrediting body.

### 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. Application materials are available from the Social Work Office. To enter the B.S.W. degree program, the student must first complete 27 credits, including two lower-level supporting courses for the major (listed in Requirements for Major), with an overall cumulative grade point average of 2.5. He or she also must demonstrate interest in working with people.

Prospective social work majors should seek advising early from social work faculty. They also are encouraged to enroll in Introduction to Social Services, a lower-level course designed to acquaint students with career opportunities in the human services.

## Requirements for the Major

### Supporting Courses, 43 credits

#### Required, 36 credits:

- 255-205 Social Science Statistics, 4 credits
- 255-301 Foundations for Social Research, 3 credits
- 298-301 Economic and Social Security, 3 credits
- 478-102 Introduction to Human Biology, 3 credits
- 481-210 Introduction to Human Development, 3 credits
- 481-342 Cross Cultural Human Development, 3 credits
- 552-105 Expository Writing, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-202 Introduction to Public Policy, 3 credits
- 875-360 Models and Social Change, 3 credits
- 892-275 American Social Welfare, 3 credits
- 900-308 Sociology of the Family, 3 credits

One course each from ethnic studies courses and Women's Studies, 6 credits

#### Recommended, 6 credits:

- 246-166 Fundamentals of Interpersonal Communication, 3 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-332 Middle Childhood and Adolescence, 3 credits
- 481-343 Adulthood and Aging, 3 credits
- 820-202 Introduction to Social Psychology, 3 credits
- 892-202 Introduction to Social Services, 3 credits
- 892-257 Introduction to Counseling Skills and Techniques, 3 credits

### Upper-Level Courses, 36 credits

- 892-300 Field Experience in a Social Service Agency, 2 credits
- 892-305 The Social Work Profession, 3 credits
- 892-370 Social Work Methods I, 3 credits
- 892-371 Human Behavior and the Social Environment, 3 credits
- 892-402 Field Practicum I, 5 credits
- 892-403 Field Practicum II, 5 credits
- 892-411 Social Work Methods II, 4 credits
- 892-420 Social Work Methods III, 4 credits
- 892-430 Social Policy Analysis, 3 credits
- 892-460 Program Evaluation, 3 credits

# Sociology

## Disciplinary Major or Minor

**Professors:** Harvey J. Kaye; Carol A. Pollis.

**Associate Professor:** Ray Hutchison (chairperson).

**Assistant Professors:** Melissa Barlow; Joanne Stohs.

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, intimate relations, 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.

Sociology offers excellent preparation for students going on to graduate work in a number of professional programs including social work and urban studies, and for graduate study in sociology and various interdisciplinary programs in the social sciences. The minor in sociology is a useful choice for many students majoring in business, communications, human development, social change and development, and urban affairs.

Students with sociology majors choose many kinds of careers, including those of teacher or professor (with appropriate work in education or graduate work); staff member of local, state, or federal government agencies; or researcher in an organization. They also work in a variety of positions in social and community development programs, health agencies, correctional institutions, and in other profit and nonprofit organizations which hire individuals with a liberal arts degree background.

Sociology majors must choose an interdisciplinary minor. For students pursuing sociological aspects of politics, public administration or urban studies would be appropriate. Students with philosophical or literary interests might consider humanistic studies as a minor. Those interested in social movements or planned change might consider minoring in social change and development. The sociology adviser can help students choose appropriate minors. Students seeking teacher preparation should consult advisers in the education program.

## Requirements for the Major

### Supporting Courses, 6 credits

255-205 Social Science Statistics, 4 credits  
OR

600-260 Introductory Statistics, 4 credits

900-202 Introduction to Sociology, 3 credits

### Upper-Level Courses, 24 credits

255-301 Foundations for Social Research, 3 credits

900-307 Social Theory, 3 credits

#### A minimum of 12 credits from the following sociology courses:

900-302 Class, Status and Power, 3 credits

900-304 Deviant Behavior, 3 credits

900-308 Sociology of the Family, 3 credits

900-311 Collective Behavior and Social Movements, 3 credits

900-375 Sociology of Sexual and Intimate Relations, 3 credits

900-404 Criminology, 3 credits

900-483 Selected Topics, 3 credits

900-498 Independent Study, 1-4 credits

#### A maximum of 6 credits from the following courses or others approved by the chairperson or adviser:

156-304 Family, Kin and Community, 3 credits

481-336 Gender Roles, 3 credits

820-337 Social Behavior Dynamics, 3 credits

875-303 Criminal Justice Process, 3 credits

875-360 Models and Social Change, 3 credits

950-303 Urban Sociology, 3 credits

950-323 Asian Americans, 3 credits

950-324 Hispanic Americans, 3 credits

Students interested in teacher preparation in broad field social studies and/or sociology should contact an adviser in the education office for requirements in addition to those listed here.

## Requirements for the Minor

### Supporting Courses, 6 credits

255-205 Social Science Statistics, 4 credits  
OR

600-260 Introductory Statistics, 4 credits

900-202 Introduction to Sociology, 3 credits

### Upper-Level Courses, 12 credits

255-301 Foundations for Social Research, 3 credits

900-307 Social Theory, 3 credits

AND

An additional 6 credits of upper-level sociology courses

# Spanish

## Disciplinary Major or Minor

**Assistant Professor:** McKenna Brown (adviser).

**Lecturer:** Carlos Vela-Bueno.

The Spanish program provides students with communication skills in both written and spoken Spanish and gives them an understanding of and appreciation for the literatures and cultures of Spain and Latin America. The growing number of Spanish-speaking people in the United States has 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 in which a knowledge of Spanish is useful or essential. 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 a mutually interdependent world.

Because Spanish is offered within a broad program of literature and language at UW-Green Bay, student course work may draw on faculty from English, French, and German, too. In addition to opportunities that the Center for International Education offers for students to study abroad, the Spanish program encourages students to enroll in its January Abroad: Mexico course, which provides four weeks of instruction and travel in the Yucatan. A language laboratory with interactive audio equipment, computers, and international television reception also supports language practice and cultural awareness.

Students majoring 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 personal preferences and career goals, students may find 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 professional program in education and with an interdisciplinary program.

Students who begin Spanish study at UW-Green Bay should enroll in Introduction to Spanish 101. Students with previous Spanish study should select a course appropriate to their level—Spanish 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 Spanish adviser.

### Retroactive or Advanced Placement Credit

Students who have taken Spanish in high school or who have acquired a knowledge of Spanish elsewhere may earn up to 16 additional credits for their previous Spanish study 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 16 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 eight 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 16 retroactive 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 eight retroactive credits for Spanish 101, 102, 201, and 202 in addition to the three credits for Spanish 225.

## Requirements for the Major

### Lower-Level Courses, 7 credits

- 558-202 Intermediate Spanish II, 4 credits (can be earned by retroactive credit)  
558-225 Intermediate Conversation and Composition, 3 credits

### Upper-Level Courses, 24 credits

#### Minimum of 15 credits from:

- 558-325 Advanced Conversation and Composition, 3 credits  
558-329 Representative Spanish and Latin American Authors, 3 credits  
558-438 Major Spanish and Latin American Writers, 3 credits  
558-483 Advanced Spanish Grammar, 3 credits

#### Minimum of 6 credits from:

- 558-358 Latin America Today, 3 credits  
558-359 The Americas Look at Each Other, 3 credits  
558-483 Cultures of Spain, 3 credits

#### Minimum of 6 credits from:

- 448-358 Aspects of Latin American History, 3 credits (with adviser approval)  
558-333 Spanish and Latin American Literary Themes, 3 credits  
558-335 Spanish and Latin American Literary Eras, 3 credits  
558-351 Major Spanish and Latin American Prose Fiction, 3 credits  
558-363 January Abroad: Mexico, 3 credits  
558-483 Spanish and Latin American Cinema, 3 credits  
558-483 Language Issues in Spain and Latin America, 3 credits  
558-483 History of the Spanish Language, 3 credits  
875-333 Social Change in Selected Areas, 3 credits (with adviser approval)

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

## Requirements for the Minor

### Lower-Level Courses, 7 credits

- 558-202 Intermediate Spanish II, 4 credits (can be earned by retroactive credit)  
558-225 Intermediate Conversation and Composition, 3 credits

### Upper-Level Courses, 12 credits

#### Required:

- 558-325 Advanced Conversation and Composition, 3 credits  
558-358 Latin America Today, 3 credits

#### Minimum of 6 credits from:

- 558-351 Major Spanish and Latin American Prose Fiction, 3 credits  
558-359 The Americas Look at Each Other, 3 credits  
558-363 January Abroad: Mexico, 3 credits  
558-438 Major Spanish and Latin American Writers, 3 credits

# Theatre

## Disciplinary Major or Minor

**Professors:** Louis Erdmann; Jack Frisch; Richard Sherrell.

**Associate Professors:** Jeffrey Entwistle (chairperson); Eugenia Erdmann.

**Assistant Professor:** Susan Kline-Heim.

**Lecturers:** Scott Conklin; Carol Hoehn.

Theatre graduates have been successful because this program provides a rigorous artistic/academic environment for the study and production of all forms of theatre. A balanced approach to classical, modern, experimental, and children's theatre allows students to keep in touch with the traditions of the past while looking to the future for new theatre forms.

Theatre faculty members believe that the best way to learn theatre is to create theatre. Students are encouraged to take advantage of the five mainstage productions offered each year and to become active in the student Alternate Theatre organization that creates several productions each year. The theatre program is continually involved with the Kennedy Center's American College Theatre Festival which aims to identify and promote quality in university theatrical production.

Facilities include the 457-seat University Theatre, the smaller, flexible Experimental Theatre space, an acting studio, a dance studio, and scene and costume shops. The new Weidner Center for the Performing Arts will also include the 2,000-seat Cofrin Family Auditorium and Fort Howard Hall as additional theatre program performance spaces, in addition to another dance studio for theatre dance classes. Casting is open and by audition and the theatre program strongly embraces the concept of cross-cultural casting. No previous experience is required in order to be considered for roles or for backstage work.

Theatre majors will choose one of two areas of emphasis:

- performance (acting/directing)
- design/technical theatre

Theatre majors also complete an interdisciplinary minor. Most theatre majors choose the aesthetic awareness track of the communication and the arts interdisciplinary program. This combination provides students with an exceptionally strong undergraduate preparation in theatre.

UWGB theatre graduates typically go on to graduate programs in acting, directing, and in design/technical theatre. Students also find gainful employment in professional theatre by working in resident companies, children's theatre, community theatre, film companies, and summer stock.

## Requirements for the Major

(vary with the area of emphasis)

### Areas of Emphasis

#### ■ Performance

##### Supporting Courses, 6 credits required

- 242-141 Introduction to the Performing Arts: Theatre and Music, 3 credits  
 242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits

##### Lower-Level Courses, 25 credits required

###### Acting core, 12 credits required:

- 915-131 Beginning Acting, 3 credits  
 915-231 Intermediate Acting, 3 credits  
 915-235 Performance Practicum, 3 credits  
 915-233 Voice for the Actor, 3 credits

###### Technical theatre core, 9 credits required:

- 915-221 Theatre Production Techniques I: Stagecraft, 3 credits  
 915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits  
 915-224 Scenography: Introduction to Theatre Design, 3 credits

###### Dance core, 4 credits required:

- 915-128 Beginning Jazz Dance, 2 credits  
 915-137 Beginning Ballet, 2 credits  
 915-141 Movement for Theatre, 2 credits  
 915-145 Beginning Modern Dance, 2 credits

##### Upper-Level Courses, 33 credits required

###### Acting/directing, 15 credits required:

- 915-305 Audition Techniques for the Actor, 3 credits  
 915-331 Advanced Acting, 3 credits  
 915-335 Performance Practicum, 3 credits  
 915-351 Directing I, 3 credits  
 915-352 Directing II, 3 credits

###### History/criticism/literature, 12 credits required:

- 915-309 Theatre History I, 3 credits  
 915-310 Theatre History II, 3 credits  
 915-409 Theatre Criticism, 3 credits

Select one from:

- 552-310 Major English Drama, 3 credits  
 552-350 Major Foreign Drama, 3 credits  
 552-431 Shakespeare, 3-4 credits

###### Design, 6 credits required:

- 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

###### Electives to strengthen upper-level preparation:

- 915-403 Seminar in Theatre Arts I, 3 credits  
 915-404 Seminar in Theatre Arts II, 3 credits  
 915-405 Theatre Management, 3 credits  
 915-498 Independent Study, 1-4 credits

#### ■ Design/Technical Theatre

##### Supporting Courses, 6 credits required

- 242-141 Introduction to the Performing Arts: Theatre and Music, 3 credits  
 242-142 Performing Arts Perspectives: Experience and Evaluation, 3 credits

##### Lower-Level Courses, 25 credits required

###### Design/technical theatre core, 18 credits required:

- 915-220 Stage Management, 3 credits  
 915-221 Theatre Production Techniques I: Stagecraft, 3 credits  
 915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits  
 915-224 Scenography: Introduction to Theatre Design, 3 credits  
 915-235 Performance Practicum, 3 credits

Select one from:

- 168-105 Drawing, 3 credits  
 168-106 Design Methods, 3 credits  
 950-210 Drawing Systems for the Designer, 3 credits

###### Acting core, 3 credits required:

- 915-131 Beginning Acting, 3 credits

###### Dance core, 4 credits required:

- 915-128 Beginning Jazz Dance, 2 credits  
 915-137 Beginning Ballet, 2 credits  
 915-141 Movement for Theatre, 2 credits  
 915-145 Beginning Modern Dance, 2 credits  
 915-340 Dance History, 2 credits

##### Upper-Level Courses, 33 credits required

###### Design/technical theatre, 12 credits required:

- 915-351 Directing I, 3 credits

Select three from:

- 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/criticism/literature, 12 credits required:**

- 915-309 Theatre History I, 3 credits  
 915-310 Theatre History II, 3 credits  
 915-409 Theatre Criticism, 3 credits

## Select one from:

- 552-310 Major English Drama, 3 credits  
 552-350 Major Foreign Drama, 3 credits  
 552-431 Shakespeare, 3-4 credits

**Electives, 9 credits required:**

- 915-335 Performance Practicum, 1-4 credits  
 915-403 Seminar in Theatre Arts I, 3 credits  
 915-404 Seminar in Theatre Arts II, 3 credits  
 915-405 Theatre Management, 3 credits  
 915-423 Advanced Stage Lighting, 3 credits  
 915-424 Advanced Technical Practices, 3 credits  
 915-498 Independent Study, 1-4 credits

Note: Students may take the one upper-level design course not selected above as a three-credit elective.

**Requirements for the Minor****■ Theatre****Lower-Level Courses, 12 credits required**

- 915-131 Beginning Acting, 3 credits  
 915-221 Theatre Production Techniques I: Stagecraft, 3 credits  
 915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits

- 915-235 Performance Practicum, 3 credits  
 OR

- 915-224 Scenography: Introduction to Theatre Design, 3 credits

Note: Design/technical theatre minors must take 915-224 in place of 915-235.

**Upper-Level Courses, 9 credits required****Performance:**

- 915-351 Directing I, 3 credits  
 915-352 Directing II, 3 credits

**History:**

- 915-309 Theatre History I, 3 credits  
 915-310 Theatre History II, 3 credits

**Design/technical theatre:**

- 915-321 Scene Design, 3 credits  
 915-322 Costume Design, 3 credits  
 915-323 Stage Lighting, 3 credits

**■ Dance****Lower-Level Courses, 16 credits required**

- 915-131 Beginning Acting, 3 credits  
 915-137 Beginning Ballet, 2 credits  
 915-138 Continuing Beginning Ballet, 2 credits  
 915-141 Movement for Theatre, 2 credits  
 915-237 Intermediate Ballet, 3 credits

- 915-128 Beginning Jazz Dance, 2 credits  
 OR

- 915-145 Beginning Modern Dance, 2 credits

- 915-228 Intermediate Jazz Dance, 2 credits  
 OR

- 915-245 Intermediate Modern Dance, 2 credits

**Upper-Level Courses, 6 credits required**

- 915-335 Performance Practicum, 2 credits  
 915-340 Dance History, 2 credits  
 915-440 Choreography, 2 credits

**Urban Studies****Interdisciplinary Major or Minor**

**Professors:** Michael E. Kraft (chairperson); Nicholas Pollis; E. Nelson Swinerton; John R. Stoll.

**Associate Professors:** Ronald Baba; Ray Hutchison; David M. Littig; Robert Mendelsohn.

**Assistant Professors:** Hugh Miller; Denise Scheberle.

The Urban Studies program focuses on the problems, possibilities, and promise of life in urban areas. Its interdisciplinary program offers a valuable focus for understanding contemporary culture and the small, medium, and large cities in which most of us will live our lives.

As a liberal arts program, it offers the interdisciplinary background increasingly sought by employers for a variety of urban-based careers. UWGB graduates in Urban Studies are pursuing careers in architecture, planning, policy analysis, social services, education, journalism, marketing, real estate, politics, and community organizations. Many graduates go on to graduate schools in fields such as architecture, planning, administration, law, business, and education.

Urban Studies students combine descriptive and theoretical courses with practical experience in the community. All majors enroll in a set of core courses, supplemented by a selection of electives. Independent studies, internships, and/or applied research projects are a required part of every student's program. Internships, which are especially encouraged, are short-term positions offering students practical experience, and they enhance opportunities for employment after graduation.

Students who want to prepare for further studies in architecture and urban design may use credits from the environmental design studio series (950-436, 437, 438, and 439) toward majors or minors in Urban Studies. Such students should consult the Urban Studies adviser early for help in developing their academic plans.

**Requirements for the Major****Competencies**

Students should have competencies at this level, or take these courses:

- 298-203 Micro Economic Analysis, 3 credits  
 778-100 Introduction to Political Science, 3 credits  
 778-101 American Government and Politics, 3 credits  
 900-202 Introduction to Sociology, 3 credits

**Supporting Courses, 12-13 credits minimum**

- 255-205 Social Science Statistics, 4 credits

AND

- 255-301 Foundations for Social Research, 3 credits

OR

Two years of a single foreign language, 6 credits

OR

Six credits of other approved tool subjects

- 950-200 Introduction to Urban Studies, 3 credits

- 950-202 Introduction to Public Policy, 3 credits

**Upper-Level Courses, 24 credits minimum****Core courses, 9 credits:**

- 950-303 Urban Sociology, 3 credits  
 950-331 Urban Politics and Policy, 3 credits  
 950-412 Urban Planning, 3 credits

**One course from at least three of these four groups:**

**Group 1, The Urban Economy**

- 834-340 Economics of Land Use, 3 credits  
 950-309 Urban and Regional Economic Theory, 3 credits  
 950-409 Public Finance and Fiscal Policy, 3 credits  
 950-415 Public and Nonprofit Budgeting, 3 credits



**Group 2, Urban Politics and Government**

- 778-410 Intergovernmental Relations, 3 credits  
 950-406 State and Local Government, 3 credits  
 950-408 Public Policy Analysis, 3 credits  
 950-452 Planning Theory and Methods, 3 credits

**Group 3, Urban Society**

- 416-341 The City and Its Regional Context, 3 credits  
 900-303 Race and Ethnic Relations, 3 credits  
 950-313 The City Through Time and Space, 3 credits  
 950-323 Asian Americans, 3 credits  
 950-324 Hispanic Americans, 3 credits

**Group 4, The Urban Environment**

- 416-350 Geographic-Land Information Systems, 3 credits  
 950-306 Regulatory Policy and Administration, 3 credits  
 950-330 Environmental Politics and Policy, 3 credits  
 950-351 Transportation and the City, 3 credits  
 950-378 Environmental Law, 3 credits

**Internship/laboratory courses, 3 credits:**

- 950-461 Urban and Public Affairs Laboratory, 3 credits  
 950-497 Internship, 3-12 credits  
 950-498 Independent Study, 1-4 credits

**Capstone course, 3 credits:**

- 950-430 Seminar in Ethics and Public Affairs, 3 credits

**Requirements for the Minor****Supporting Course, 3 credits**

- 950-200 Introduction to Urban Studies, 3 credits

**Upper-Level Courses, 15 credits minimum****Core courses, 6 credits:**

- 950-303 Urban Sociology, 3 credits  
 950-331 Urban Politics and Policy, 3 credits

**One course from each of these three groups:****Group 1, Urban Politics and Government**

- 778-410 Intergovernmental Relations, 3 credits  
 950-330 Environmental Politics and Policy, 3 credits  
 950-406 State and Local Government, 3 credits

**Group 2, Urban Planning and Analysis**

- 950-309 Urban and Regional Economic Theory, 3 credits  
 950-351 Transportation and the City, 3 credits  
 950-412 Urban Planning, 3 credits

**Group 3, Urban Society**

- 416-341 The City and Its Regional Context, 3 credits  
 950-313 The City Through Time and Space, 3 credits  
 950-323 Asian Americans, 3 credits  
 950-324 Hispanic Americans, 3 credits

**Women's Studies****Interdisciplinary Minor**

**Professors:** Sidney Bremer; Estella Lauter (co-chairperson); Carol Pollis.

**Associate Professors:** Illene Noppe (co-chairperson); Dean Rodeheaver; Thea Sager; Lynn Walter.

**Assistant Professors:** L. DeLana Browning; Francis Carleton; Sarah Meredith; Joanne Stohs.

Women's studies is an essential component of a liberal arts education. It explores women's past and present contributions to societies as persons, creators, and thinkers, as well as the cultural, racial, and economic diversity of women's experiences. The program has been a part of UWGB's interdisciplinary curriculum since 1977. The courses examine the scholarship concerned with the factors that affect women's lives.

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 an interdisciplinary or disciplinary major. The minor is excellent preparation for further study in law, and 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, social work, paralegal work, and elementary and secondary teaching.

**Requirements for the Minor****Lower-Level Courses, 3 credits****Required:**

- 875-241 Women and Changing Values, 3 credits

**Upper-Level Courses, 15 credits minimum****Core courses, six credits required:**

- 242-477 Women as Creative Agents, 3 credits  
 481-336 Gender Roles, 3 credits  
 493-380 Women in the United States: Historical and Cultural Perspectives, 3 credits  
 875-345 Women, Race and Culture, 3 credits

**Choose nine credits from courses below or from those above not taken as core:**

- 875-340 Women, Work and Family, 3 credits  
 875-342 Women, Myth and Identity, 3 credits  
 875-348 Women and the Law, 3 credits  
 875-375 Women's Strategies for Change, 3 credits

**Related and recommended courses:**

- 242-272 Women and the Arts: Visual Arts, 3 credits  
 242-272 Women and the Arts: Performing Arts, 3 credits  
 552-206 Women in Literature, 3 credits  
 875-235 Perspectives on Human Sexuality, 3 credits

## Agriculture

### Preprofessional Program

Adviser: Charles A. Ihrke, associate professor.

UWGB offers good basic preparation for agricultural science. Pre-agriculture students ordinarily complete their first two years of study at UWGB and transfer into a professional agriculture program at one of the other UW campuses, such as the College of Agricultural and Life Sciences at UW-Madison, the Agriculture Department at UW-Platteville, the College of Agriculture at UW-River Falls, or the College of Natural Resources at UW-Stevens Point.

A degree in agriculture can lead to a variety of careers. Some graduates become owners or operators of production-commercial farms, while others continue on into advanced studies for careers as scientists or researchers. Still others go into agriculture-related business or industry, agricultural engineering, technical services, teaching, communications, conservation and recreation, nutritional fields, or public service.

Students should decide early where they wish to complete their degrees. It is important to choose lower-level courses carefully with the help of an adviser to ensure transferability to the chosen professional program.

Students intending to transfer to any agriculture or natural resources program will complete lower-level all-university requirements in the social sciences and humanities at UWGB. In addition, they will begin a program of studies in basic sciences, economics, and communications, including such courses as:

### Preprofessional Courses

These supporting courses would apply to most agriculture majors:

- 225-108 General Chemistry, 5 credits
- 298-202 Macro Economic Analysis, 3 credits
- OR
- 298-203 Micro Economic Analysis, 3 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 552-105 Expository Writing, 3 credits

Choices of remaining courses depend upon the requirements of the transfer institution and major. For this reason, students should choose an intended major and transfer school early so they can plan UW-Green Bay courses to meet transfer requirements.

Because agriculture includes many different majors, pre-agriculture programs will vary. Majors include such fields as agricultural economics, agronomy, dairy science, forestry, entomology, horticulture, landscape architecture, soil science, wildlife ecology, agricultural journalism, genetics, rural sociology, and many others. Pre-agriculture students should plan programs for their intended majors with the help of advisers from UWGB and the transfer institution.

## Architecture

### Preprofessional Program

Adviser: Ronald Baba, associate professor.

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 has one program of study leading to an accredited degree in architecture—the Master of Architecture program at UW-Milwaukee.

Students beginning their studies at UW-Green Bay have a choice of two paths to the Master of Architecture degree:

—they may complete two years at UWGB (about 58 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 an out-of-state institution with an accredited Master of Architecture program.

The second option has advantages. First, an appropriately chosen undergraduate degree provides a variety of career options in addition to preparation for architecture. Second, an undergraduate degree with specialization in a field such as computer science, graphic design, urban planning, urban design, and the like, builds a stronger foundation for the complex profession of architecture.

Most UW-Green Bay pre-architecture students have chosen to complete bachelor's degrees here and apply for entry into Master of Architecture programs. While a number have entered the Master of Architecture program at UW-Milwaukee, the majority have been admitted to graduate programs at out-of-state institutions such as Virginia, North Carolina, Illinois, Minnesota, Arizona, UCLA, Kansas, UC-Berkeley, Washington, U. of Cincinnati, and others.

The environmental design program at UW-Green Bay was developed specifically to provide pre-architectural studies. It provides course work in design methods, architectural graphics, and architectural and urban design. Students interested in combining architecture with urban scale problems usually coordinate the program with a major in urban studies. Those with interests in graphic design or studio art may select a major in communication and the arts.

### Preprofessional Program

#### Recommended Supporting Courses, 17-30 credits

##### Mathematics:

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

##### Engineering and physics:

- 325-313 Mechanics I, 3 credits
- 325-316 Strength of Materials, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits

##### Arts and communication:

- 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 French Revolution, 3 credits

**Core Courses, 18 credits**

- 168-106 Design Methods, 3 credits  
 950-210 Drawing Systems for the Designer, 3 credits  
 950-436 Environmental Design Studio I, 3 credits  
 242-437 Environmental Design Studio II, 3 credits  
 950-438 Environmental Design Studio III, 3 credits  
 242-439 Environmental Design Studio IV, 3 credits

**Alternate Major in Urban Studies****Supporting Courses, 12 credits:**

- 255-205 Social Science Statistics, 4 credits  
 255-301 Foundations for Social Research, 3 credits  
 950-200 Introduction to Urban Studies, 3 credits  
 950-202 Introduction to Public Policy, 3 credits

**Upper-Level Courses, 30 credits:**

- 416-350 Geographic-Land Information Systems, 3 credits  
 834-323 Land-Use Controls, 3 credits  
 834-340 Economics of Land Use, 3 credits  
 950-303 Urban Sociology, 3 credits  
 950-412 Urban Planning, 3 credits

Plus, the series of environmental design studios listed as core courses.

**Capstone course:**

- 950-430 Seminar in Ethics and Public Affairs, 3 credits

**Alternate Major in Communication and the Arts****Supporting Courses, 15 credits:**

- 168-106 Design Methods, 3 credits  
 242-202 Concepts and Issues of Modern Art, 3 credits  
 242-231 Introduction to Graphic Communications, 3 credits  
 950-200 Introduction to Urban Studies, 3 credits  
 950-210 Drawing Systems for the Designer, 3 credits

**Upper-Level Courses, 24 credits:**

- 242-331 Graphic Communications Studio I, 3 credits  
 242-332 Graphic Communications Studio II, 3 credits  
 242-370 Modern American Culture, 3 credits  
 416-350 Geographic-Land Information Systems, 3 credits  
 950-412 Urban Planning, 3 credits

Plus, the environmental design studios I through III, listed above.

Other courses, chosen with advisers, may be appropriate.

# Chiropractic

**Preprofessional Program**

**Advisers:** Academic Advising Office

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 course work, 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, 304 Organic Chemistry I and Laboratory, 4 credits  
 225-303, 305 Organic Chemistry II and Laboratory, 4 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 552-105 Expository Writing, 3 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  
 (calculus level)

- 820-102 Introduction to Psychology, 3 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.

## Counseling

### Preprofessional Program

Adviser: Robert Mendelsohn, associate professor.

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. UWGB offers a master of science degree in community human services with a counseling specialization. It 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 UW-Stout (vocational rehabilitation). UW-Green Bay offers the Bachelor of Social Work (B.S.W.) which is a suitable credential for employment in some fields and serves as preparation for Master of Social Work (M.S.W.) programs at UW-Milwaukee and UW-Madison.

**Alcohol and drug abuse counselors.** Not all positions in this field require college degrees. But others seek counselors with bachelor's or master's degrees in social work, guidance and counseling, education, psychology, nursing, and other fields. UW-Green Bay students intending this career field might major in psychology or sociology with minors in human development or social change and development. A Bachelor of Social Work degree is another possibility. Appropriate master's degrees include the community human services degree from UWGB and the M.S.W. from one of the granting institutions.

**Counselors.** Students seeking entry to this field may choose from among many majors including psychology, social work, sociology, human development, urban and public affairs, and social change and development. The UW-Green Bay master's degree in community human services or particular tracks from master's degree programs at other UW institutions would provide good advanced credentials.

**Clinical psychologists.** These 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 the criminal justice track of the social change and development major. Second majors or minors in psychology or sociology would be appropriate.

**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 sociology or 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. Sociology or psychology majors combined with appropriate interdisciplinary minors would provide good preparation. Individuals in many educational settings need teaching licensure. Many such positions require a master's degree. The UW-Green Bay-UW-Milwaukee cooperative master's degree program in educational psychology-counseling is one possibility. UWGB 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 or sociology coupled with interdisciplinary minors. UW-Stout has a master's degree program in vocational rehabilitation.

## Dentistry

### Preprofessional Program

Advisers: Joseph Mammino, associate professor; Richard J. Stevens, associate professor.

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 admitting students to their programs. Each dental school sets its own requirements. It is important for pre-dental students to seek information from their chosen school early so they can plan pre-dental studies appropriately.

UW-Green Bay provides preparation for dental schools, including specific required courses. The logical major for pre-dentistry and human life sciences is human biology, although students with particular interests in nutrition, psychology, field biology, chemistry, or physics might choose other majors, such as nutritional sciences, human development, or environmental science. It is not required that pre-dental students complete a science major, although some dental schools favor science majors. Pre-dental students are advised to plan an undergraduate major that offers career alternatives should they fail to gain admission to dental school.

UW-Green Bay's pre-dentistry 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 following minimum courses are those required for admission into that program. Students desiring entrance into out-of-state dentistry programs should get those schools' requirements and plan their programs with the pre-dentistry adviser.

### 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, 304 Organic Chemistry I and Laboratory, 4 credits
- 225-303, 305 Organic Chemistry II and Laboratory, 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 (calculus level)

#### Biology:

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits

#### English:

- 552-105 Expository Writing, 3 credits
- Any literature or composition course, 3 credits

#### Recommended electives:

- 204-302 Principles of Microbiology, 4 credits
- 204-303, 304 Genetics and Laboratory, 4 credits
- 204-340 Comparative Anatomy of Vertebrates, 4 credits
- 204-347 Developmental Biology, 4 credits
- 225-311 Analytic Chemistry, 4 credits
- 225-330, 331 Biochemistry and Laboratory, 4 credits
- 478-402, 404 Human Physiology/Animal Physiology Laboratory, 5 credits
- 478-413 Neurophysiology, 3 credits
- 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

# Engineering

## Preprofessional Program

**Advisers:** Harold Day, professor; Ceil Hintz, academic adviser; Robert Lanz, associate professor; Coral Lee MacKay, academic adviser; Nancy Sell, professor.

In addition to its own joint engineering program with UW-Milwaukee, offering degrees in civil, electrical, industrial, materials, and mechanical engineering, UW-Green Bay 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 students expect to earn their degrees. Generally, students 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 UWGB's Academic Advising Office early in their freshman year so they may plan appropriate lower-level courses.

Institutions in Wisconsin offering engineering degrees are:

UW-Madison—degrees in agricultural, chemical, civil and environmental, electrical and computer, engineering mechanics, geological, industrial, mechanical, metallurgical, nuclear and engineering physics.

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.

# Law

## Preprofessional Program

**Advisers:** Francis Carleton, assistant professor; Anthony Galt, professor; Michael Kraft, professor; David Littig, associate professor.

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:

—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;

—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 UWGB 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
- 552-104 Introduction to Literature, 3 credits
- 552-105 Expository Writing, 3 credits
- 552-304 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 American Thought and Culture I, 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 Criticism of Values, 3 credits
- 736-304 American Philosophy, 3 credits
- 778-100 Introduction to Political Science, 3 credits
- 778-101 American Government and Politics, 3 credits
- 778-310 The American Presidency, 3 credits
- 778-316 American Legislative Process, 3 credits
- 778-320 Constitutional Law, 3 credits

- 778-330 Law and the Judicial Process, 3 credits
- 778-340 Political Theory, 3 credits
- 778-360 International Politics, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 820-202 Introduction to Social Psychology, 3 credits
- 875-203 Prejudice and the Human Condition, 3 credits
- 875-204 Freedom and Social Control, 3 credits
- 875-340 Women, Work and Family, 3 credits
- 900-202 Introduction to Sociology, 3 credits
- 950-202 Introduction to Public Policy, 3 credits
- 950-215 Introduction to Public Administration, 3 credits

**Creative power in thinking:**

- 736-111 Elementary Logic, 3 credits
- 875-360 Models and Social Change, 3 credits
- 950-201 Problem Analysis and Decision Making, 3 credits
- 950-408 Public Policy Analysis, 3 credits
- 950-451 Decision Theory and Methods, 3 credits

**In addition, UWGB has a number of law-related courses which may help students prepare for law school. These include:**

- 216-206 *Law and the Individual*, 3 credits
- 216-305 Business Law I, 3 credits
- 216-306 Business Law II, 4 credits
- 875-303 Criminal Justice Process, 3 credits
- 875-325 Law in Society, 3 credits
- 875-348 Women and the Law, 3 credits
- 900-404 Criminology, 3 credits
- 950-376 Administrative Law, 3 credits
- 950-378 Environmental Law, 3 credits

# Medical Technology

**Preprofessional Program**

**Adviser:** Dorothea Sager, associate professor.

Medical technology is normally a four-year program of study. The first two years are spent in preprofessional studies satisfying specific requirements for entry into the final two years of the professional program.

UW-Green Bay offers courses that fulfill requirements for the first two years of preprofessional study. The degree in medical technology is available at the University of Wisconsin institutions at Eau Claire, LaCrosse, Madison, Milwaukee, Oshkosh, Stevens Point, and Superior. Two private institutions in the state—Marquette University and St. Norbert College—also offer the degree. Each institution has its own requirements for entry into the professional program and students intending to fulfill preprofessional studies at UWGB should learn the requirements of the school they wish to attend and plan their programs accordingly.

The following list of courses represents preprofessional requirements for one of the medical technology programs in Wisconsin. It is included to give an example of courses required for the field. Requirements at other institutions are similar. Students planning to seek admission to medical technology professional programs should acquire the preprofessional program advising guide and consult with the medical technology adviser in their freshman year.

**Preprofessional Courses**

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 204-302 Principles of Microbiology and Laboratory, 4 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 552-100 College Writing, 3 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
- 600-203 Calculus and Analytic Geometry II, 4 credits
- 600-260 Introductory Statistics, 4 credits
- 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

**Also:**

- Social sciences courses, 6 credits
- Humanities courses, 6 credits

## Medicine

### Preprofessional Program

**Advisers:** Joseph Mannino, associate professor; Richard Stevens, associate professor.

Almost all medical schools require a bachelor's degree for entrance and specify certain subjects that a candidate must have completed. Students seeking admission to medical school must demonstrate exceptional ability, high aptitude in science, and outstanding achievement. Premedical students must take the Medical College Admissions Test (MCAT).

The most logical major for UW-Green Bay students interested in premedicine and human life sciences is human biology. Other majors are possible.

UW-Green Bay's premedical program has demonstrated its effectiveness. UWGB graduates with grade point averages of 3.5 or better and high scores on the MCAT have virtually all been accepted into medical schools. Another advantage of the program is offered by the multidisciplinary nature of its majors which prepares students for professional activities in addition to medicine. This allows more than one choice of graduate education opportunities.

Wisconsin has two medical schools—the Medical College of Wisconsin in Milwaukee and the University of Wisconsin Medical Center in Madison. Students planning to seek admission to one of those programs or to an out-of-state medical college should get requirements from the medical college so they can plan undergraduate studies accordingly.

The following list of required UW-Green Bay courses is based on requirements for the medical colleges in Wisconsin. In addition, students complete requirements of their chosen 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
- 225-302, 304 Organic Chemistry I and Laboratory, 4 credits
- 225-303, 305 Organic Chemistry II and Laboratory, 4 credits
- 225-311 Analytical Chemistry, 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 (calculus level)

#### Biology:

- 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, 304 Genetics and Laboratory, 4 credits
- 204-340 Comparative Anatomy of Vertebrates, 4 credits
- 204-347 Developmental Biology, 4 credits
- 478-402, 404 Human Physiology and Animal Physiology Laboratory, 5 credits
- 478-413 Neurophysiology, 3 credits

#### Mathematics, a minimum of one 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

(some out-of-state medical colleges recommend or require differential and integral calculus)

#### English:

- 552-105 Expository Writing, 3 credits
- One literature course, 3 credits

## Mortuary Science

### Preprofessional Program

**Advisers:** Academic Advising Office

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

- 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
- 216-300 Introductory Accounting, 3 credits
- 216-305 Business Law I, 3 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 448-100 History of the Modern World, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 552-100 College Writing, 3 credits
- OR
- 552-105 Expository Writing, 3 credits
- 778-100 Introduction to Political Science, 3 credits
- 778-101 American Government and Politics, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits

## Nursing

### Preprofessional Program

Adviser: Coral Lee MacKay, academic adviser.

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 individuals who are just beginning their nursing studies. This allows prospective nurses to spend approximately two years studying at UWGB before transferring to one of the University of Wisconsin campuses which offers the B.S.N. These are the universities at Eau Claire, Madison, Milwaukee, and Oshkosh.

UW-Green Bay also supports professional nursing education by providing the required academic coursework for students in the Bellin College of Nursing in Green Bay. Students complete professional courses at the Bellin College and receive their degrees from that institution.

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 two years at UWGB and then transfer into a B.S.N. program should consult an adviser early to insure that their studies fulfill requirements of the transfer institution.

### Preprofessional Courses

- 204-202 Principles of Biology I, 4 credits
- 204-302 Principles of Microbiology, 4 credits
- 225-108 General Chemistry, 5 credits
- 225-300 Bio-organic Chemistry, 3 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 362-102 Introduction to Environmental Science, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 481-210 Introduction to Human Development, 3 credits
- 481-343 Adulthood and Aging, 3 credits
- 552-100 College Writing, 3 credits
- OR
- 552-105 Expository Writing, 3 credits
- 694-300 Human Nutrition, 3 credits
- 736-101 Introduction to Philosophy, 3 credits
- 736-102 Problems in Ethics, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits

## Occupational Therapy

### Preprofessional Program

Advisers: Academic Advising Office

Students can complete at least three 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 three-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.

The following UW-Green Bay courses satisfy one year of preprofessional requirements for UW-Madison.

### Preprofessional Courses

- 204-202 Principles of Biology I, 4 credits
- 204-203 Principles of Biology II, 4 credits
- 225-108 General Chemistry, 5 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-343 Adulthood and Aging, 3 credits
- 552-100 College Writing, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits
- OR
- 900-203 Minority Groups, 3 credits
- OR
- 900-308 Sociology of the Family, 3 credits

### Also:

Literature elective



# Optometry

## Preprofessional Program

Advisers: Academic Advising Office

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 (O.A.T.) is required as well.

Advisers can help students get information about schools of optometry and their specific requirements, and plan appropriate preprofessional programs.

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 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
- 552-105 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 in computer science, genetics, human anatomy and physiology, sociology, business, economics, and public speaking.

# Pharmacy

## Preprofessional Program

(includes pharmaceutical sciences, pharmacology, and toxicology)

Advisers: Academic Advising Office

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.

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, 304 Organic Chemistry I and Laboratory, 4 credits
- 225-303, 305 Organic Chemistry II and Laboratory, 4 credits
- 298-202 Macro Economic Analysis, 3 credits
- 298-203 Micro Economic Analysis, 3 credits
- 552-105 Expository Writing, 3 credits
- 600-202 Calculus and Analytical Geometry I, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits
- 900-202 Introduction to Sociology, 3 credits

### Also:

Literature courses

Electives in humanities and social sciences

Pre-pharmacology/toxicology requirements exclude 298-203 and 900-202 and include only 3 credits each of humanities and social sciences electives.

## Physical Therapy

### Preprofessional Program

**Adviser:** James Marker, assistant professor.

Students intending careers in physical therapy may complete two years of preprofessional studies at UW-Green Bay to prepare for transfer into a professional program. UW-Madison and UW-LaCrosse offer the bachelor's degree in physical therapy. Marquette University offers the degree, but because it accepts freshmen, it is difficult to transfer in from another institution.

Students can generally expect to spend two and one-half years of study at the professional level after completing a two-year preprofessional program. Requirements for entry into the programs at Madison and LaCrosse differ slightly. Both programs set minimum grade point averages and require completion of a specific number of preprofessional credits and actual experience in settings with patients.

Admission is competitive. Students intending to transfer to physical therapy professional programs should seek advising early. Advisers can provide specific requirements for each program and help to plan appropriate preprofessional programs.

Following are lower-level courses at UW-Green Bay that typically would transfer to UW-Madison.

### Preprofessional Courses

- 204-202, 203 Principles of Biology I, II, 8 credits  
 225-211, 212 Principles of Chemistry I, II, 10 credits  
 255-205 Social Science Statistics, 4 credits  
 OR  
 600-260 Introductory Statistics, 4 credits  
 246-133 Fundamentals of Public Address, 3 credits  
 481-331 Infancy and Early Childhood, 3 credits  
 481-343 Adulthood and Aging, 3 credits  
 481-435 Abnormal Behavior, 3 credits  
 552-100 College Writing, 3 credits  
 OR  
 552-105 Expository Writing, 3 credits  
 754-103, 104 Fundamentals of Physics I, II, 10 credits  
 820-102 Introduction to Psychology, 3 credits

#### Also:

Literature and humanities electives

(Depending on ACT math score, it may be necessary to take 600-101 Intermediate Algebra, and 600-104 Elementary Functions: Algebra and Trigonometry.)

## Physician Assistant

### Preprofessional Program

**Advisers:** Academic Advising Office

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-Green Bay courses listed here are approved for preprofessional work by the Madison physician assistant program. Completing these courses does not guarantee admission. Prospective physician assistants should consult with advisers in planning their programs. While the list below represents courses approved for entry to the physician assistant program, additional courses may be required for entry to UW-Madison, depending on high school credits in areas such as math 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  
 552-100 College Writing, 3 credits  
 OR  
 246-100 Writing Skills Laboratory, 4 credits  
 820-102 Introduction to Psychology, 3 credits

#### Also:

Courses in the social sciences and humanities

# Theology

## Preprofessional Program

Adviser: Elmer Havens, professor.

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 preparing for theological studies 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 humanistic studies which has a religious studies area of emphasis. Many different minors might be chosen, including 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 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
- 448-100 History of the Modern World, 3 credits
- 448-201 Ancient Civilization, 3 credits
- 448-202 The Middle Ages, 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
- 448-306, 307 European Thought and Culture I, II, 6 credits
- 493-101 Foundations of Western Culture I, 3 credits
- 493-102 Foundations of Western Culture II, 3 credits
- 493-201 Introduction to Humanities I, 3 credits
- 493-202 Introduction to Humanities II, 3 credits
- 493-204 Humanistic Values Through Literature, 3 credits
- 493-205 Personal Values and Social Reform, 3 credits
- 493-225 American Indian Studies: Arts and Ceremonial Traditions, 3 credits
- 493-226 American Indian Studies: History and Verbal Traditions, 3 credits
- 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
- 493-332 Art and Social Thought, 3 credits
- 493-372 American Indian Mythology and Literature, 3 credits
- 552-105 Expository Writing, 3 credits
- 736-101 Introduction to Philosophy, 3 credits
- 736-102 Introduction to 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:

- 552-214, 215 Introduction to English Literature I, II, 6 credits
- 552-216, 217 Introduction to American Literature I, II, 6 credits

Also, students should take selected upper-level courses in fiction, drama, and poetry.

### Foreign language:

Students should take courses in French, German, or Spanish.

# Veterinary Medicine

## Preprofessional Program

Advisers: Academic Advising Office

Each school of veterinary medicine has its own requirements and students planning careers as veterinarians need to plan both preprofessional course work and practical experiences to enhance their chances of acceptance. Veterinary schools value laboratory experience and 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. To qualify for admission, students must have completed 60 credits of college course work including 40-43 credits of required courses, and submit scores on the Graduate Record Exam. In addition to grade point average, evidence of motivation, promise of effective performance, a broad range of interests, communication skills, and leadership abilities are taken into consideration. Wisconsin students may plan to meet requirements and apply to out-of-state veterinary schools as well.

Preveterinary medicine requirements can be met at UW-Green Bay. An advantage of the UW-Green Bay preveterinary program is the interdisciplinary emphasis which provides career options in addition to veterinary medicine. Instead of applying to a college of veterinary medicine as soon as prerequisites are completed, students may be wise to complete a bachelor's degree to strengthen their preveterinary programs and gain career flexibility. Students choosing to finish a bachelor's degree before pursuing veterinary medicine would logically choose majors in biology or chemistry coupled with an interdisciplinary minor in environmental science. Students should plan their programs with an adviser to make sure 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 to the University of Minnesota College of Veterinary Medicine would vary somewhat.

## Preprofessional Courses

- 204-202 Principles of Biology I, 4 credits
- 204-303 Genetics, 3 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-300, 301 Bio-Organic Chemistry and Laboratory, 4 credits
- 225-330 Biochemistry, 3 credits
- 552-100 College Writing, 3 credits
- 552-105 Expository Writing, 3 credits
- 600-260 Introductory Statistics, 4 credits
- 754-201 Principles of Physics I, 5 credits
- 754-202 Principles of Physics II, 5 credits

### Also:

Social sciences and humanities courses, 6 credits

# ASSOCIATE OF ARTS DEGREE

## Associate of Arts Degree

The associate of arts degree at the University of Wisconsin-Green Bay offers a flexible program with areas of emphasis in a broad range of subjects and represents a degree earned through a fully accredited university-level educational program.

The associate degree certifies completion of a focused, structured program of study. This accomplishment represents essentially half of a bachelor's degree and a minimum of 62 degree credits.

There are several reasons why a person might find an A.A. degree beneficial:

- to add breadth and depth to the vocational training he or she has or plans to receive;
- to strengthen opportunities for advancement by gaining additional education and certification;
- to serve as a stepping stone toward a bachelor's degree;
- to provide an opportunity to pursue a special academic interest in a focused, systematic way;
- for personal enrichment and pleasure.

### Requirements for the Degree

Requirements for the associate of arts degree at UWGB include:

- a total of 62 degree credits;
- a minimum of 15 credits of UWGB course work (meaning that a maximum of 47 acceptable transfer credits can be counted toward the associate degree);
- a grade point average of 2.0 or better for all work completed at UWGB;
- completion of general-education requirements, except for the senior seminar and the two upper-level writing emphasis courses, with the following modification and specifications:
  - a. completion of a minimum of 40 credits of work in general-education courses, as defined in the *Academic Advising Handbook*;
  - b. in humanities and fine arts, a minimum of 9 and a maximum of 15 from at least two different areas; no more than six credits may be taken in fine arts (in the fine arts, only courses in the history and appreciation of the fine arts can be counted toward meeting this requirement);
  - c. in natural sciences/mathematics, a minimum of 12 and a maximum of 16 credits with not fewer than eight in the natural sciences, including a laboratory course (mathematics courses taken to fulfill this requirement are not included in the 40 credit minimum noted in [a] above);
  - d. in social sciences, a minimum of nine and a maximum of 15 credits from at least two different areas;
  - e. other-culture requirement, 3 credits;
  - f. ethnic studies requirement, 3 credits.
- within the 40 credits of general education:
  - a. at least one course must have a historical perspective;
  - b. at least one course must be taught from primary texts.
- a minimum of 12 additional credits in one area of emphasis developed by the student and a faculty adviser;
- acceptable score on an English proficiency test or three credit hours of college level writing;
- supporting subjects as may be required by the individual area of emphasis;
- additional elective credits to total 62 or more earned degree credits.

Students who complete these requirements will receive a transcript entry specifying that the associate degree awarded has met UW System standards for associate degrees.

A summary shows these minimum requirements:

- 40 credits of general education;
- 12 credits area of emphasis;
- 0-9 credits writing and mathematics as determined by ACT scores;
- 7-10 credits electives and/or supporting subjects;
- 62-68 total credits.**

Associate of arts degree students must fulfill the same admission requirements as students in the bachelor's degree program. All of the services available to regular degree students apply to associate candidates and they can participate as fully in the life of the campus as they wish.

Tuition and fee charges for associate degree students are the same as for bachelor's degree students.

Persons interested in the associate of arts degree program should read especially the sections in this catalog on admissions and costs, general-education requirements, and descriptions of the academic programs which they may wish to emphasize. More information is available from the Office of Admissions and Orientation.

Associate of arts degree requirements described here fulfill lower-level general-education requirements only at UWGB.

# MASTER'S DEGREES

## Master's Degrees

The University of Wisconsin-Green Bay offers two types of programs leading to master's degrees.

The first type consists of degrees awarded by UW-Green Bay in three distinct areas of study. They are:

- Master of Science in Administrative Science
- Master of Science in Community Human Services
- Master of Science in Environmental Science and Policy

The second group comprises cooperative programs with the Universities of Wisconsin at Oshkosh and Milwaukee. Course work in these cooperative programs is normally completed on the UW-Green Bay campus, but the degree is awarded by the sponsoring institution.

The graduate program is a direct manifestation of the University's mission. It supports that mission by providing problem-centered, interdisciplinary, master's-degree-level educational opportunities. The program is innovative and interdisciplinary in both course offerings and projects that students undertake for the thesis. A thesis is a major component of the program.

Programs of study at UW-Green Bay combine elements not usually linked in most master's programs and include a solid foundation of core courses and other requirements such as internships and thesis research. The program seeks to be an alternative to traditional programs for students who recognize that complex problems can first be addressed from an interdisciplinary perspective.

The program serves students from the region, the state, and beyond. A number of part-time students are served, in addition to full-time graduate students. Students generally focus their thesis research on problems of the region, but the skills and concepts transfer and apply to the study and resolution of complex problems in other areas.

The UW-Green Bay graduate program grew from the undergraduate program and reflects its philosophy and goals. The present three programs have links to various undergraduate units and draw faculty from throughout the University to teach courses, supervise research, and contribute in other ways.

### Administrative Science

Administrative science is concerned with the effective management of formal organizations. A principle objective of administrative science is to prepare skilled and imaginative individuals for middle-management and policy-making positions in government, nonprofit organizations and the private sector. The program offers areas of emphasis in:

**Public and private management.** For students who wish to pursue primarily management careers in public, private and nonprofit organizations.

**Policy analysis and planning.** For students who want to focus their graduate studies on policy issues associated with contemporary public problem-solving activities, on characteristics of the public policy system, and on methods of policy analysis and planning.

**Decision science and systems analysis.** For quantitatively oriented students who wish to engage in sophisticated systems planning and analysis.

### Community Human Services

Community human services focuses on the dynamics, structure, management and improvement of such organizations as mental health clinics, social and welfare agencies, community organizations, rehabilitation agencies, hospitals, and certain aspects of police departments, schools, and industrial organizations. The program seeks to provide sufficient knowledge to permit graduates to understand, modify, create and use these organizations to assist others.

Several specializations are available. These include:

- Administration and Management of Human Services
- Counseling
- Evaluation of Human Services Programs
- Organizational Development
- Planning Human Services Programs

The community human services program is also offered at UW-Oshkosh and UW-LaCrosse through cooperative agreements. This makes additional specializations available to Green Bay students.

### Environmental Science and Policy

Environmental science and policy is appropriate for students with interests in the scientific and/or public policy and administration aspects of environmental problems such as waste management, resource management, ecosystems studies, and technology development and assessment. Two areas of emphasis are available:

**Environmental science.** For students interested in positions dealing with a variety of environmental problems in industry, consulting, laboratory/engineering firms and/or government agencies. Specializations available within this track are ecosystems studies, resource management, waste management and resource recovery, and quantitative methods and data analysis.

**Environmental policy and administration.** For students interested in policy analysis, planning and administration, leading to positions in government agencies, legislative bodies, environmental organizations or industry. Possible emphases in the track are institutions and processes, management, methodology, and public policy.

### Cooperative Programs

UWGB, in cooperation with the Universities of Wisconsin at Milwaukee (UWM) and Oshkosh (UWO), offers four master's degrees in the field of education and one in business administration (MBA). The course work for these programs is normally completed on the UW-Green Bay campus. The cooperative programs are:

- Master of Science in Administrative Leadership—Educational Administration and Supervision (UWM)
- Master of Business Administration (UWO)
- Master of Science in Curriculum and Instruction (UWM)
- Master of Science in Educational Psychology—Counseling (UWM)
- Master of Science in Education—Reading (UWO)

### For More Information

Detailed information on graduate programs at UW-Green Bay is available from the Office of Graduate Studies.

# COURSE DESCRIPTIONS

## Instructional Unit Numbers

The instructional unit number listed with each group of course descriptions is necessary 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 *Timetables* and in this catalog.

### Instructional unit numbers are:

107 Accounting	556 Literature and Language: German
156 Anthropology	558 Literature and Language: Spanish
168 Art	600 Mathematics
204 Biology	644 Military Science
216 Business Administration	670 Music
225 Chemistry	672 Applied Music
242 Communication and the Arts	689 Nursing
246 Communication Processes	694 Nutritional Sciences
255 Community Sciences	736 Philosophy
266 Computer Science	742 Physical Education
296 Earth Science	754 Physics
298 Economics	778 Political Science
302 Education	820 Psychology
325 Engineering	Public Administration (see 950)
English (see 552)	834 Regional Analysis
Environmental Policy and Planning (see 950)	867 Senior Seminars
362 Environmental Science	875 Social Change and Development
French (see 554)	892 Social Services/ Social Work
416 Geography	900 Sociology
German (see 556)	Spanish (see 558)
448 History	915 Theatre
478 Human Biology	950 Urban and Public Affairs Urban Studies (see 950)
481 Human Development	
493 Humanistic Studies	
520 Information and Computing Science	
552 Literature and Language: English-American	
554 Literature and Language: French	

## Course Periodicity

Every course described in this catalog is not offered every semester, though nearly all are offered regularly, such as every spring, or every fall, or in odd-numbered or even-numbered years. Some courses are offered only during the January interims. *At the time of printing, a proposal to eliminate the January interim period beginning with the 1993-94 academic year was under consideration. Should the proposal be accepted, January interim classes will necessarily be re-scheduled. Students planning programs of study should get up-to-date Timetable information from the Registrar's office and seek the assistance of advisers.* Courses offered at regular intervals are indicated with codes following the course description. Up-to-date information on course periodicity is published in each *Timetable*.

### Codes for course periodicity are:

F	Every fall semester
FE	Alternate fall semesters, even-numbered academic years (example: 1992-93, 1994-95)
FO	Alternate fall semesters, odd-numbered academic years (example: 1993-94, 1995-96)
S	Every spring semester
SE	Alternate spring semesters, even-numbered academic years (example: 1992-93, 1994-95)
SO	Alternate spring semesters, odd-numbered academic years (example: 1993-94, 1995-96)
J	Every January interim
JE	Alternate January interims, even-numbered academic years (example: 1992-93, 1994-95)
JO	Alternate January interims, odd-numbered academic years (example: 1993-94, 1995-96)

## 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 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 for 107-301 Intermediate Accounting is 107-300, 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.

### Abbreviations commonly used in course descriptions are:

ARR	arranged
conc enroll	concurrent enrollment
conc reg	concurrent registration
cons inst	consent of instructor
cr	credit(s)
jr st	junior status
min cum GPA	minimum cumulative grade point average
P	prerequisite(s)
P-NC	pass-no credit
Rec	recommended
soph st	sophomore status
sr st	senior status

## 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 course's "home" unit. This is one of the many reasons students should seek advising in designing their programs of study.

## Timetables

*Timetables* published for each semester, January 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 selected topics, student-led courses, independent study, internships, distinction in the major, and senior honors projects. General descriptions of each type of course follow. They are cited by number and title in the course lists of units offering them. Information on how to enroll 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. One 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 283X number. Those calling for more advanced preparation carry the 483X number and normally 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 consisting 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 adviser 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 for all courses indicated on the academic plan for the major; 3.75 gpa in upper-level major 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.

## 107 Accounting

### 107-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

### 107-298 Independent Study 1-4 cr.

See Courses with Variable Content.

### 107-300 Introductory Accounting 3 cr.

Principles, concepts and terminology of financial accounting; processes by which accounting data are recorded, summarized and reported; accounting for sole proprietorships, partnerships and corporations; current and fixed assets, current and long-term liabilities, owner's equity account. P: soph st and 266-155. (F,S)

### 107-301 Intermediate Accounting 4 cr.

Theories of financial accounting practice; preparation of income statements and balance sheets; the valuation of cash, receivables, inventories, long-term investments, fixed assets, liabilities, and owner's equity accounts; relevant APB opinions and FASB statements. P: 107-300. (F,S)

### 107-302 Accounting for Administrators 3 cr.

Accounting concepts and methods; interpretation and use of accounting reports and analyses for planning, coordination and control; cost-profit-volume relations; budgeting; effects of taxation and price level changes on decision-making. P: 107-300. (F,S)

### 107-305, 306 Business Law I, II 3, 4 cr.

See 216-305, 306.

### 107-312 Managerial Accounting 3 cr.

Principles and procedures in accumulating cost data in an organization; role of cost accounting in management and how cost data are recorded in accounts; job order and process cost systems; use of flexible budgeting and standard cost accounting in the context of budgetary control. P: 107-302; Rec: 216-217 and 600-260. (F)

### 107-313 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 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 Institutional Accounting 3 cr.

Accounting theory and practice in governmental and institutional jurisdictions; control of revenues and expenditures through budgets and allotments; comparison with commercial accounting; in depth study of the nature and purpose of separate funds. P: 107-300. (F,S)

### 107-348 Practicum in Computer-Assisted Financial Analysis 3 cr.

Integration and practical application of finance, accounting, taxation and marketing through microcomputer spreadsheets; use of spreadsheets in development of cash flow, feasibility, break-even and related models; use of the computer in evaluating alternative strategies, sensitivity analysis, and report generation. P: 216-343; Rec: 266-155. (J)

### 107-395 Practicum in Financial Statement Analysis 3 cr.

Analysis of published financial statements; review of balance sheet and income statements; other topics such as short- and long-term liquidity, funds flow analysis and ROI analysis. (Counts for upper-level finance credit.) P: 107-300 and 216-343. (J)

### 107-410 Introduction to Income Tax Theory and Practice 3 cr.

Federal and state income tax as applied to individuals, partnerships and corporations; tax and raw source materials; tax planning and determination. P: 107-300; Rec: 107/216-305. (F)

### 107-411 Financial Information Systems 3 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; Rec: 107/216-451. (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 Advanced Managerial Accounting 3 cr.

Cost concepts for decision-making; cost-profit analysis, break-even analysis, differential and comparative cost, capital budgeting and control, profit performance measurements and linear programming for decision-making; responsibility accounting concepts and implications of transfer pricing for performance evaluation. P: 107-312; Rec: 600-260. (S)

### 107-415 Advanced Income Tax Theory and Practice 3 cr.

Advanced topics in income tax at state and federal levels, emphasizing federal tax as it relates to corporations, estates, trusts and partnerships, tax planning and determination. P: 107-410. (S)

### 107-451 Design of Computer-Assisted Systems 3 cr.

See 216-451.

### 107-452 Advanced Microcomputer Business Applications 3 cr.

See 216-452.

### 107-478 Senior Distinction in Accounting 3 cr.

See Courses with Variable Content.

### 107-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

### 107-497 Internship in Accounting 3-12 cr.

See Courses with Variable Content.

### 107-498 Independent Study 1-4 cr.

See Courses with Variable Content.

## 156 Anthropology

### 156-100 Varieties of World Culture 3 cr.

The variety of ways of life that exist in the world and the concepts of culture, cultural relativity, and ethnocentrism. Representative case studies of tribal and peasant societies are considered. (F,S)

### 156-110 Introduction to Physical Anthropology 3 cr.

A study of populations from a biological evolutionary perspective: evolutionary history, diversity, and adaptations of human beings and the mutual interaction and influence of human culture and biology within an evolutionary framework. (Credit is not granted for both 156/478-110 and 478-102.)

### 156-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

### 156-298 Independent Study 1-4 cr.

See Courses with Variable Content.

### 156-303 Political, Economic and Environmental Anthropology 3 cr.

How people, nature, and culture interrelate. The approaches hunting, agricultural, and industrial societies use in adapting to the physical environment. P: 156-100. (SE)

### 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 and kin groups; task groups; caste and class. P: jr st. (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. P: jr st. (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 UWGB anthropology faculty sponsor. P: soph st; 156-100 or 110 or 478-110. (F,S)

**156-483X Selected Topics 1-4 cr.**  
See *Courses with Variable Content*.

**156-497 Internship in Anthropology 3-12 cr.**  
See *Courses with Variable Content*.

**156-498 Independent Study 1-4 cr.**  
See *Courses with Variable Content*.

## 168 Art

**168-101 Tool Safety and Materials 1 cr.**  
Acquaints students with a wide range of materials and safe working practices and methods, including power hand tools, joining, glues, plastics, wood, metal, fiberglass, brazing, riveting, forging and vacuumforming. P: conc enroll in 168-106; P-NC basis. (F,S)

**168-105 Drawing 3 cr.**  
Introduction to studio art work and to fundamental concepts of drawing structure and designing; emphasis upon two-dimensional art work employing various drawing techniques in black and white media. (F,J,S)

**168-106 Design Methods 3 cr.**  
Investigates spatial design as a decision-making and problem-solving process bounded by criteria which include human sensory systems, basic structural systems and materials. P: conc enroll in 168-101. (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. (F,S)

**168-210 Introduction to Painting 3 cr.**  
Painting media; oil, watercolor, and acrylics and their inherent expressive qualities and characteristics. Rec: 168-105, 106, 107. (F,S)

**168-220 Introduction to Sculpture 3 cr.**  
Various sculpture media and their inherent expressive qualities; construction of basic forms using clay, plaster, cement and other media. P: 168-106; Rec: 168-105, 107. (F,S)

**168-230 Introduction to Ceramics 3 cr.**  
The forming of clay by pitch, slab and coil methods and throwing on the wheel; pottery decoration and glaze application. Rec: 168-105, 106, 107. (F,S)

**168-243 Introduction to Photography 3 cr.**  
See 246-243. Rec: 168-105, 106, 107.

**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. Repeatable for 3 credits. Rec: 168-105, 106, 107. (F)

**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. Rec: 168-105, 106, 107. (F,S)

**168-270 Introduction to Printmaking 3 cr.**  
Exploration of various printmaking media such as relief, monoprint, callograph, intaglio and lithography. P: 168-105; Rec: 168-106, 107. (F,S)

**168-283X Selected Topics 1-4 cr.**  
See *Courses with Variable Content*.

**168-298 Independent Study 1-4 cr.**  
See *Courses with Variable Content*.

**168-302 Intermediate Drawing 3 cr.**  
Experimental conceptual and transformative approaches to drawing. The human figure will be subject matter for half the course. P: 168-105, 106, and 107. (F,S)

**168-311 Intermediate Painting 3 cr.**  
Techniques for personal expression; composition and development of imaginative concepts in oil paint and allied media. P: 168-105, 106, 107, and 210. (F,S)

**168-321 Intermediate Sculpture 3 cr.**  
Intermediate work in sculpture: metal fabrication, casting of metals, carving, lamination of plastics, and innovative methods of working with different materials. P: 168-105, 106, 107, and 220. (F,S)

**168-331 Intermediate Ceramics 3 cr.**  
Intermediate work in ceramic media; mold work, wheel work or handbuilding; aesthetics, history and technology of ceramics. P: 168-105, 106, 107, and 230. (F,S)

**168-343 Photography II 3 cr.**  
See 246-343. P: 168-105, 106, 107, and 168/246-243.

**168-344 Photography III 3 cr.**  
See 246-344.

**168-345 Designing Multiple Media Applications of Photography 3 cr.**  
See 246-345. P: 168-105, 106, 107, and 168/246-243.

**168-353 Textiles: Fiber Techniques 3 cr.**  
Varied techniques for creating two- and three-dimensional forms with fibers and pliable linear materials; weaving (on- and off-loom) with crochet, knotting and other fiber construction techniques. P: 168-105, 106, and 107; Rec: 168-250. (F)

**168-355 Intermediate Textiles: Papermaking 3 cr.**  
Potential of handmade paper as a primary artistic material; pulp processing, sheet forming, poured pulp, color application, and three-dimensional techniques in casting, molding and assemblage. P: 168-105, 106, and 107; Rec: 168-250. (S)

**168-364 Intermediate Art Metals: Jewelry 3 cr.**  
Jewelry and art metals techniques: casting, fabricating and assembling mixed-media objects. P: 168-260. (S)

**168-371 Intermediate Relief Printing 3 cr.**  
Relief printing techniques: woodcut, collage print, linoleum cut and wood engraving. P: 168-105, 106, 107, and 270. (FE)

**168-373 Intermediate Intaglio 3 cr.**  
Intaglio techniques: dry point, aquatint and various etching procedures. P: 168-105, 106, 107, and 270. (FO)

**168-375 Screen Printing 3 cr.**  
Studio work in screen printing, including basic materials and equipment, blackout stencil making, paper stencil, pochoir, water soluble film, and photo-emulsion technique. P: 168-105, 106, and 107; 168-270 or 243. (SO)

**168-377 Intermediate Lithography 3 cr.**  
Lithography techniques: plate lithography, drawing and process. P: 168-105, 106, 107, and 270. (FE)

**168-390 19th and 20th Century Art 3 cr.**  
The evolution of art styles from neo-classicism to surrealism and their historic and cultural origins. Field trip required. P: 242-102 and 103. (F)

**168-395 Exhibition Development and Design 2 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. P: jr st. (F)

**168-396 Gallery Practicum 2 cr.**

Practical experience in the practices and methods of the museum and art gallery profession, emphasizing exhibition design, installation and evaluation. Field trips required. 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. Nine credits repeatable. 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. May be repeated to a maximum of 9 cr. P: 168-311. (F,S)

**168-421 Advanced Sculpture 3 cr.**

Techniques and equipment; construction of tools; investigation of traditional and innovative materials as related to the needs and aesthetic considerations of the sculptor. May be repeated to a maximum of 9 cr. P: 168-321. (F,S)

**168-431 Advanced Ceramics 3 cr.**

Extension and development of ceramic techniques and aesthetics into a significant personal expression and development of a portfolio. May be repeated to a maximum of 9 cr. P: 168-331. (F,S)

**168-443 Advanced Problems in Photography 3 cr.**

See 246-443.

**168-444 Time Duration Visual Media 3 cr.**

See 246-444. P: 168/246-243 and 343.

**168-453 Advanced Textiles 3 cr.**

Exploration of one area of textiles or papermaking, such as handmade paper, weaving and related fiber construction techniques, alteration of prewoven fabrics; development of individual expressive style. Nine credits repeatable. P: 168-250 or 353 or 355. (F,S)

**168-463 Advanced Art Metals: Jewelry 3 cr.**

Advanced techniques in jewelry; creative research and investigation of metals and jewelry media. May be repeated to a maximum of 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. May be repeated to a maximum of 9 cr. P: 168-371, 373, 375, or 377. (F,S)

**168-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**168-490 Contemporary Art: Post 1945 3 cr.**

Art movements from abstract expressionism to the present. P: 168-390, or 242-103 and 202. (S)

**168-495 Advanced Art Management 2 cr.**

Advanced study of exhibition development within the context of ongoing exhibitions in the Lawton Gallery or other campus galleries and exhibition spaces. Six credits repeatable. P: 168-395 and 396. (F,S)

**168-497 Gallery Management Internship 3-9 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 at least 4 cr of 168-396 with minimum grade of B. See Courses with Variable Content.

**168-497 Internship 3-12 cr.**

See Courses with Variable Content.

**168-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

**204 Biology****204-202, 203 Principles of Biology I, II 4, 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 for 203: 204-202. (F,S)

**204-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**204-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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; 225-108 or 212. (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. (F)

**204-304 Genetics Laboratory 1 cr.**

Basic techniques of genetic research; laboratory investigation and analysis of animal, plant, and human patterns of inheritance. P: cr or conc enroll in 204-303 or 478-310. (F)

**204-305 Biological Microtechnique 3 cr.**

Theory and practice in cytological and histological laboratory techniques, including fixation, staining, and sectioning of plant and animal tissues for microscope slides and mounts of cells for study of cell division, gamete formation and chromosome behavior. P: 204-203; 225-108 or 211. (J)

**204-307 Cell Biology 4 cr.**

Examines the molecular organization of major cellular organelles and their functions in plant and animal cells. P: 204-202; 225-212 or 108. (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 trip required. P: 204-203 or transfer course 204-003. (SE)

**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 or transfer course 204-003; 225-212. (SO)

**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. (S)

**204-317 Structure of Seed Plants 3 cr.**

Anatomy of seed plants, with special emphasis upon tissue differentiation and structure. P: 204-203. (FE)

**204-320 Field Botany 3 cr.**

Identification and natural history of plants indigenous to northeastern Wisconsin. Field trip required. P: 204-203 or transfer course 204-004. (F)

**204-340 Comparative Anatomy of Vertebrates 4 cr.**

Comparison of organ systems of vertebrates, emphasizing anatomy leading to human adaptations. Laboratory dissection of shark, mud puppy, and cat. P: 204-203 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. Required field trips visit some of the region's most interesting birding areas. P: 204-203 or transfer course 204-002. (SO)

**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 or transfer course 204-002. (SE)

**204-345 Animal Behavior 3 cr.**

Biology of animal behavior patterns; behavioral interactions of animals with their environment. P: 204-202 or 478-102. (S)

**204-346 Comparative Physiology 3 cr.**

Ways in which dissimilar organisms perform similar functions. Behavioral, physiological, and biochemical solutions to problems imposed on invertebrate and vertebrate animals by their environment. P: 204-203 and 225-212, or transfer course 204-002 and 225-212. (S)

**204-347 Developmental Biology 4 cr.**

Processes of development: growth, differentiation, and morphogenesis during animal development; gametogenesis, fertilization, cleavage, gastrulation, and organogenesis. Observation of development of slime molds, echinoderms, amphibians, and chicks, using slides and live organisms. P: 204-203 and 303, or transfer course 204-002 and 204-303. (S)

**204-349 Comparative Physiology Laboratory 1 cr.**

Exercises in physiology of animals from different phylogenetic levels; experience in methods and apparatus for making physiological measurements; conclusions from experimental results. P: 204-346.

**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. Field trip required. P: 204-302. (F)

**204-405 Microbial Physiology 3 cr.**

Study of microbial physiological and biochemical adaptations to temperature, oxygen, light, nutrients, and other environmental factors. Primary emphasis on the bacteria. P: 204-302 or 225-303 or 225-300. (SE)

**204-407 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 trip required. P: 204-303. (S)

**204-408 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). P: 204/225-407 or conc reg; Rec: 225-301 or 305. (S)

**204-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**204-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**204-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

Other courses that count toward a major or minor in Biology are:

- 362-302 Principles of Ecology 3 cr.
- 362-363 Plants and Forest Pathology 3 cr.
- 362-401 Stream Ecology 3 cr.
- 362-403 Limnology 3 cr.
- 362-475 Ecological Dynamics 4 cr.
- 478-318 Mammalian Reproduction 3 cr.
- 478-402 Human Physiology 3 cr.
- 478-404 Animal Physiology Laboratory 2 cr.
- 478-413 Neurophysiology 3 cr.

**216 Business Administration****General Courses****216-202 Business and Its Environment 3 cr.**

The major components of the business enterprise and its resources, competitive and regulatory environments; pricing, profit, finance planning, controls, ethics, environmental impact, social responsibility and other important concepts; environmental issues that challenge the business leader. (F)

**216-206 Law and the Individual 3 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. (F,S)

**216-215 Introduction to Business Statistics 3 cr.**

Applied parametric business statistics emphasizing application of commonly used statistical techniques to analyze and solve business-related problems; audit sampling, discrimination in hiring and lending policies, investment risk, market analysis, and quality control. Not open to students who have credit for 255-205 or 600-260. P: 600-101 or transfer course 600-004 or 2 yrs hs algebra and ACT math score of 19 or higher. (F,S)

**216-217 Quantitative Methods in Administration 3 cr.**

Applications of mathematics, including probability, statistics, linear programming, game theory and associated models, and probability tables to practical business decisions; translation of typical business problems to obtain and examine numerical answers. P: 216-215 or 600-260 or 255-205. (F,S)

**216-281 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**216-282 Personal Financial Planning 3 cr.**

Explores a variety of consumer problems such as budgeting, financing and investing; philosophies and values of consumers; psychology of consumer behavior; legal aspects of consumer rights. (F,S)

**216-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**216-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**216-303 January Abroad: Mexican Business Explorations 3 cr.**

Economic development issues and business practices in Mexico; the cultural, political, social, economic and historical context in which Mexican businesses operate. P: prior written cons inst; Rec: 298-203. (J)

**216-305, 306 Business Law I, II 3, 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 for 305: 48 earned and in-progress cr and min GPA of 2.5 or BUA, MGA, or grad classif; P for 306: 107/216-305. (F,S)

**216-372 Introduction to International Business 3 cr.**

Factors affecting business on an international level, including law, finance, marketing, management, political and social elements. P: jr st and 298-202. (F,S)

**216-395 Practicum in Financial Statement Analysis 3 cr.**

*See 107-395.*

**216-478 Senior Distinction in Business Administration 3 cr.**

*See Courses with Variable Content.*

**216-481 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**216-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**216-484 Senior Honors Project 3 cr.**

*See Courses with Variable Content.*

**216-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**216-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**Accounting and Quantitative Methods****216-317 Computer Techniques for Business Decisions 3 cr.**

Quantitative decision-making problems in business, including many classical business optimization problems, and new approaches to and computer applications in their solutions. P: 216-217 or 266-155 or 256. (S)

**216-451 Design of Computer-Assisted Systems 3 cr.**

Designing computer-assisted processes in organizations: feasibility analysis, design, implementation and evaluation; management information and decision support systems; fundamentals of sociotechnical systems design. P: 266-155 or 256; Rec: 216-382 or 820-415. (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. P: 216-215 or 600-260 or 255-205. (F,S)

**Marketing****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: 48 earned and in-progress cr and min cum GPA of 2.5 or BUA, MGA, or grad classif and 298-203. (F,S)

**216-325 Public Relations 3 cr.**

Internal and external relations of the business enterprise or governmental unit; attitudes and actions of the public and how they affect internal relations and conduct. P: 216-322. (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; importance of customer satisfaction; relationship of company philosophy to the sales force; fundamentals of communication processes. P: 216-322. (F)

**216-422 Retailing Management 3 cr.**

Operation of retail and wholesale enterprises: nature of retailing in the U.S.; basic requirements for successful store management; store location, building, fixtures, equipment, interior layout, organizational structure; personnel management; merchandise management; sales promotion and customer service; controls; coordination and management. P: 216-322. (S)

**216-423 Advertising 3 cr.**

Developing and executing advertising campaigns; how these campaigns fit into the total marketing mix; social, legal, and economic considerations and constraints involved in the advertising campaign planning process. P: 216-322.

**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, and 216-325 or 327 or 422 or 423 or 425 or 426 or 428. (F)

**216-425 Promotional Strategy 3 cr.**

Analysis of the environments in which persuasive efforts take place; applications of concepts from communication theory; promotional tools to communicate to various publics about products, services, ideas and institutions, as viewed from a promotion system perspective. P: 216-322. (F)

**216-426 Marketing Management 3 cr.**

Strategic interrelationships, development of analytical techniques and abilities, and decision making in marketing. P: sr st and 216-322; 216-325 or 327 or 422 or 424 or 425. (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. (S)

**216-429 Marketing Strategies for Nonbusiness Institutions 3 cr.**

Applications of marketing concepts, strategies and techniques to the problems faced by nonprofit institutions as they relate to various societal needs. P: 216-322. (J)

**Finance****216-343 Corporation Finance 3 cr.**

Organization for management of finance of business units; management of fixed and working capital; short- and long-range financial planning; money and capital markets; failure and reorganization. P: 48 earned and in-progress cr and min cum GPA of 2.5 or BUA, MGA, or grad classif and 107-300. (F,S)

**216-344 Real Estate Principles 3 cr.**

The nature of real estate ownership, the importance of land, contracts, title transfer, and mortgage instruments; real estate valuation, finance and investment; impact of taxation, marketing, insuring and laws affecting real estate. Not intended to prepare students for the real estate licensing examination. P: 216-343. (F)

**216-345 Principles of Risk Management 3 cr.**

Theory and principles of risk management; techniques and bases for decision-making in management of business and personal risks; introduction to the insurance function. P: 216-343. (S)

**216-347 Financial Markets and Institutions 3 cr.**

The role of financial markets and institutions in forming and managing capital resources; financial intermediation and disintermediation; financial organization, structure and investment management strategies of financial institutions such as commercial banks, savings and loans, credit unions and insurance companies. P: 216-343. (F,S)

**216-348 Practicum in Computer-Assisted Financial Analysis 3 cr.**

See 107-348.

**216-442 Principles of Investment 3 cr.**

Construction and management of investment portfolios; meeting investment needs of personal and institutional investors; reducing investment risks inherent in selection; inflation, depression and money market fluctuations. P: 216-343; 216-215 or 600-260 or 255-205. (F,S)

**216-445 International Financial Management 3 cr.**

Conceptual framework for financial decisions of multinational firms in international setting, impacts of international factors on managing resources; impacts of multicurrency, economic, and political environments. P: 216-343; Rec: 216-442. (S)

**216-446 Advanced Corporation Finance 3 cr.**

Long- and short-term financial decisions in environment of uncertainty; in-depth coverage of theories and practices of capital budgeting, cost of capital, dividend policies, and financing; mergers, acquisition, bankruptcy and alternative financing methods. Rec: 216-347 and 442. (F)

**216-447 Investment Analysis and Portfolio Management 3 cr.**

Fundamental and technical analysis within a framework of markets and uncertainty; modern portfolio theory and techniques for adjusting portfolio returns for risk; development of investment strategy within the environment facing investors or portfolio managers. P: 216-442. (F)

**216-449 Cases in Finance 3 cr.**

The efficient management of working capital; analysis and projection of financial data for planning, control, and dealing effectively with the financial dimensions of management decisions. P: 216-343; Rec: 216-442. (S)

**216-450 Bank Administration 3 cr.**

Commercial banking theories and practices from a financial management perspective: operations, administration and asset-liability management, including bank services, credit, loan, investment, profitability, cost control and capital budgeting and analysis; implications of deregulation of the financial industry. P: 216-347; Rec: 216-442. (F)

**Management****216-362 Human Resource Management 3 cr.**

Personnel management: manpower planning, selection, recruitment, training, motivation, fringe benefits, salary and wages, and labor relations. P: 216-382. (F,S)

**216-366 Collective Bargaining 3 cr.**

Techniques and problems in dealings between organized employees and their employers; industry-wide collective bargaining, constraints in the public service; administration of collective bargaining agreements. P: 216-362 and 107-300; Rec: 216-467. (F)

**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: 48 earned and in-progress cr and min cum GPA of 2.5 or BUA, MGA, or grad classif and 216-215 or 255-205 or 600-260. (F,S)

**216-384 Industrial Management 3 cr.**

The management of physical and human resources in the production and operation functions for producing goods or providing services in manufacturing and processing enterprises. P: 216-382. (S)

**216-386 Small Business Management 3 cr.**

Applications of management concepts in the development and operation of small businesses and business start-ups. P: 216-382. (F)

**216-389 Organizational Behavior 3 cr.**

Application of the behavioral sciences to business organization, including motivation theory, learning theory, leadership theory and small group behavior. P: 216-382. (F,S)

**216-462 Seminar in Personnel Management 3 cr.**

Analysis of personnel problems and issues and their translation into corporate personnel policies; urban, cultural and legal realities in personnel matters; decisions affecting the development and administration of personnel policies. P: 216-362. (S)

**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)

**216-482 Management Planning and Control 3 cr.**

Planning and control processes; completing the planning cycle through implementation, control and feedback; applications of organizational guidance, systems design, motivation; resource allocation, communication, control of variance and systems integration in project and process settings. P: 216-382. (F,S)

**216-485 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. P: 298-202 and 203. (S)

**216-487 Ethics and Social Issues in Business 3 cr.**

Examines the ethics in business decision-making and the appropriate social role of the business firm; discussion of ethical positions in a range of issues such as the corporate role in government, impact of businesses upon the environment, and business relations with consumers, employees and minority groups. P: 216-382. (J)

**216-488 Rational Decision-Making 3 cr.**

Quantitative and non-quantitative approaches to rational decision-making in organizations, including probability, decision analysis, gaming and risk assessment. P: 216-215 or 600-260 or 255-205. (F)

**216-489 Management and Organizational Theory 3 cr.**

Contemporary problems in business and public administration. Students undertake a major project paper relating a contemporary administrative problem to an existing or created business or administrative organization. P: 216-382. (F)

**225 Chemistry****225-101 Fundamentals of Chemistry 1 cr.**

Basic qualitative concepts and principles of chemistry demonstrated through experiments using household materials and equipment and applied to everyday living. Chemical and physical properties of substances; names, formulas and chemical equations; types of chemical reactions. (S)

**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 graduation credit not awarded for both 225-108 and either 225-211 or 225-212. P: 601-094 or 1 yr hs algebra and ACT math score of 18 or higher on enhanced ACT. (F,S)

**225-211, 212 Principles of Chemistry I, II 5, 5 cr.**

Atomic structure, chemical bonding, periodic table, thermochemistry, properties of gases, molecular structure and properties, solutions, chemical equations; thermodynamics, kinetics, chemical equilibrium, solubility, acid-base reactions, oxidation-reduction, nuclear reactions. P for 211: 600-101 or transfer course 600-004 or 2 yrs hs algebra and ACT math score of 25 or higher; Rec: 600-104 or equiv; full cr will not be awarded for both 225-211 and 108. P for 212: 225-211; full cr will not be awarded for both 225-212 and 108. (F,S)

**225-283X Selected Topics 1-4 cr.**

See Courses with Variable Content

**225-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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 225-302/303. P: 225-212 or 108. (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: cr or conc enroll in 225-300. (S)

**225-302, 303 Organic Chemistry I, II 3, 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. P for 302: 225-212; full cr will not be awarded for both 225-300 and 302 or 303; (F). P for 303: 225-302; full cr will not be awarded for both 225-303 and 300; (S)

**225-304, 305 Organic Chemistry Laboratory I, II 1, 1 cr.**

Basic and intermediate synthesis, basic and intermediate instrumental techniques in organic chemistry. P for 304: cr or conc enroll in 225-302; cr not granted for both 225-304 and 301; (F). P for 305: cr or conc enroll in 225-303; (S).

**225-311 Analytical Chemistry 4 cr.**

Theory and practice of chemical analysis. Gravimetric analysis techniques, computations, solubility products and applications. Volumetric analysis techniques; computations; acid-base, oxidation-reduction, precipitation and complexometric titrations. Introductory instrumental analysis, spectrophotometric and electroanalytical methods. P: 225-212. (S)

If you take 302 you  
will get no cr for 300

**225-320 Thermodynamics and Kinetics 3 cr.**

Temperature, heat and work, thermodynamic properties of gases, solids and solutions; homogeneous and heterogeneous equilibria; thermodynamics of electrochemical cells; statistical thermodynamics; calculation of thermodynamic properties; chemical kinetics. P: 225-212, 754-202, and 600-203. (F)

**225-321 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. P: 225-212, 754-202, and 600-203. (S)

**225-322 Thermodynamics and Kinetics Laboratory 1 cr.**

Laboratory course to accompany 225-320. P: cr or conc enroll in 225/754-320. (S)

**225-323 Structure of Matter Laboratory 1 cr.**

Laboratory course to accompany 225-321. P: cr or conc enroll in 225/754-321. (S)

**225-328 Physiological Chemistry 3 cr.**

See 694-328.

**225-330 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 trip required. Full credit will not be granted for both 225-330 and 225/694-328. P: 225-303 and 204-202, or 225-300 and 301 and 204-202. (F)

**225-331 Biochemistry Laboratory 1 cr.**

Laboratory course to accompany 225-330. P: cr or conc enroll in 225-330 or 225/694-328. (F)

**225-402 Advanced Organic Chemistry 3 cr.**

Physical organic approach to chemistry: reaction mechanisms, molecular orbital theory, conservation of orbital symmetry, aromaticity, stereochemistry, linear free energy relationships, isotopes effects, pericyclic reactions, photochemistry, natural products and advanced topics in molecular spectroscopy. P: 225-303; 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: cr or conc enroll in 225-402. (FO)

**225-407 Molecular Biology 3 cr.**

See 204-407.

**225-408 Molecular Biology Laboratory 1 cr.**

See 204-408.

**225-410 Inorganic Chemistry 3 cr.**

Survey of the elements including coordination and organo-metallic 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: cr or conc enroll in 225-321. (FE)

**225-411 Inorganic Chemistry Laboratory 1 cr.**

Laboratory course to accompany 225-410. P: cr or conc enroll in 225-410. (FE)

**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 trip required. P: 225-311 and cr or conc enroll in 225-321; Rec: 225-303. (F)

**225-417 Nuclear Physics and Radiochemistry 3 cr.**

Properties and reactions of atomic nuclei; application of the properties of radioactive nuclei to the solution of chemical, physical, biological and environmental problems. P: 225-212 and 754-202; Rec: 225-321. (SO)

**225-418 Nuclear Physics and Radiochemistry Laboratory 1 cr.**

Laboratory course to accompany 225-417. P: cr or conc enroll in 225/754-417; full cr will not be granted for both 225/754-418 and 362-380. (SO)

**225-420 Polymer Chemistry 3 cr.**

The synthesis, characterization, and properties of industrial polymers. P: cr or conc reg in 225-321.

**225-434 Environmental Chemistry 3 cr.**

See 362-434.

**225-435 Environmental Chemistry Laboratory 1 cr.**

See 362-435.

**225-478 Senior Distinction in Chemistry 3 cr.**

See *Courses with Variable Content*.

**225-483X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**225-497 Internships 3-12 cr.**

See *Courses with Variable Content*.

**225-498 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

## 242 Communication and the Arts

**242-102 History of the Visual Arts: Ancient to Medieval 3 cr.**

Survey of the visual arts: prehistoric to the late Gothic period. (F)

**242-103 History of the Visual Arts: Renaissance to French Revolution 3 cr.**

Survey of the visual arts: early Renaissance to the contemporary period. (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. (S)

**242-141 Introduction to the Performing Arts: Theatre and Music 3 cr.**

The literature and the artists in theatre and music from a historical perspective. Includes research prior to performances, performance attendance, artist interviews, and writing of critiques. Field trip required. (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. (S)

**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. (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. (F,S)

**242-210 Film and Society 3 cr.**

The ways in which films reflect and influence society. Examines films for their social content and the social milieu of their creation, the ways in which different cultures use films and the cross-cultural influences which occur. (F)

**242-221 Popular Music Since 1955 3 cr.**

Evolution of popular music since 1955 and its relationship to society, especially rock music in the 1960's and early 1970's, the period of greatest stylistic expansion and also the period in which the music was most intimately intertwined with its social milieu. (JE)

**242-225 American Indian Studies: Arts and Ceremonial Traditions 3 cr.**

The cultures of North American Indians through their visual arts and crafts, musical forms and ritual ceremony, and traditions; emphasizes the arts, music and ceremonies of woodland Indians of Wisconsin. (S)

**242-226 American Indian Studies: History and Verbal Traditions 3 cr.**

The cultures of North American Indians through their history, literature and languages; emphasizes the history, literature and languages of woodland Indians of Wisconsin. (F)

**242-231 Introduction to Graphic Communications 3 cr.**

Basic principles and potentials of visual communication: application of design concepts, exploring aspects of printing, preparation of mechanicals, type units of measurement, letterspacing, and type styles as communicative devices. (F)

**242-243, 244 Native American Cultures: Film and Performance I, II 3, 3 cr.**

"Popular" and stereotypical images of American Indian people in feature and documentary films and critical commentaries; group processes in creating and developing performance pieces derived from American Indian materials. Rec for 244: 242-243. (F, JE)

**242-261 Aesthetic Awareness: Foundations 3 cr.**

Focuses 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. (F,J,S)

**242-272 Women in the Visual or Performing Arts 3 cr.**

Studies artistic works by women in order to re-value their place in the history and development of the arts.

**242-281 Student-Led Courses 1-4 cr.**

See Courses with Variable Content.

**242-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**242-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**242-301 Communication and the Arts Projects in the Community 1-5 cr.**

Projects vary but emphasize service, creative, developmental and communications activities in the community. May be repeated for credit. (F,S)

**242-323 Language and Human Conflict 3 cr.**

Language as cause and consequence of racial, social, ethnic and national conflict; problems in dialect differences, language and nationalism, linguistic and cultural minorities, language and world view. P: 242-160; Rec: jr st. (F)

**242-329 Cross-Cultural Communication: Expressive Traditions 3 cr.**

Cultural conflict, influence and enrichment that arise when differing traditions of the arts come into contact. Variable content, including such areas as ethnomusicology, jazz history, American show music, Japanese and Indian art. Course may be repeated once with a different topic. (F,S)

**242-331, 332 Graphic Communications Studio I, II 3, 3 cr.**

Problem-solving techniques in graphic communication: expansion of visual, verbal, technical and management skills through group work and evaluation in larger-scale projects. P for 331: 242-231; Rec: 168-105, 106, or 107, or 168/246-243. P for 332: 242-331; Rec: 246-166 or 337. (F,S)

**242-361 Aesthetic Awareness: Interpretation 3 cr.**

The experience of the perceiver and the process of interpretation: development of the senses and altering of habits of perception through exploration of selected aesthetic objects and laboratory experimentation. P: 242-261. (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. (F)

**242-364 Aesthetic Awareness: Creation 3 cr.**

Explores the artist's aesthetic experience; how and why the artist works, the artist's relationship to society and audience, and the artist's concerns with creative process and end products. P: 242-261. (S)

**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. (F)

**242-375 Communication Skills: Language of Metaphor 3 cr.**

Examines metaphors and the metaphoric process and seeks to develop skills in creating and understanding metaphors, especially those that have become an unconscious part of our language and culture. Rec: General Education requirement in Arts and Humanities. (S)

**242-380 The Arts: London 3 cr.**

Group study of the arts in and near London: performing arts events, galleries, museum collections, neighborhood art groups; development of historical perspective as well as awareness of contemporary British artistic expression. P: prior written cons inst. (J)

**242-430 Information, Media and Society 3 cr.**

Analysis of the media as persuaders, informers, entertainers; public opinion, readership and audience studies; communication theory; legal aspects; critical examination of mass communication in the changing social environment. P:246-102 or 200. (S)

**242-432 Graphic Communications Workshop 3 cr.**

Applying concepts in graphic design, technology and management in projects for university or nonprofit groups from concept to finished product: design, writing copy, contacting printers, interacting with clients, etc. Repeatable to a maximum of nine credits; only three may be applied to a minor in Communication and the Arts. P: 242-332; Rec: 246-343 or 460 or 216-322 or 425. (F,S)

**242-435 Practicum in Integrated Publishing 3 cr.**

Comprehensive experience in designing and producing a magazine-format publication from early design stages through to the finished printed project. Combines conventional design skills developed in the graphic communications studios and use of desktop publishing technology. Nine cr repeatable. P: 242-432 and jr st; Rec: 246-460.

**242-436 Environmental Design Studio I 3 cr.**

See 950-436.

**242-437 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. P: 242/950-436 and 950-210. (S)

**242-438 Environmental Design Studio III 3 cr.**

See 950-438.

**242-439 Environmental Design Studio IV 3 cr.**

Each student proposes, designs and executes a design/research project on an elected topic. Individual projects are acceptable in some instances; projects by design teams are encouraged. P: 242/950-437. (S)

**242-450 The Construction of Public Images 3 cr.**

Develops skill in reading the imagery of mass media and public environments: image problems in news, promotion, entertainment, photography, tourism, sports, landscapes and other realms. P: sr st. (F)

**242-474 Aesthetic Awareness, Traditional Art Styles 3 cr.**

Interpretation of the arts based upon stylistic analogy and the assumption that a change in cultural style signals a change in the style of human consciousness itself; comparative study of artists, writers, architects and thinkers from the Renaissance to the modern periods. (F)

**242-475 Aesthetic Awareness: Avant-garde Styles 3 cr.**

Comparative study of common stylistic elements operating in different forms in the work of avant-garde artists, composers, playwrights and novelists; emphasizes the nature of innovative consciousness. (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: 875-241 or 552-206 or 242-272 or 242-364 or jr st or cons inst.

**242-481 Student-Led Courses 1-4 cr.**

See Courses with Variable Content.

**242-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**242-484 Senior Honors Project 3 cr.**

See Courses with Variable Content.

**242-497 Internship in Graphic Communications 3-12 cr.**

Instruction and experience in a professional graphics environment, where students work in any area of the field (management, design, technical processes) under professional and faculty supervision. No more than three credits may be used to meet requirements for a major or minor. (F,S)

**242-497 Internship in Communication and the Arts 3-12 cr.**

See Courses with Variable Content.

**242-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

## 246 Communication Processes

**246-100 Writing Skills Laboratory 4 cr.**

A basic course in college-level expository writing, including conventional forms of argumentation, comparison/contrast, and research papers.

**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. (F)

**246-133 Fundamentals of Public Address 3 cr.**

Examination of the principles of oral message preparation and presentation. Students will prepare and present actual public communications. (F,J,S)

**246-161 English as a Second Language: Reading and Lecture Comprehension 3 cr.**

Development of academic competence in reading and listening skills to enable nonnative speakers of English to function successfully at the college level in an American university; includes reading, lecture notes, test-taking, and library skills. (Can not be taken on P-NC basis.) P: ESL placement test; conc enroll in 246-163. (F,S)

**246-163, 164 English as a Second Language: Expository Writing I, II 3, 3 cr.**

Development of academic competence in writing skills to enable nonnative 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. (Can not be taken on P-NC basis.) P for 163: ESL placement test; conc enroll in 246-161. P for 164: ESL placement test or 246-163; Rec: 246-161 or equiv; fulfills Writing Skills requirement for nonnative speakers of English. (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-concept in communication behavior; significance of information reception and evaluation in the effectiveness of communication. (F,S)

**246-200 Introduction to Communication Processes 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. Rec: one previous communications course. (F)

**246-201 Human Information Processing 3 cr.**

The study of human cognition from an information processing perspective. Examines the processes of sensation, perception, memory, thinking, language, and problem solving with special attention to their roles in communications. P: one previous 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: completion of UWGB writing requirement; Rec: 552-105. (F,S)

**246-205 Intercultural Communication 3 cr.**

Provides a conceptual framework for understanding and coping with the cultural differences confronted by international students in the U.S. and by American students considering study, travel, or work abroad or who would like to be acquainted with the viewpoints of international students.

**246-243 Introduction to Photography 3 cr.**

The creative process in photography is studied to develop visual perception through active participation in discussions and photographic exercises, including analysis of student work. 35mm camera required. Rec: one previous 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: reporting, feature writing or photojournalism. Repeatable for credit. P: completion of UWGB writing requirement and prior written cons inst; Rec: 246-203 or 243. (F,S)

**246-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**246-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**246-303 Feature Writing 3 cr.**

Writing feature articles for magazines and newspapers; emphasizes information gathering, professional standards, and effective style. P: 246-203 or 552-105. (S)

**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, programming 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 medium 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.**

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. P: 246-200 or 520-210. (S)



**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. (S)

**246-320 History of the English Language 3 cr.**

The origins, development, and cultural background of the English language; evolution of pronunciation and spelling, grammar, vocabulary, meaning and usage in Old, Middle, and Modern English, including contemporary English dialects. Rec: 242-160. (FO)

**246-321 Sociolinguistics 3 cr.**

Communication in social groups and applications of linguistic principles to the study of social and regional dialects, stylistic variation, bilingualism and language contact, nonverbal behavior, and language in culture. Rec: 242-160. (FE)

**246-322 Modern Linguistics 3 cr.**

Structure and system in language, with attention to modern English and including principles of structural, computational, and generative-transformational linguistics. 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. (S)

**246-326 Modern Semantics 3 cr.**

A study of meaning in 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. Rec: 242-160. (SO)

**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 inferring the rules of a second language, and strategies for responding to them. P: 242-160. (SE)

**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. (SE)

**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 or 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 or 200 or 201; Rec: 246-166. (F)

**246-337 Small Group Communication 3 cr.**

The role communication plays in small group processes; focus on development of the special communication skills needed in the small group setting. P: 246-133 or 200 or 201; Rec: 246-166. (SO)

**246-343 Photography II 3 cr.**

Black and white photography and darkroom printing techniques. Camera required. P: 246/168-243. (FE,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. P: 246/168-343. (F)

**246-345 Designing Multiple Media Applications of Photography 3 cr.**

Emphasis upon programmed multi-image designs bringing together photography, graphics and sound. 35mm camera required. P: 246/168-343. (JO)

**246-346 Photographic Design for Print Media 3 cr.**

Investigation of photographic design and craft for print media. Camera required. P: 246/168-343.

**246-353 Practicum in Print Journalism II 1-3 cr.**

Supervised experience on the staff of the student newspaper, providing for the development of advanced skills in some facet of newspaper operation: reporting, feature writing, photojournalism or editing. Repeatable for credit. P: 246-203 or 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 in communications courses. (SE)

**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: completion of UWGB writing requirement and Natural Science general education requirement; Rec: 246-203 or 552-105. (S)

**246-403 Advanced Reporting 3 cr.**

In-depth, localized reporting of contemporary affairs; emphasis on research skills, writing styles, and the values at stake in the treatment of each story. Student work is designed for newspaper publication or radio broadcast. P: 246-203; Rec: 246-306 or 353. (J)

**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, 35mm camera required. P: 246/168-344; 9 cr repeatable. (S)

**246-444 Time Duration Visual Media 3 cr.**

An investigation of visual media requiring the passage of time to be perceived and which enable the producer direct control over that perception. Includes direct experience in production. Camera required. P: 246/168-343. (FO)

**246-445 Human Communication Theory 3 cr.**

Integration of a variety of theories to promote sensitivity to and understanding of the complexity of human communication; examines the construction of various communication theories, contexts, and processes in communication. P: 9 cr in upper-level communications courses.

**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 publications professionals; strategies for organizing a publications effort; planning, producing and evaluating publications; impacts of technology. P: jr st and prior coursework in communications; Rec: 246-203 or 243 or 242-231. (SO)

**246-478 Senior Distinction in Communication Processes**

*See Courses with Variable Content.*

**246-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**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)

**246-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**246-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

## 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. P: 600-101 or 2 yrs of hs algebra and new enhanced ACT score of 19 or higher; not open to students who have cr for 600-260. (F)

### 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: 255-205 or 600-260. (S)

### 255-302 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. (J)

## 266 Computer Science

### 266-155 Microcomputers and End-User Applications 3 cr.

Understanding of computer concepts, systems, software and programming techniques; use of existing packages to gather, display and interpret information; instruction in BASIC. P: 600-101 or transfer course 600-004 or 2 years hs algebra and enhanced ACT math score of 18 or higher. (F,J,S)

### 266-255 FORTRAN: A Scientific Programming Language 2 cr.

Introduction to FORTRAN programming and the design of elementary algorithms. Includes integer, real number, and alphanumeric processing; one-, two-, and three-dimensional arrays; FORMATS; functions; subprograms. Full credit will not be given for both this course and 325-251. P: 600-202.

### 266-256, 257 Introduction to Computer Science I, II 4, 4 cr.

Basic concepts of computer science, including problem-solving, algorithmic processes, programming in a higher-level language, style and expression, debugging and testing, aspects of string processing, recursion, internal search/sort methods, simple data structure, machine organization, assembly language and algorithm analysis. Full credit will not be given for both these courses and 325-251. P for 256: 600-101 or transfer course 600-004 or 2 yrs hs algebra and enhanced ACT math score of 25 or higher; Rec: 266-155 or equivalent. P for 257: 266-256. (F,S)

### 266-270 C Programming Language 2 cr.

C language elements and syntax including data types, terminal and file I/O, control structures, functions, pointers, arrays, structures, unions, and strings. P: 266-257. (J)

### 266-271 COBOL Programming Language 2 cr.

COBOL programming language: record formats, file I/O, arithmetic, control break processing, arrays, sorting, searching, and random access files. P: 266-256; Rec: 255-257. (S)

### 266-272 Object-Oriented Programming in C++ 2 cr.

Introduces C++ language; students will design programs using the object-oriented paradigm. P: 266-257. (F)

### 266-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

### 266-298 Independent Study 1-4 cr.

See Courses with Variable Content.

### 266-350 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. P: 600-203; 600-320 or conc enroll; Rec: programming ability. (SE)

### 266-351 Data Structures, Storage and Retrieval 3 cr.

Concepts involved in storage, retrieval and processing of data, including arrays, stacks, queues, linked lists, trees and networks; design of efficient algorithms for problems such as searching, sorting, evaluation of arithmetic expressions, construction of symbol tables and memory management. P: 266-257 and 600-242. (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: 266-257. (S)

### 266-353 Computer Organization and Programming 3 cr.

Binary-based number systems, data representations, machine instruction formats, assembly language programming and related systems software. Also includes microprogrammed logic, logic circuits and Boolean algebra. P: 266-257 and 600-242. (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: 266-257 and 600-242. (F)

### 266-358 Data Communication and Computer Networks 3 cr.

Data communication and computer networks: transmission media, analog and digital signals, modulation, network topologies, protocols, standards, security mechanisms. P: 266-257 and 600-242.

### 266-450 Theory of Algorithms 3 cr.

Design, analysis and comparison of algorithms; divide and conquer techniques, greedy method, dynamic programming and graph searching. Applications to profit maximization with constraints, graph coloring, traveling salesman problem and others. P: 600-203 and 266-351. (FE)

### 266-451 Database Management Systems 3 cr.

Network, relational and hierarchical databases; use of a data manipulation language and structured query language to query a student-created database; also includes access methods, security, integrity rules, physical organization, design criteria, normal forms and entity-relationship modelling. P: 266-351 and COBOL ability. (F)

### 266-452 Operating Systems 3 cr.

Operating systems, techniques and philosophies behind management of computing resources, including memory management, process management, auxiliary storage management, study of some popular current operating systems. P: 266-257; Rec: 266-351 and 353. (S)

### 266-454 Artificial Intelligence 3 cr.

Methods used to improve the performance of computers in those skills which measure "intelligence": recognition of analogies, ability to understand language, interpretation of visual images, problem solution and manipulation of machinery; use of a list-processing language (LISP). P: 266-351; Rec: 266-357. (FO)

### 266-455 Microprocessors and Digital Electronics 3 cr.

Digital electronics, microcomputer interfacing and microcomputer programming. P: background or prior course experience in electronics. (F)

### 266-456 Advanced Topics in Microcomputing 3 cr.

Hardware and software techniques for interfacing instruments and peripheral devices to a microcomputer, development and use of system software and advanced programming of microcomputer systems. P: 266-455. (JE)

### 266-457 Compiler Theory 3 cr.

Software concepts, focused primarily on the theory of compilers, including formal language definition, dictionaries, symbol tables, text scanning, parsing, arithmetic expressions and Polish strings. P: 266-353 and 357. (SO)

**266-478 Senior Distinction in Computer Science 3 cr.***See Courses with Variable Content.***266-483X Selected Topics 1-4 cr.***See Courses with Variable Content.***266-497 Internship 3-12 cr.***See Courses with Variable Content.***266-498 Independent Study 1-4 cr.***See Courses with Variable Content.***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 trip required. (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.

**296-202 Physical Geology 4 cr.**

Description and analysis of the geological processes that shape the earth's major internal and external features. Origins, properties and uses of the earth's rock and mineral resources. Students will not receive credit for both 296-202 and 296-102. Field trip required. (F,S)

**296-203 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. P: 296-202. (S)

**296-204 Geologic Evolution of the Earth Laboratory 1 cr.**

Practical application of geologic principles and techniques to interpretation of earth history. Field trips. P: cr or conc enroll in 296-203. (S)

**296-222 The Ocean of Air: Weather and Climate 3 cr.**

See 834-222. (F,S)

**296-283X Selected Topics 1-4 cr.***See Courses with Variable Content.***296-298 Independent Study 1-4 cr.***See Courses with Variable Content.***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. P: 296-202. (FO)

**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 trip required. P: 296-202 and 203. (SE)

**296-432 Hydrogeology 3 cr.**

See 362-432.

**296-470 The Glacial Environment and Chronology 3 cr.**

Understanding the extremes in environmental behavior which characterize Pleistocene time. Principles of glaciology and the impact of glaciation on the landscape. Field trip. P: 296-202; Rec: 296-203. (SO)

**296-483X Selected Topics 1-4 cr.***See Courses with Variable Content.***296-492 Special Topics in Earth Science 1-3 cr.**

Topics not covered by regular courses, such as mineralogy-petrology, crustal movements, geologic field methods; geology of Wisconsin, and others. May be repeated with different topics. P: 296-203, 204.

**296-497 Internship 3-12 cr.***See Courses with Variable Content.***296-498 Independent Study 1-4 cr.***See Courses with Variable Content.*

Other courses for upper-level earth science credit include:

**Land and Soil Resources**

362-303 Conservation of Natural Resources

362-320 Soil Environment

362-321 Soil Environment Laboratory

362-342 Environmental Geology

362-421 Soils of Wisconsin Field Trip

362-454 Remote Sensing by Satellite

362-460 Resource Management Strategy

416-351 Elements of Cartography

416-353 Air Photo Interpretation

416-451 Computer Cartography

834-356 Environmental Impact Analysis

008-761 Global Environmental Monitoring

009-741 Land Use, Institutions and Policy

**Water Resources**

362-331 Oceanography

362-335 Water and Waste Water Treatment

362-403 Limnology

362-434 Water Chemistry

008-759 Coastal Zone Management

**Meteorology-Climatology**

362-350 Meteorology

362-351 Synoptic Meteorology Laboratory

416-325 Regional Climatology

008-776 Bioclimatology

**Geology**

362-342 Environmental Geology

**298 Economics****298-202 Macro Economic Analysis 3 cr.**

Introduction to the behavior of our economy in the aggregate, focusing upon the process by which the economy achieves a certain level of output and employment. (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: 298-202. (F,S)

**298-206 Macro Economics Laboratory 1 cr.**

Laboratory course to accompany 298-202. P: conc enroll in 298-202. (F,S)

**298-207 Micro Economics Laboratory 1 cr.**

Laboratory course to accompany 298-203. P: conc enroll in 298-203. (F,S)

**298-283X Selected Topics 1-4 cr.***See Courses with Variable Content.***298-298 Independent Study 1-4 cr.***See Courses with Variable Content.***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)

**298-306 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. P: 298-203. (F)

**298-307 Sources of Contemporary Economic Concepts 3 cr.**

Development of contemporary economic thought, drawing upon contributions 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)

**298-330 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 Resource Economics Analysis 3 cr.**

Applications of tools and concepts in current economic decision making, with special emphasis upon common property resources management. P: jr st and 298-202 and 203. (SE)

**298-403 International Trade 3 cr.**

Theory and concepts of international trade and finance; contemporary conditions and problems in international economic relations. P: jr st and 298-202 and 203. (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: jr st and 298-202. (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)

**298-407 Introduction to Econometrics 3 cr.**

Mathematical concepts and techniques in analyzing economic phenomena; statistical methods to estimate equations describing economic events. P: 298-203, 600-201 or 202; 255-205 or 600-260. (S)

**298-420 Workshop in Economic Education 2-3 cr.**

Provides background on selected current economic topics and concepts; examines new print and nonprint instructional materials and curriculum guides in economic education; supports development of learning activities appropriate to students' instructional responsibilities. P: completion of at least one professional education methods course and/or teaching experience and at least one social science course.

**298-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**298-485 Managerial Economics 3 cr.**

Application of the basic theoretical tools of micro- and macroeconomic analysis to the problems of business management, such as demand, production, costs, pricing, and forecasting. P: 298-202 and 203. (S)

**298-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**298-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**302 Education****302-202 Changes in American Education 3 cr.**

Explores education as a lifelong learning processes, 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.

**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: 362-102 or 302 or conc enroll. (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 tradebooks, textbooks and other instructional materials for children and adolescents; detecting negative images and building positive images. (J)

**302-250 Field Experience in Education 2 cr.**

Direct field experience working with children in educational settings; biweekly campus classes and 30 hours direct observation, participation and interviews. Must be completed no later than first semester after admission to teacher certification. P: soph st. (F,S)

**302-280 Instructional Technologies: Evaluation, Production and Application 3 cr.**

Computer and audio-visual materials designed, developed, and promoted for classroom use. Students examine and use resources, explore professional literature, and evaluate processes and products. P: admission to education program; Rec: 302-300. (F,S)

**302-281 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**302-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**302-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**302-300 Introduction to Education and Teaching 3 cr.**

The technical skills of teaching, application of learning theory, instructional planning, microteaching and evaluation of teaching effectiveness; school observation and participation in instructional activities (2 1/2 hours per week). Must be completed before methods courses. P: admission to teacher education. (F,S)

**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: admission to teacher education and 302-300. (F,S)

**302-303 Teaching Art in the Elementary and Middle Schools 2 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: admission to teacher education and 302-300. (F,S)

**302-304 Teaching Music for Elementary and Middle Teachers 2 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: admission to teacher education and 302-300; 670-100 or conc enroll. (F,S)

**302-306 Teaching Health and Physical Education in Elementary and 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: admission to teacher education and 302-200. (F,S)

**302-307 Teaching Reading in the Elementary School 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: admission to teacher education and 302-300. (F,S)

**302-308 Children's Literature in the Elementary School 3 cr.**

Effective children's literature programs: analyzing children's books; developing instructional units and independent programs to foster positive attitudes toward reading; books for personal development, for developing attitudes about social issues; criteria for evaluating content, methods and effectiveness. P: jr st. (F)

**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: admission to teacher education and 302-300. (F,S)

**302-310 Teaching Communication Arts in 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 communications arts classroom. P: admission to teacher education and 302-300. (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: admission to teacher education and 302-300. (FO)

**302-312 Teaching Social Studies in 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: admission to teacher education and 302-300. (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: admission to teacher education and 302-300. (F)

**302-314 Teaching Science in Middle and Secondary Schools 3 cr.**

The nature of middle and high school science curricula, recent innovations in science teaching, classroom teaching techniques, and evaluation. P: admission to teacher education and 302-300. (F)

**302-315 Teaching English as a Second Language 3 cr.**

Basic methods of teaching English to non-native speakers and the underlying theories from linguistics, psychology, education and sociolinguistics; development and evaluation of lessons for the ESL classroom. P: admission to teacher education; Rec: 302-300. (FO)

**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: admission to teacher education; Rec: 302-250 and 300. (SO)

**302-317 Teaching Instrumental and Choral Music 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: admission to teacher education; Rec: 302-300. (F)

**302-318 Reading, Thinking, and Studying in Middle and Secondary Schools 3 cr.**

Developmental reading, comprehension and retention, vocabulary development, motivation, reading rate and flexibility; diverse reading abilities and interests; development of appropriate study and learning techniques for reading in the content areas. P: admission to teacher education and 302-300. (F)

**302-319 Adolescent Literature in Middle and Secondary School Reading 3 cr.**

Design and content of effective adolescent literature programs; analysis and evaluation of adolescent literature; current practices in literacy curricula; adolescent literature and personal development; literature and social issues. P: jr st. (SE)

**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: jr st; 820-102 or 481-210; Rec: 302-300 or course in education. (F,S)

**302-324 Teaching Mathematics in 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: admission to teacher education and 302-300; 600-281 and 282 with grade of C or better or conc reg in 282. (F,S)

**302-325 Teaching Science in Elementary and Middle Schools 3 cr.**

Teaching methods, materials, evaluation techniques, curriculum development, implementation and evaluation in elementary and middle school science; teaching science concepts, processes and problem-solving; the nature of science; interactions of science, technology and society; applications of computers in science education. P: admission to teacher education and 302-300. (F,S)

**302-334 Teaching General Music in the Elementary School 3 cr.**

Philosophical and theoretical foundations of music education. Children's musical needs; curriculum development; traditional and contemporary methods and materials. P: admission to teacher education and 670-252 and 302-300. (SE)

**302-335 Teaching General Music in the Secondary School 2 cr.**

Musical needs of the adolescent; insight into secondary general music in context of contemporary education and the economy; materials appropriate for students with varied educational needs. Focus is on teaching music literacy emphasizing functional music reading, a perspective of music throughout history, and materials marketed by the music industry. P: admission to teacher education; Rec: 302-300.

**302-351 Field Project in Educational 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: admission to teacher education and 302-250; must be taken on P-NC basis. (F,J,S)

**302-352 Social and Family Influences on Early Development and Training 3 cr.**

An ecological systems approach to social and family influences affecting success or failure in school. Child development and education risk theories, research, and practitioner accounts. Prevention and intervention programs for children (prenatal-8 years) and families at-risk. P: 481-210 or 820-102; Rec: 481-331, 332, or 900-308; 302-300. (F,S)

**302-400 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

education issues considered in the context of the history of education in America and in comparison to other countries. P: admission to teacher education and 302-300; Rec: completion of at least one education methods course. (F)

**302-401 Student Teaching in the Middle School 2-15 cr.**

Supervised student teaching or internships in the middle school. Offered on a pass/no credit basis only. P: assignment for student teaching approved by director of student teaching. (F,J,S)

**302-402 Student Teaching in the Elementary School 2-15 cr.**

Supervised student teaching or internships in the elementary school. Offered on a pass/no credit basis only. P: assignment for student teaching approved by director of student teaching. (F,J,S)

**302-403 Student Teaching in the Secondary School 2-15 cr.**

Supervised student teaching or internships in the secondary school. Offered on a pass/no credit basis only. P: assignment for student teaching approved by director of student teaching. (F,J,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 st. (S)

**302-410 Introduction to the Education of Exceptional Children 3 cr.**

Survey of the kinds of exceptionalities, their needs and some methods for meeting them; recognition and understanding of exceptional children and unique subtleties that deserve specific attention. P: admission to teacher education; Rec: 302-300. (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: teaching experience or admittance to teacher education program.

**302-420 Workshop in Economics Education 2-3 cr.**

See 298-420.

**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: 302-300 or 481-331. (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: admission to teacher education and 302-300. (F,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: 481-333 and 334 and 431, or 302-322. (F)

**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; considers program priorities and planning in the context of developmental levels and the variety of populations to be served. P: 302/481-441. (S)

**302-445 Early Childhood Center Administration and Community Resource Management 3 cr.**

Overview of community early childhood programs; governmental licensing and controlling agencies; program organization and administration (funding, staffing, accounting); utilizing family and community resources. P: jr st. (F)

**302-451 Field Experience in Environmental Education 1-12 cr.**

Prestructured or individualized study in environmental education at environmental centers such as Trees for Tomorrow, MacKenzie Environmental Center, etc. P: advance arrangement for field experience approved by education chair. (F,J,S)

**302-462 The Adult Learner 3 cr.**

Various physiological, psychological and sociological factors relevant to adult development and their implications for learning; key elements in the teaching-learning process for adults; survey of research in adult learning. P: jr st or relevant professional experience. (F)

**302-481 Student-Led Courses 1-4 cr.**

See Courses with Variable Content.

**302-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**302-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

## 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 transfer course 600-004 or 2 yrs hs algebra and enhanced ACT math score of 25 or higher. (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)

**325-210 Introduction to Design Techniques 3 cr.**

Overview of the engineering design process from problem definition to detailed designs; includes ideation techniques, modeling, documentation, scheduling, economic analyses and professional ethics. Rec: 325-105.

**325-234 Linear Systems Analysis 4 cr.**

Mathematical techniques for linear systems. Solutions of ordinary differential equations by classical, transform, and state variable techniques. Elementary aspects of linear algebra. Applications in electrical, fluid, mechanical and thermal systems. P: 600-203.

**325-251 Programming for Science and Engineering 3 cr.**

Design and debugging of computer programs using FORTRAN and PASCAL. Programming and applications to different fields of science and engineering. Full credit for 266-255 or 266-256 and this course will not be given. P: 600-202; 266-255 or 1 semester hs programming.

**325-313 Mechanics I 3 cr.**

Elementary vector operations, resultant of two- and three-dimensional force systems, centroids, 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)

**325-316 Strength of Materials 4 cr.**

Stress and strain, torsion, bending of beams, shearing stresses in beams, compound stresses, principal stresses, deflection of beams, statically indeterminate members, columns. Lecture and laboratory. P: 325-313. (S)

See courses in physics, chemistry, mathematics and related areas for complete listings for engineering.

## 362 Environmental Science

### 362-102 Introduction to Environmental Science 3 cr.

Examines the interrelationships between people and their biophysical environment, including the atmosphere, water, rocks and soil, and other living organisms. The scientific analysis of nature and the social and political issues of natural resource use. (F,S)

### 362-125 Introduction to Horticulture 3 cr.

Techniques of intensive plant culture. Biological characteristics of horticultural plants, identification of home and commercial plant species, plant propagation, physiology and development. Local field trip.

### 362-141 Astronomy 3 cr.

Study of the solar system, stars, galaxies and universe. Field trip required.

### 362-142 COSMOS, Societal Implications of the Study 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. Based on the television series *Cosmos*, produced by Dr. Carl Sagan. P: 362-141 or 754-103 or 201 or 225-211. (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. (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 362-102 or 141 or 225-108 or 211 or 296-202. (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. (F,S)

### 362-281 Student-Led Courses 1-4 cr.

See *Courses with Variable Content*.

### 362-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

### 362-284 Land Conservation and Husbandry 3 cr.

Concepts of and attitudes concerning land and husbandry; historical aspects of our relationship with land; agricultural development in the U.S.; land ethics and land economics; conflicting demands on the land; state and national land use policies and land for the future. Field trip required. (F)

### 362-286 Forest Vegetation of Wisconsin 3 cr.

Historical and contemporary modification of Wisconsin forest vegetation; biology of individual species and community dynamics; current management practices. P: 362-102 or 204-202. (F)

### 362-298 Independent Study 1-4 cr.

See *Courses with Variable Content*.

### 362-302 Principles of Ecology 3 cr.

Biological principles governing interactions of plants and animals in their physical and biotic environments. Succession, productivity, energy flows and nutrient cycling in ecosystems. Physiological and behavioral adaptations of individuals to their environment; impact of people upon ecosystems and concepts underlying management strategies. Field trip required. P: 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. (F,S)

### 362-307 Ecology of Fire 2 cr.

The use of fire to modify vegetation by native peoples in the past and by contemporary landscape managers in grasslands, chaparral, southern pine forests and northern aspen forests; causes and control of wildfires; case histories of prescribed burning. (JE)

### 362-309 Ecology and Management of Endangered Species 2 cr.

The population dynamics, niche relations and functional role of species in ecosystems, including endangered species; mechanisms of past and present extinctions; management tools for species preservation. P: 204-203. (JO)

### 362-315 Classical Mechanics 3 cr.

See 754-315.

### 362-318 Industrial Pollution Control Techniques 2 cr.

Air and water pollution control methods; nature of major existing pollutants; present government regulations; discussion of major types of industries—general manufacturing process, how and where major pollution arises, and techniques for emission control. P: 225-212. (FO)

### 362-319 Industrial Pollution Control Field Trips 1 cr.

Field course to accompany 362-318; field trips are scheduled to a variety of local industries, including a paper mill, a foundry, the Metropolitan Sewerage District plant, etc. P: conc reg in 362-318. (FO)

### 362-320 The Soil Environment 3 cr.

The physical, chemical and biological properties of soil; formation, classification and distribution of major soil orders; influence of soil on agricultural, engineering, urban and water systems. Field trip. P: 225-108 or 225-212; Rec: 296-202. (F)

### 362-321 The Soil Environment Laboratory 1 cr.

Field and laboratory study of physical, chemical and biological properties of soils. Rec: 362-284 or cr or conc enroll in 362-320. (F)

### 362-330 Hydrology 3 cr.

Qualitative study of the principal elements of the water cycle, including precipitation, runoff, infiltration, evapotranspiration and ground water; applications to water resource projects such as low flow augmentation, flow reregulation, irrigation, public and industrial water supply and flood control. P: 296-202. (F)

### 362-331 Oceanography 3 cr.

Nature and extent of the marine environment, the physical and chemical properties of sea water, mass movements of oceanic water, marine geology, plant and animal life in the sea, environmental problems associated with exploitation of the marine environment and the Great Lakes. Field trip. P: 296-202. (SE)

### 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. (SE)

### 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. P: 296-202. (F)

### 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: 600-202; Rec: 754-202. (FO)

**362-351 Synoptic Meteorology Laboratory 1 cr.**

Applications of meteorological principles to actual synoptic-scale weather situations. Techniques of weather analysis and forecasting. P: 204-203 or conc enroll in 362-350. (FO)

**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. P: 204-203 or transfer course 204-003. (F)

**362-366 Integrated Pest Management 3 cr.**

The management of pest plant and animal populations using an integrated combination of control methods emphasizing maximum dependency upon natural regulators of populations; various control methods; obstacles and incentives in the future for integrated pest management. P: 204-203. (SO)

**362-380 Radiobiology 3 cr.**

Introduction to radionuclides (C-14, P-32, etc.) and sources of ionizing radiation in biology, medicine and environmental sciences. Experimental methods used in the life sciences are emphasized, including tracers in biology, radiation biology, nuclear medicine and radioecology. Provides the background for licensure to use radionuclides in most tracer experiments. Credit is not given for both this and 225/754-418. P: 225-211 and 204-202.

**362-381 January in Mexico: Natural Science 3 cr.**

Introduces the natural resources of the Yucatan peninsula with emphasis on their use and abuse. Makes comparisons with Wisconsin, including cultural, political, social, economic, and historical contexts. Field trips, special projects, and local interviews. P: 362-102 or 296-202. (J)

**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: 266-155 or 600-260. (S)

**362-392 January in Italy and Greece: Foundations of Western Science, Mathematics, and Culture 3 cr.**

Students visit Athens and Rome, and Heracleion in Crete and study these historical sites where the foundations of western science, mathematics, political democracy, and culture were laid by Crete's Minoan civilization. P: prior written cons inst. (J)

**362-401 Stream Ecology 3 cr.**

Structure and function of stream ecosystems. Functional relationships of feeding groups, nutrient spiralling and organic matter processing as responses to stream morphology, stream order and watershed conditions. Field sampling of northeastern Wisconsin streams. P: 204-203 or transfer course 204-002; field trip required. (FE)

**362-403 Limnology 3 cr.**

Physical, chemical and biological interactions in lakes and streams as expressed in the nature and dynamics of aquatic communities; laboratory and field techniques used in characterizing aquatic environments. Field trip required. P: 204-203 and 225-211, or transfer course 204-002 and 225-211. (FO)

**362-415 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. P: 754-104 or 202. (SO)

**362-421 Soils 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. P: 296-202. (F)

**362-432 Hydrogeology 3 cr.**

Geological and physical principles governing ground water flow; aquifer properties, chemical processes, equation of flow, well hydraulics, and environmental concerns. P: 296-202 and 362-330; Rec: 600-202.

**362-434 Environmental Chemistry 3 cr.**

Physical, chemical, and biological processes affecting the composition of air and water. Chemical reactions in polluted and unpolluted environments; dispersal processes and methods of control for various pollutants. P: 225-311; 225-300 or 302/303. (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 wet chemical methods. P: 225/362-434 or conc enroll. (F)

**362-454 Remote Sensing of the Environment 3 cr.**

Large area, small scale analysis 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.**

Applications of systems analysis principles to designing resource management systems and developing strategies for maintaining optimum environmental utilities. Decision models and the role of economic systems in resource management. P: sr st; Rec: background in economics and conservation. (S)

**362-466 Vegetation Management 3 cr.**

Analysis of current practices in managing U.S. vegetation, including establishment, maintenance, control and conversion. Evaluation of various tools and practices in terms of their effectiveness, economic cost and environmental impact. P: 204-203. (F)

**362-475 Ecological Dynamics 4 cr.**

Advanced exploration of key principles of ecology. Theoretical concepts are linked with practical applications in the fields of evolutionary ecology, population dynamics, community ecology and ecosystems ecology. Field trips. P: 600-260 and 362-302; Rec: 204-203 and 600-203.

**362-481 Student Led Courses 1-4 cr.**

See Courses with Variable Content.

**362-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**362-484 Senior Honors Project 3 cr.**

See Courses with Variable Content.

**362-492 Practicum in Environmental Science 3 cr.**

A project-based course in which students address a practical application of scientific and mathematical skills in the environmental sciences. Topics vary. (S)

**362-497 Internship 3-12 cr.**

See Courses with Variable Content.

**362-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

## 416 Geography

**416-102 World Regions and Concepts: A Geographic Analysis 3 cr.**

Contemporary geography, its viewpoints and methodology; geographic reality of the present-day world is analyzed through case studies using both the regional approach and systematic analysis. (F)

**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. (S)



**416-250 Displays of Geographic Information 3 cr.**

The appreciation, use, and evaluation of maps and air photos as informational sources. (F)

**416-283X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**416-298 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

**416-320 Landform Geography: Topics and Regions 3 cr.**

Geographic methods of landform description and analysis with application to selected regions of the world. Field trips required. P: soph st; Rec: 296-202. (SE)

**416-325 Regional Climatology 3 cr.**

The elements, controls, and classification of climates; the distribution of climatic types over the earth; world patterns of climate. P: soph st; Rec: 296-202 and 834-222. (SE)

**416-341 The City and Its Regional Context 3 cr.**

The city is viewed in two perspectives: as an entity among other cities and the surrounding region, and as a complex of subsystems, commercial, residential, and manufacturing, functioning in space. Field trips required. P: soph st. (JE)

**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 habitations on the landscape, and the historical geography of urban settlements. Field trips required. P: soph st. (S)

**416-350 Geographic-Land Information Systems 3 cr.**

Uses state-of-the-art software to integrate digitized data and 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. P: 266-155. (S)

**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: soph st. (F)

**416-353 Air Photo Interpretation 3 cr.**

Techniques for the interpretation of human and natural land use. Vertical, oblique, and infrared aerial photography are used in analyzing a wide variety of land use areas. P: soph st. (F)

**416-368 Geopolitics of World Regions 3 cr.**

See 834-368.

**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: soph st. (F)

**416-372 Analysis of the Great Lakes Region of North America 3 cr.**

See 834-372.

**416-377 Analysis of Northern Lands 3 cr.**

See 834-377.

**416-378 Geography of Conflict Areas 3 cr.**

Moral, ethical, social, geographical, and political factors that have contributed to tension and conflict between nation-states. Introduces value issues of basic social science concepts such as nationalism and the "national interest." Primary attention is to the Middle East, Southeast Asia, India-Pakistan, and Korea. P: 416-102 or 778-100. (S)

**416-380 Geomorphic Processes 3 cr.**

The operations and interrelationships of agents involved in creating and modifying the physical features of the earth's surface. Landforms in flux as these influence transportation, settlement, agriculture, etc. P: 296-202; Rec: 296-203. (F)

**416-420 Soil Classification and Geography 3 cr.**

Morphological properties of soils and major kinds of soil horizons; principles of soil classification and taxonomic systems; soil-landscape relationships; genesis and global distribution of major kinds of soils; soil surveys and their interpretations for agriculture, engineering, and urban planning. Field trip required. P: 296-202 or 362-320.

**416-421 Soils and Geology of Wisconsin Field Trip 2 cr.**

See 362-421.

**416-451 Computer Cartography 3 cr.**

Use of the computer in assisting cartographic production; its advantages, disadvantages and limitations; employment of current cartographic display software systems and applications of computer assisted mapping to geographic problems. P: 416-250 and 351. (S)

**416-470 The Glacial Environment and Chronology 3 cr.**

See 296-470.

**416-478 Senior Distinction in Geography 3 cr.**

See *Courses with Variable Content*.

**416-483X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**416-497 Internship 3-12 cr.**

See *Courses with Variable Content*.

**416-498 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

## 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. (F,S)

**448-201 Ancient Civilization 3 cr.**

Examines the evolution of early civilization from its beginnings in the Near East and eastern Mediterranean to classical Greece and the decline of the Roman Empire; includes art, institutions, ideas and values as well as political, social and economic development. (FO)

**448-202 The Middle Ages 3 cr.**

Examines Western civilization from the late Roman Empire to the Renaissance and Reformation: the Christian Church; feudalism; the emergence of national states and institutions, urban civilization, agriculture, trade, technology and cultural achievements. (SE)

**448-203 History of Europe from 1300 to 1815 3 cr.**

Emergence of the nation-state; absolutism and parliamentary government; development of urban centers, the middle class, commerce, capitalism and early industry; Western expansion and its collision with non-European cultures; the scientific revolution; the Enlightenment; the French Revolution; beginnings of the Industrial Revolution; appearance of the secular and rational human.

**448-204 History of Europe from 1815 to the Present 3 cr.**

Emergence of modern Europe; revolutions, industrialization, urbanization and the origins of modern classes and institutions; conservatism, liberalism, socialism, communism and fascism; the impact of science; imperialist expansion; the making of new nations in Europe and the Third World; world wars and totalitarian politics. (SO)

**448-205 History of the United States from 1600 to 1865 3 cr.**

Forces that shaped the political, social, cultural, intellectual and economic history of the United States through the Civil War. (F)

**448-206 History of the United States from 1865 to the Present 3 cr.**

Forces that shaped the political, social, cultural, intellectual and economic history of the United States since the Civil War. (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

institutions; includes political, social, economic and cultural history. (F,S)

**448-208 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. (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. (F)

**448-251 Modern Asian Civilization 3 cr.**  
History and civilization of East, Southeast and South Asia since the end of the 18th century, emphasizing China and Japan and the social, political, economic and cultural changes resulting from contact with the West. (S)

**448-275 The Vietnam War in Historical Perspective 3 cr.**  
The conflicts and upheavals in Indochina from World War II to the present with particular attention to the Vietnam War; the role of the U.S. in Indochina, its effects on both the U.S. and Indochina, and the Indochinese context of revolution and change. Rec: soph st. (J)

**448-283X Selected Topics 1-4 cr.**  
*See Courses with Variable Content.*

**448-298 Independent Study 1-4 cr.**  
*See Courses with Variable Content.*

**448-302, 303 American Thought and Culture 3, 3 cr.**  
Development of patterns of American thought and culture within the context of the major Western intellectual traditions; changing conceptions of nature, humanity, society, progress and art, and how they were given coherence and social force in the works of key American thinkers and in the formation of characteristic American cultural agencies. Rec: jr st. (F,S)

**448-306, 307 European Thought and Culture: 1500 to the Present 3, 3 cr.**  
Development, transmission and impact of European philosophy, religion, science, literature, art and social thought; significant thinkers and cultural institutions; major currents and trends. 306 includes Renaissance, Reformation, Scientific Revolution, Age of Reason; 307 includes romanticism, liberalism, nationalism, positivism, irrationalism, fascism, socialism, existentialism. Rec: jr st. (FO, FE)

**448-309 History of Science in Modern Times 3 cr.**  
Development of science since the 16th century as part of its cultural contexts; discussion of important scientific concepts of the last four centuries. Rec: jr st. (SO)

**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. Rec: jr st. (FO)

**448-311 History of Wisconsin 3 cr.**  
Wisconsin history from European exploration to the present; development of Wisconsin as part of the international Great Lakes region and the United States; political, economic and cultural history of the region, territory and state. Rec: jr st. (S)

**448-314 History of the Russian Empire 3 cr.**  
Social, intellectual and economic developments and crises from the Crimean War to the Bolshevik Revolution. Rec: jr st. (FE)

**448-315 The Soviet Union from 1917 to the Present 3 cr.**  
Ideological, political, economic, social, diplomatic and cultural history of Russia since the Bolshevik Revolution. Rec: jr st. (SE)

**448-320 U.S. Military History 3 cr.**  
Important developments in American military strategy and its relationship to national policy; views of relevant theorists and their utility in actual strategic situations; current military thinking and the balance of forces. Rec: jr st. (FE)

**448-322 Economic and Business History of the U.S.: 1876 to Present 3 cr.**  
Development of a corporate economy and the rise of government intervention; industrial, financial, agricultural and labor reorganization; wage and price policies and their relationship to these general themes; modernization and urbanization and the relationship between the domestic and world economy. Rec: jr st. (SE)

**448-324 American Foreign Relations: 1865 to the Present 3 cr.**  
History of American foreign policy, including changing views of the world, balance of power, idealism and self-interest; foreign policy decisions and the relationship between foreign policy concerns and domestic politics. Rec: jr st. (FO)

**448-325 History of Modern Germany 3 cr.**  
Political, social, economic and cultural development of modern Germany from the establishment of the Empire in 1871 to the division of Germany after World War II. Rec: jr st.

**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. Rec: jr st.

**448-352 History of Modern China 3 cr.**  
Social, political, economic and cultural history of China since 1800: the impact of the West, reform programs in late imperial China, Chinese nationalism, republican China, rise of Chinese communism, Maoist thought, and the development of Chinese communist society. Rec: jr st.

**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 remaking of Southeast Asia under the stimulus of the West and the Southeast Asian response. Rec: jr st. (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. Rec: jr st. (FO)

**448-358 Aspects of Latin American History 3 cr.**  
Examines themes such as colonization, neo-colonialism, and class and ethnic conflict; analyzes the external and internal forces which have contributed to the making of modern Latin America. Rec: jr st.

**448-375 Great Decisions: Issues and Options in International Affairs 3 cr.**  
Major regional and global issues, problems and conflicts, their impacts on the U.S. and other countries, and analysis of policies and policy alternatives; evaluation of international affairs on the shaping of U.S. foreign and domestic policy. Rec: jr st. (S)

**448-403 Political and Social History of Modern America 3 cr.**  
Political and social change in 20th century America; evolution of governmental roles in social change; development of American culture; emergence of the U.S. as an industrial and political power. Rec: jr st. (SE)

**448-404 Political and Social 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. Rec: jr st.

**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. Rec: jr st.

**448-478 Senior Distinction in History 3 cr**

*See Courses with Variable Content.*

**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. Rec: jr st. (S)

**448-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**448-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**448-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

Other courses which may be taken for credit in history:

- 493-101, 102 Foundations of Western Culture
- 493-226 American Indian Studies: History and Verbal Traditions
- 493-250 European Economy and Society
- 493-251 Business and American Life
- 493-274 Red Man in White America
- 493-332 Art and Social Thought
- 493-374 Wisconsin Indians: Historical and Cultural Perspectives
- 875-333 Social Change in a Selected Area
- 875-361 Historical Perspectives on Social Change
- 950-313 Cities Past, Present and Future

**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. Credit not granted for both 478-102 and 110. (F,S)

**478-110 Introduction to Physical Anthropology 3 cr.**

Understanding human populations from a biological, evolutionary perspective: evolutionary history, diversity, and adaptation of human beings and the mutual interaction and influence of human culture and biology within an evolutionary framework. Credit not granted for both 156/478-110 and 102.

**478-204 Anatomy and Physiology 5 cr.**

Structure and function of the human body, its organs and organ systems; includes skeletal, muscular, nervous, endocrine, digestive, respiratory, cardiovascular, urinary, and reproductive systems. P: 204-202. (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 or 156/478-110. (F,J,S)

**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 or 156/478-110. (F,S)

**478-215 Dimensions of Health 3 cr.**

Theoretical and practical knowledge about health and wellness, with experiential exercises to heighten awareness of one's own values, attitudes and abilities toward living healthy. (S)

**478-217 Man, Nature and Disease 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 156/478-110.

**478-250 Fitness for Life 2 cr.**

Health-related fitness, including its impact on society and the individual; development and implementation of a personal fitness program; role and value of fitness in physical and emotional health, heart disease, longevity, and quality of life. Rec: 478-102. (S)

**478-281 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**478-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**478-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**478-310 Human Genetics 3 cr.**

Principles of human population genetics and the genetic implications of technology; human metabolism, birth defects, and genetic diseases; genetic counseling and gene therapy. P: 204-202 or 478-102 or 156/478-110. (S)

**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 156/478-110 or 204-202. (J,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)

**478-320 Biology of Human Development and Senescence 3 cr.**

Physical and functional changes that occur during stages in the human life span, from before birth to old age. Emphasis on nervous, skeletal, immune, reproductive and cardiovascular systems and on theories of aging. P: 478-102 or 204 or 204-203 or transfer course 204-002. (F)

**478-333 Principles of Sports Physiology 3 cr.**

Applications of exercise physiology in exercise training, conditioning, and athletic performance, including study of such factors as ergogenic aids, sex, age, and training. P: 478-102 or 204-202; Rec: 478-350. (S)

**478-342 Human Evolution 3 cr.**

Phylogenetic history and affinities of homo sapiens and the evidence on which they are based. P: 478-102 or 204-202. (S)

**478-350 Principles of Exercise Physiology 4 cr.**

Fundamentals of physiology and exercise in humans, including the role of physiological systems in dealing with adaptations to acute and chronic patterns of exercise; measurement of various parameters associated with human performance, such as maximal oxygen uptake and body composition. P: 478-204 or 204-203 or transfer course 204-002. (F)

**478-351 Kinesiology 3 cr.**

Anatomical and mechanical principles involved in human movement. Emphasis on musculo-skeletal anatomy and the structural-functional relationship associated with movement. Additional topics include the role and significance of joints, connective tissue, and nerves in bodily movement. P: 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, or races, from around the world, including populations living in stress environments such as high altitudes, the arctic, and deserts. P: 478-102 or 204-202. (F)

**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: 204-203 or transfer course 204-002 or 478-204; 225-108 or 225-212. (F)

**478-404 Animal Physiology Laboratory 2 cr.**

Experimental study of major animal organ systems. Topics include experimental error; cardiovascular/respiratory, enzyme, endocrine, nervous, muscular, renal, and osmoregulatory systems using whole-body, electrophysiological, surgical, biochemical, histological, and behavioral techniques. P: 478-402 or 204-346 or 478-413 or 478-318 or conc enroll.

**478-412 Principles of Parasitology 3 cr.**

Interactions of human populations with parasitic worms, protozoans, and arthropods. Laboratory studies include identification and life cycles of parasites. P: 204-203.

**478-413 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 or 478-204 or transfer course 204-002; 225-108 or 212. (S)

**478-481 Student-Led Courses 1-4 cr.**

See Courses with Variable Content.

**478-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**478-484 Senior Honors Project 3 cr.**

See Courses with Variable Content.

**478-497 Internship 2-12 cr.**

See Courses with Variable Content.

**478-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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. (F,S)

**481-281 Student Led Courses 1-4 cr.**

See Courses with Variable Content.

**481-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**481-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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 preschool years and the interrelationships among biological, sociocultural and psychological aspects of development. P: 481-210 or 820-102 or BSW classif and 820-202. (F,S)

**481-332 Middle Childhood and Adolescence 3 cr.**

Individual development from the elementary school years through adolescence: sociocultural, 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 or BSW classif and 820-202; Rec: 481-331 or equiv. (F,S)

**481-333 Observation and Interpretation of Child Behavior 3 cr.**

Study of the behavior and development of young children through direct, systematic observation of children in selected situations and comparison with established child development theories and data. P: 481-331. (F)

**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. (S)

**481-335 Introduction to Experience with Young Children 1 cr.**

Supervised work with young children in a group situation. Recommended only for students fulfilling licensure requirements for early childhood education. Pass/no credit only. P: 481-331. (F,S)

**481-336 Gender Roles 3 cr.**

Developmental and sociological analysis of the variety of factors influencing our conceptions of gender and sex-role behaviors. P: 481-210 or 820-102.

**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. (F,S)

**481-343 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 or BSW classif and 820-202; Rec: 481-331, 332. (F,S)

**481-344 Death: The Final Stage of Life 3 cr.**

Study of death and dying from different disciplinary perspectives: death anxiety; attitudes toward death; the process of dying; discussion of issues such as living wills, death education, death rituals. P: 481-210 or 820-102. (SE)

**481-352 Social and Family Influences on Early Development and Training 3 cr.**

See 302-352.

**481-380 Families and Sexuality: Politics and Public Policy Issues 3 cr.**

Public policy issues and political agendas related to families and sexuality in American society; historical overview of policy development since the 1960s; current policy issues such as AIDS, domestic violence, teenage childbearing/childrearing, abortion, child care, homelessness and reproductive technologies. P: 481-210 or 875-235 or 900-308; one additional social science course. (SE)

**481-420 Tests and Measurements 3 cr.**

Problems of measuring human characteristics, including determination of validity, reliability, and interpretive schemas for such measures. Examination of selected tests in intelligence, achievement, attitudes, interests, and personality. Typical uses of tests and methods for reviewing tests. P: jr st; 255-205 or 600-260. (S)

**481-429 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. P: upper-level human development or psychology course; Rec: jr st. (F,S)

**481-431 Cognitive Development 3 cr.**

Development of cognitive functioning from infancy to adulthood: analysis of intellectual development from the major contemporary perspectives of information processing, Piagetian psychology, and behaviorism. P: 481-331, 332, or equivalent and 255-205 or 600-260. (F)

**481-435 Abnormal Behavior 3 cr.**

Deviations from normal intellectual, physical, emotional, and social development (such as retardation, psychopathology, emotional

problems) throughout the life cycle; includes study of accelerated development, delayed development and disturbances in development, biological and environmental origins of deviations. P: upper-level human development or psychology course. (F,S)

**481-436 Counseling with Children and Adolescents 3 cr.**

Theories and principles of counseling as applied to children and adolescents; surveys different theoretical approaches and techniques for helping children and adolescents cope with developmental deviations. P: upper-level human development or psychology course; Rec: 481-331, 332, 435 or equivalent and jr st. (F)

**481-437 Counseling with Adults and the Aged 3 cr.**

Theories and principles of counseling as applied to adults and the aged; surveys different theoretical approaches and techniques for helping adults and the elderly cope with the developmental problems of the latter half of the life cycle. P: upper-level human development or psychology course and jr st; Rec: 481-343, 435 or equiv. (S)

**481-441 History, Philosophy, and Current Programs in Early Childhood Education 3 cr.**

See 302-441.

**481-452 Advanced Gerontology 3 cr.**

The process of aging as studied in social gerontology (aging in the social context) and geropsychology (the psychological processes of aging). Discusses relationships among the physiological, emotional, cognitive, social and personality changes in later life; health care and social policies. P: 481-343. (SE)

**481-478 Senior Distinction in Human Development 3 cr.**

See *Courses with Variable Content*.

**481-481 Student Led Courses 1-4 cr.**

See *Courses with Variable Content*.

**481-483X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**481-484 Senior Honors Project 3 cr.**

See *Courses with Variable Content*.

**481-495 Language Acquisition in Childhood 3 cr.**

Language learning and development, including structural and transformational linguistics, biological and physiological aspects, relationship to psychological development, use as a cognitive tool, communication skills and the effects of sociocultural factors. P: 481-331; Rec: linguistics course. (JO)

**481-497 Internship 3-12 cr.**

See *Courses with Variable Content*.

**481-498 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

## 493 Humanistic Studies

**493-101, 102 Foundations of Western Culture I, II 3, 3 cr.**

Major events, developments, personalities, ideas, concepts and values that mold each age and constitute our traditions and sources; 101 covers the period from ancient civilization to the Renaissance, 102 the Renaissance to the modern world. (F,S)

**493-106 Great Books 3 cr.**

Introductory study of notable literary and nonliterary texts, considered from a historical perspective. (F,S)

**493-201, 202 Introduction to Humanities I, II 3, 3 cr.**

Major methods and ideas of the Western humanities, examined in selected works of literature, philosophy and fine arts. 201 covers Classical world through Renaissance; 202 Enlightenment through present. (F,S)

**493-204 Humanistic Values Through Literature 3 cr.**

Examines particular value issues from a humanistic perspective through discussion of essays, stories, poems, plays and novels; may include both Western and non-Western viewpoints. (F,S)

**493-205 Personal Values and Social Reform 3 cr.**

Examines the values that underlie social reform, asking such questions as whether attempts at social reform are harmful or beneficial to individuals in the society, how one might determine whether a society should be reformed, and what effects reform programs might have on the exercise of individual freedom. (S)

**493-210 Film and Society 3 cr.**

See 242-210.

**493-211 Human Relations and the Humanities: Understanding Discrimination 3 cr.**

Explores psychological and social causes and consequences of discrimination and their impact on groups in American society. Examines methods of discrimination reduction; constitutional and legal foundations for equal rights; and bases of attitude change. Students evaluate materials, activities, and environments and learn constructive ways of dealing with lack of human understanding. (F)

**493-212 Human Relations and the Humanities: Cultural Diversity 3 cr.**

Develops understanding and appreciation of the histories and cultures of groups which have historically faced discrimination in the United States, including Afro-Americans, American Indians, Asian-Americans, Hispanic-Americans, and women. Studies historical development, current status, and perspective of each group. Students evaluate learning materials and learn ways to respond to actions which devalue others. (S)

**493-225 American Indian Studies: Arts and Ceremonial Traditions 3 cr.**

See 242-225.

**493-226 American Indian Studies: History and Verbal Traditions 3 cr.**

See 242-226.

**493-250 European Economy and Society 3 cr.**

Major issues, developments and problems which shaped European societies in the course of the transformation from rural, agrarian and largely static societies to urban, industrial and rapidly changing ones. (F)

**493-251 Business and American Life 3 cr.**

The social and individual values which relate human experience to business goals; the influence of business values on the organization of American life; business successes and shortcomings and the ways in which American civilization has adapted to them. Rec: 493-250. (F,S)

**493-274 Red Man in White America 3 cr.**

Examines the changing position of American Indians in American culture and society: historical relations of Indians and whites, basic processes of socio-cultural change, and past and current stereotypes, images and visions of "the Indian."

**493-276 Ireland: Culture and Conflict 3 cr.**

Studies Irish history, literature and culture to understand the values which have shaped the Irish way of life, especially from 1850 to the present.

**493-281 Student-Led Courses 1-4 cr.**

See *Courses with Variable Content*.

**493-283X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**493-295 Art and Ideas in Western Culture 3 cr.**

Surveys the works and ideas of a selection of sculptors, architects, musicians, philosophers, poets and writers to provide a cultural history of the Western world from the middle ages to the present, using the television series *Civilization* by Kenneth Clark. (J)

**493-298 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

**493-302 Human Identity 3 cr.**

Presents the concept of human identity from the vantage-point of many disciplines; demonstrates the contributions of science and art and their mutual interaction. Rec: jr st.

**493-305 Value Theory and the Humanities 3 cr.**

The ideas and methods of value inquiry with special attention to problems and claims of values of the environment and the humanities. Rec: 493-201, 202.

**493-315 Theories of Creativity 3 cr.**

Presents the concept of "creativity" from different humanistic approaches and viewpoints, emphasizing the relationship of creativity to the various psychological, artistic and humanistic theories. Rec: jr st.

**493-323 The Writings of the Old Testament 3 cr.**

The Old Testament as literature and as part of the literary heritage of the Western world. Examines the books of the Old Testament by genre (narrative, poetry, idyll, drama) with techniques of literary analysis as appropriate relative to theme, character, plot, symbolic order and structure. Rec: jr st. (FE)

**493-324 The Writings of the New Testament 3 cr.**

The origins of the Christian tradition as reflected in the primary texts of that tradition in the New Testament: the major divisions of the writings of the New Testament, the life of Jesus as recorded in the gospels, the importance of St. Paul and the apocalyptic writings of St. John. Rec: jr st. (SE)

**493-325 Judaism, Christianity, and Islam 3 cr.**

The world's three great monotheistic religions; their origins; the experience, ideas and attitudes they share; the features which make each a distinct and unique expression and system of belief in the God who is One. P: 493-323, 324. (FO)

**493-326 Non-Western Religions 3 cr.**

The two major religions of the East, Hinduism and Buddhism: the richness, variety and flexibility of the faith and practice of Hinduism, with its belief in a multiplicity of gods and goddesses; and the various sects and schools of Buddhism—Theravadic, Mahayana, Zen and Tantric. Rec: jr st. (SO)

**493-332 Art and Social Thought 3 cr.**

The role of art and art criticism in various modern theories of social order and social change; considers art, whether seen as personal expression or as the expression of social process, primarily from the perspectives of social criticism and historical analysis. Rec: 493-201, 202, jr st.

**493-333 Utopia and Anti-Utopia 3 cr.**

The origins, history, and philosophical and political significance of utopian thought in Western culture; the development of major utopian ideals from Plato to the present. Rec: jr st.

**493-340 Perspectives on Human Values: The Classical World 3 cr.**

Focuses on the values of the world of classical Greece and Rome as reflected in its texts and fine arts. (F,S)

**493-341 Perspectives on Human Values: The Medieval World 3 cr.**

Focuses on the history, society, culture and values of the middle ages as reflected in its literature and fine arts. Rec: jr st. (S)

**493-342 Perspectives on Human Values: Renaissance to Enlightenment 3 cr.**

Explores the idea of the individual as the measure of value in texts and fine arts as it appears in the Renaissance and develops in Western culture through the 18th century. Rec: jr st. (F)

**493-343 Perspectives on Human Values: Romanticism to Naturalism 3 cr.**

Studies the development of Romanticism as a self-conscious notion in the late 18th century, coincidental with the Industrial Revolution; examines the interaction of the social world with the world of art and ideas and the emergence of the naturalism movement. Rec: jr st. (F)

**493-344 Perspectives on Human Values: The Modern Period 3 cr.**

Some of the most significant ways by which modern writers and artists have sought to understand the value predicaments and dilemmas of the human condition in an age in which no single set of values has sufficient authority to command belief and provide assurance. Rec: jr st. (F,S)

**493-345 Great Works of the Classical World 1-3 cr.**

Intensive study of a single great work from the classical world (ancient Greece and Rome). May be repeated for credit with different topic. Students are advised to also take 493-340. Rec: jr st. (F,S)

**493-346 Great Works of the Medieval World 1-3 cr.**

Intensive study of a single great work from the medieval world. May be repeated for credit with different topic. Students are advised to also take 493-341. Rec: jr st. (F,S)

**493-347 Great Works of the Renaissance Through the Enlightenment 1-3 cr.**

Intensive study of a great work of the period (fifteenth century to the eighteenth century). May be repeated for credit with different topic. Students are advised to also take 493-342. Rec: jr st. (F,S)

**493-348 Great Works of Romanticism to Naturalism 1-3 cr.**

Intensive study of a great work of the period (usually from mid-eighteenth century to end of nineteenth century). May be repeated for credit with different topic. Students are advised to also take 493-343. Rec: jr st. (F,S)

**493-349 Great Works of the Modern World 1-3 cr.**

Intensive study of a great work of the end of the nineteenth century to the present. May be repeated for credit with different topic. Students are advised to also take 493-344. Rec: jr st. (F,S)

**493-354 France Today 3 cr.**

Aspects of French history and traditional customs and values of contemporary French culture, including rural and urban life, industry and commerce, art and music, etc. Rec: jr st. (F)

**493-356 Contemporary German Culture 3 cr.**

The culture of the four German-speaking countries (the Federal Republic of Germany, the German Democratic Republic, Austria and Switzerland) and German culture in the U.S., emphasizing the post-World War II era in West Germany. (FE)

**493-358 Latin America Today 3 cr.**

Specific humanistic aspects of contemporary Latin American culture, including its history, art, literature, music and value systems. Rec: jr st. (FE)

**493-359 The Americas Look at Each Other 3 cr.**

Examines the way the Latin American culture perceives North American culture through the study of Latin American writers and artists. Rec: jr st. (SE)

**493-361 January/June Abroad: German Culture 3 cr.**

Travel to one of the German-speaking countries. Studies of German culture through on-site lectures, tours of historical and architectural sites, universities and museums, factories and businesses, and attendance at concerts and operas. P: written cons inst; Rec: 448-325 or 556-201. (J,S)

**493-363 January Abroad: Mexico 3 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. P: prior written cons inst; Rec: minimum one semester Spanish or equiv. (J)

**493-364 Women and Religion 3 cr.**

See 875-440.

**493-365 January Abroad: England and Its Heritage 3 cr.**

Field trip to England for on-site study of English literature, history and culture. Center of study is the city of London but also includes

conducted study tours to other sites such as Bath, Brighton, Cambridge, Canterbury, Oxford, Stonehenge and Stratford upon Avon. P: prior written cons inst; Rec: 552-214. (J)

**493-366 January in Paris 3 cr.**

Travel course in Paris and northwestern France to study cultural history and observe the daily life of citizens. Visits to museums, monuments, churches and concert halls; also supermarkets, cemeteries, shops and ethnic neighborhoods. Rec: jr st. (J)

**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; aesthetic ideals and basic symbolism of American Indian art. Rec: jr st.

**493-372 American Indian Mythology and Literature 3 cr.**

Spiritual and cultural values of the American Indian as reflected in oral and written traditions: myths, legends, and storytelling traditions, poetry and novels. Mythological and ritual functions of American Indian writing are emphasized. P: 493-226 or one literature course. (S)

**493-374 Wisconsin's Indians: Historical and Cultural Perspectives 2-3 cr.**

Historical and cultural survey of the Woodlands tribes of the Wisconsin areas, including Anishinabee (Chippewa), Menominee, Winnebago, Sauk, Fox, Potawatomi, Stockbridge-Munsee, and Oneida.

**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 dimension of the problem and assesses its consequences, both creative and destructive. Rec: jr st.

**493-380 Women in the United States: Historical and Cultural Perspectives 3 cr.**

Survey of the changing situations and various contributions of women in U.S. culture, with attention to individual lives and diverse social and ethnic backgrounds.

**493-410 The Christian Heritage: Birth of Christ to 1600 3 cr.**

Development of Christianity from the birth of Christ through the Reformation; growth of religious ideas in original writings and art. Provides understanding of powerful ideas and conflicts that continue to shape society.

**493-478 Senior Distinction in Humanistic Studies 3 cr.**

*See Courses with Variable Content.*

**493-480 Humanities Seminar 3 cr.**

A capstone seminar for Humanities majors, examining basic approaches of various humanities disciplines. Topics vary. Rec: intended for Humanistic Studies majors and minors, others with cons inst. (S)

**493-481 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**493-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**493-484 Senior Honors Project 3 cr.**

*See Courses with Variable Content.*

**493-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**493-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

## 520 Information and Computing Science

**520-210 Information Problems 3 cr.**

Introduction to understanding and solving information problems. Includes a survey of the field of information science; practice in algorithmic thinking; techniques of finding, assessing, organizing, and presenting information; confrontation with ethical and value issues.

**520-220 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 data bases, reference materials, indexes, specialized collections, and bibliographic networks. Rec: 246-200. (F)

**520-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**520-308 Information Technologies 3 cr.**

A survey of information technologies, their operation and limitation, and how the major electronic technologies are changing and affecting both the workplace and the household. P: 246-200 or 520-210.

**520-402 Expert Systems 3 cr.**

Introduction to techniques used to create expert systems. Students will interview experts to discover techniques used to solve problems, then convert these techniques into rules to make an expert system. P: 266-257 and 600-242.

**520-430 Information, Media and Society 3 cr.**

See 242-430.

**520-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**520-484 Senior Honors Project 3 cr.**

*See Courses with Variable Content.*

**520-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**520-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

## 552/554/556/558

### Literature and Language

Each language has a separate curriculum area number. Many courses are offered separately in different languages.

**552 ENGLISH-AMERICAN**

**554 FRENCH**

**556 GERMAN**

**558 SPANISH**

**552-100 College Writing 3 cr.**

An introductory course in college writing, emphasizing writing as a four-step process of prewriting, drafting, revising and editing. Focuses on sentence structure, paragraph development, principles of organization, research paper techniques; reviews conventions of punctuation, grammar, spelling and usage. P: 553-093 or enhanced ACT English score of 17 or higher. (F,S)

**101, 102 Introduction to the French, German, Spanish Language, I, II 4, 4 cr.**

Development of basic ability in understanding, reading, speaking and writing in French, German or Spanish. 554-101: (F); Rec for 556-101: one additional hour ARR (F,J); Rec for 558-101: one additional hour ARR (F); Rec for 554/556/558-102: 1 year high school or 1 semester college French, German, or Spanish. (S)

**552-104 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 classic to the contemporary. (F,S)

**552-105 Expository Writing 3 cr.**

College-level writing skills and principles of logical reasoning, effective organization and development of ideas using a variety of rhetorical modes; improvement in research paper techniques. P: 552-100 or 246-100 or enhanced ACT English score of 25 or higher. (F,S)

**552-107 The Short Story 3 cr.**

The short story as a literary form. Stories selected may be arranged according to period, theme, nationality or author. (J)

**201, 202 Intermediate French, German, Spanish Language I, II 4, 4 cr.**

Further development of the ability to understand, read and speak French, German or Spanish. Rec for 201: 2 years high school or 2 semesters college French, German, or Spanish; one additional hour ARR (F). Rec for 202: 3 years high school or 3 semesters college French, German, or Spanish. (S)

**552-206 Women in Literature 3 cr.**

Surveys both women as writers and women 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. (S)

**552-207 Philosophy and Literature 3 cr.**

See 736-207.

**552-212 Introduction to Creative Writing: Fiction 3 cr.**

A first course in the writing, appreciation, understanding and technique of fiction. (F,S)

**552-213 Introduction to Creative Writing: Poetry 3 cr.**

A first course in the writing, appreciation, understanding and technique of poetry. (F,S)

**552-214, 215 Introduction to English Literature I, II 3, 3 cr.**

Chronological survey of English literature: 214 from Anglo-Saxon times to the end of the 18th century, including such writers as Chaucer, Shakespeare, Donne, Milton, Pope, and Swift; 215 from the 19th century to the present, including such writers as Wordsworth, Shelley, Keats, Byron, Tennyson, Shaw, Conrad, Eliot and Thomas. (F,S)

**552-216, 217 Introduction to American Literature I, II 3, 3 cr.**

Chronological survey of American literature: 216 from Bradford to Melville, including such writers as Mather, Bradstreet, Paine, Irving, Cooper, Poe, Emerson and Thoreau; 217 from Whitman to the present, including such writers as Longfellow, Dickinson, Twain, James, Crane, Eliot, Pound, Fitzgerald, Hemingway, Faulkner and Cummings. (F,S)

**225 Intermediate Conversation and Composition 3 cr.**

Development of greater fluency in French, German, Spanish through classroom practice in conversation and composition. Rec: 4 years high school or 4 semesters college French, German, or Spanish. (F)

**554-230 French Television for Conversation 3 cr.**

French television programs are viewed to: improve listening skills; provide subject matter for small-group conversations to improve speaking ability; provide cultural insights. Rec: 554-201 or equivalent. (J)

**283X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**556-289 Intensive German 15 cr.**

Intensive course aimed at developing foundational proficiency in one semester. Class meets six hours a day, four days a week; equivalent to both introductory and intermediate courses in the language. Rec: 556-101; see 556-361 to enroll for trip to Germany. (S)

**298 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

**552-301 Intermediate Creative Writing 3 cr.**

Literary texts are compared with their source materials. Student writers of poetry, fiction, drama and journalistic features develop projects based on research of historical or other source materials. Rec: 552-212 or 213 or 246-203.

**552-302 Fiction Writing Workshop 3 cr.**

Advanced practice in the writing of fiction, including group criticism of student work. May be repeated once for credit. P: 552-212 or cons inst; Rec: 6 cr lower-level literature. (F,S)

**552-303 Poetry Writing Workshop 3 cr.**

Advanced practice in the writing of poetry, including group criticism of student work. May be repeated once for credit. P: 552-213 or cons inst; Rec: 6 cr lower-level literature. (S)

**552-304 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: 552-105 or enhanced ACT English score of 25 or higher or cons inst; Rec: 6 cr lower-level literature. (S)

**552-310 Major English Drama 3 cr.**

Significant English plays from the Renaissance to the Twentieth Century, including works by Marlowe, Webster, Congreve, Shaw, and Wilde. P: 6 cr from 552-104, 206, 214, 215, 216, 217, 915-309, 310, 351, 352, 409. (J)

**552-314 Major English Poetry 3 cr.**

English non-dramatic poetry from the early Anglo-Saxon period (in translation) through Chaucer and the Renaissance up into the modern period, including works by such major figures as Spenser, Shakespeare, Milton, Pope, Blake, Wordsworth, Keats, Tennyson, Browning, and Hardy. P: 552-214 or 215 or cons of inst; 3 additional lower-level cr in literature or creative writing. (J)

**552-315 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 as Defoe, Sterne, Fielding, Smolett, Austen, Scott, the Brontes, Thackeray, Dickens and Eliot. P: 552-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

**552-316 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: 552-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

**552-323 Approaches to Literature 3 cr.**

Studies various ways of analyzing a literary work, including historical, psychological and formal approaches; examines poems, plays and novels using different critical approaches. P: 3 lower-level cr in literature; 3 additional lower-level cr in literature or creative writing. (F)

**325 Advanced Conversation and Composition 3 cr.**

Continues development of fluency in French, German, Spanish 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. Rec for 554 and 556: 554/556-225; Rec for 558: 558-225 or cons inst. (S)

**329 Representative French/German/Spanish Authors 3 cr.**

Important novels, plays, poems, and essays representative of major eras and movements of French, German, or Spanish society foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and differing treatment of recurring themes. Offered in the language. Rec for 554 and 556: 554/556-225 (S,F); Rec for 558: 558-225 or cons inst. (S)

**552-330 Major American Drama 3 cr.**

The literary structure and qualities of plays written in the United States, usually emphasizing those by such major 20th-century dramatists as Eugene O'Neill, Elmer Rice, Tennessee Williams, Arthur Miller, Lorraine Hansberry, Lillian Hellman, Edward Albee, Amiri Baraka and Luis Valdez. P: 6 cr selected from: 552-104, 206, 214, 215, 216, 217, 915-309, 310, 351, 352, 409. (J)

**554-330 French Television for Conversation 3 cr.**

See 554-230. Rec: 554-225 or equivalent. (J)

**552-331 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: 552-216 or 217 or cons inst; 3 additional lower-level cr in literature or creative writing.

**552-332 Major American Poetry 3 cr.**

Examines significant differences in the voices and styles of key American poets. Content may span centuries or focus on a particular period, such as the modern and contemporary work of poets like Wallace Stevens, William Carlos Williams, Theodore Roethke, Anne Sexton, Gary Snyder, and Margaret Atwood. P: 552-216 or 217 or cons inst; 3 additional lower-level cr in literature or creative writing. (J)

**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: 3 lower-level cr in literature (552-214 or 215 or cons inst when subject is English literature; 552-216 or 217 or cons inst when subject is American literature); plus 3 additional lower-level cr in literature or creative writing.

**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: 3 lower-level cr in literature (552-214 or 215 or cons inst when subject is English literature; 552-216 or 217 or cons inst when subject is American literature); plus 3 additional lower-level cr in literature or creative writing. (F,S)

**554-345 Advanced French Grammar and Translation 3 cr.**

In-depth review and continued study of French grammar, including fundamentals of comparative English-French grammar, and basic principles of translation from French into English and English into French. Rec: 554-225 or equivalent.

**554-346 French Phonetics and Public Speaking 3 cr.**

Intensive study of French sound system to improve accuracy of pronunciation and intonation. Different accents studied. Intonation patterns needed for different social situations practiced. Rec: 554-225 or equivalent.

**350 Major Foreign Drama 3 cr.**

Study of French, German or Spanish drama either by period or by theme; conducted either in the foreign language or in English. P: 6 cr from: 552-104, 206, 214, 215, 216, 217, 915-309, 310, 351, 352, 409.

**351 Major Foreign Prose Fiction 3 cr.**

Study of French, German or Spanish short story and/or novels either by period or by theme; conducted either in the foreign language or in English. P: 3 lower-level cr in literature; 3 additional lower-level cr in literature or creative writing.

**352 Major Foreign Poetry 3 cr.**

Study of French, German or Spanish poetry either by period or by theme; conducted either in the foreign language or in English. P: 3 lower-level cr in literature; 3 additional lower-level cr in literature or creative writing.

**554-354 France Today 3 cr.**

See 493-354.

**554-355 La Monde Francophone 3 cr.**

Study of the French-speaking (francophone) world outside of France. Essential features of the geography, history, and culture of francophone countries on five continents. Rec: 554-225 or equivalent.

**556-356 Contemporary German Culture 3 cr.**

See 493-356.

**358 Latin America Today 3 cr.**

See 493-358.

**359 The Americas Look at Each Other 3 cr.**

See 493-359.

**556-361 January/June Abroad: German Culture 3 cr.**

See 493-361.

**363 January Abroad: Mexico 3 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. P: 558-225. (J)

**554-366 January in Paris 3 cr.**

See 493-366. P: 554-225.

**552-431 Shakespeare 3-4 cr.**

Study of a representative selection of Shakespeare's plays, including comedies, tragedies and histories. P: 6 cr from: 552-104, 206, 214, 215, 216, 217, 915-309, 310, 351, 352, 409. (S)

**552-434 Major British Writer(s) 3 cr.**

Study of one or more outstanding figures in British literature, such as Chaucer, Milton, Blake, Wordsworth, Conrad, Joyce, Woolf, etc. May be repeated for credit when a different figure is studied. P: 552-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

**552-435 Major American Writer(s) 3 cr.**

Study of one or more outstanding figures in American literature, such as Melville, Twain, Dickinson, Whitman, Frost, Hemingway, Fitzgerald, Faulkner, etc. May be repeated for credit when a different figure is studied. P: 552-104, 214, 215, 216, 217.

**438 Major Spanish Writer 3 cr.**

Study of an outstanding figure in Spanish literature. Subjects will vary. Offered in either Spanish or English. (S)

**478 Senior Distinction in Literature and Language 3 cr.**

See *Courses with Variable Content*.

**483X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**556-485 Semester Abroad in 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 letter grade. P: 556-225. (F,S)

**552-490 Seminar in Literature 3 cr.**

Intensive study of a major writer, literary movement, literary period or influence. P: 3 lower-level cr in literature (552-214 or 215 or cons inst when subject is English literature; 552-216 or 217 or cons inst when subject is American literature); plus 3 additional lower-level cr in literature or creative writing. (S)

**497 Internship 3-12 cr.**

See *Courses with Variable Content*.

**498 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

## 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. P: 1 year hs algebra and enhanced ACT math score of 18 or higher, or 601-094, or transfer course 600-004; or not granted for 600-101 if prior cr received for 600-104, 202, or 203. (F,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. P: 600-101, or 2 years hs algebra and enhanced ACT math score of 25 or higher, or transfer course 600-004; or not granted for 600-104 if prior cr received for 600-202 or 203. (F,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 202; students who enroll in 600-202 after receiving credit for 600-201 will receive one credit for 600-202. P: 600-101, or transfer course 600-004, or 2 years hs algebra and enhanced ACT math score of 25 or higher. (F,S)

**600-202, 203 Calculus and Analytic Geometry I, II 4, 4 cr.**

Differential and integral calculus of the elementary functions with associated analytic geometry; transcendental functions; techniques of integration; applications; sequences and series. Full credit will not be granted for both 600-202 and 201. P for 202: 600-104, or 4 years hs math, including trig, and enhanced ACT math score of 27 or higher. P for 203: 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; extrema; least squares method; higher-ordered derivatives; integration; polar and cylindrical coordinates; spherical coordinates; vector fields; line integrals; physical applications. P: 600-203. (F,S)

**600-242 Discrete Mathematics 4 cr.**

Fundamentals of enumeration, partitions, algebraic counting techniques, generating functions, recurrence relations, graph theory and combinatorial designs. P: 600-104, or 4 years hs math, including trig, and enhanced ACT math score of 27 or higher. (F,S)

**600-260 Introductory Statistics 4 cr.**

Descriptive and inferential statistics; frequency distributions; graphical techniques; measure of central tendency and of dispersion; probability distributions; large and small sample estimation and inference, regression correlation, analysis of count data, analysis of variance. Credit will not be granted for both 600-260 and 255-205. P: 600-101, or transfer course 600-004, or 2 years hs algebra and enhanced ACT math score of 19 or higher. (F,S)

**600-281, 282 Conceptual Foundations of Elementary Mathematics I, II 3, 2 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 modelling in all arithmetic contexts; examines non-arithmetic topics such as geometry, probability, statistics, algebra, and programming concepts. 600-281 may not be taken on a pass/no credit basis. P: 600-101, or transfer course 600-004, or 2 years hs algebra and enhanced ACT math score of 25 or higher. (F,S; F,J,S)

**600-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**600-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**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; modelling physical and biological systems. P: 600-209. (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)

**600-311 Advanced Calculus 3 cr.**

Jacobians; transformation of coordinates; functional dependence; constrained extreme and Lagrange multipliers; line, surface and volume integrals; scalar and vector fields; gradient, divergence and curl; divergence theorem; Stokes' theorem. P: 600-209 and 320. (FO)

**600-312 Real Analysis 3 cr.**

Basic ideas of real analysis; sets and functions; topology of the real numbers; sequences and series of real numbers; limits of functions; the derivative; the Riemann integral; sequences and series of functions. P: 600-209 and 320. (SO)

**600-320, 321 Linear Algebra I, II 3, 3 cr.**

Matrices and vector space concepts. Systems of linear equations, matrices, determinants, vectors in two- and three-space, vector spaces, linear transformations, eigenvalues, and eigenvectors; positive-definite matrices, normal forms, the principal axis theorem, applications. P for 320: 600-203. P for 321: 600-203 and 320. (F,S; SE)

**600-328 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.**

See 266-350.

**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 enroll. (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 of a function with respect to a probability law; normal, Poisson, and 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. (SE)

**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 polynomial systems; Bessel functions; characteristic functions and values; Green's function; wave equation in one and more dimensions; D'Alembert's solution; Dirichlet problem; strings and membranes; heat flow; electricity flow. P: 600-305 and 209. (FE)

**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.

**600-478 Senior Distinction in Mathematics 3 cr.**

*See Courses with Variable Content.*

**600-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**600-492 Special Topics in Mathematics 1-3 cr.**

This course brings together students and professors who have mutual interest in some topics not otherwise available among the usual mathematics offerings. P: jr st and cons inst.

**600-497 Internship 3-12 cr.***See Courses with Variable Content.***600-498 Independent Study 1-4 cr.***See Courses with Variable Content.*

Other courses applicable to mathematics:

754-315 Classical Mechanics 3 cr.

008-704 Discrete Multivariate Statistical Analysis 2 cr.

008-767 Statistical Design and Analysis of Experiments 4 cr.

008-768 Multivariate Statistical Analysis 4 cr.

**644 Military Science****644-123 Exercise Leadership I 1 cr.***See 742-123.***644-211 Introduction to Military Science I (MS 11) 2 cr.***(Pre-Professional Course)* Introduces first year students to the ROTC program, Army life and organization, the Department of Defense and the Army's role in national defense and community activities. Map reading, radio and telephone procedures, CPR, and orienteering. (F,J)**644-212 Introduction to Leadership and Land Navigation II (MS 12) 2 cr.***(Pre-Professional Course)* Formal leadership and management theory and how it applies in military and civilian environments, first aid, basic marksmanship training, and customs and courtesies. Review of the Army's role in national defense and community service and the specialized organizations, units, skills, and training contributing to those services. (S)**644-221 Military History Studies (MS 21) 2 cr.***(Pre-Professional Course)* U.S. military history; origin and development of military organization, theories and practices of war (the evolutionary nature of war), from the American Civil War, World Wars I and II, the Korean Conflict, and the U.S. Army in Vietnam, to contemporary military realities. Continued development of leadership skills. (F)**644-222 Basic Leadership and Management (MS 22) 2 cr.***(Pre-Professional Course)* Leadership skills through military techniques of training, training management and instruction on the concept of performance-oriented training; fundamentals of leadership; styles of leadership, the setting and the problems. (S)**644-223 Exercise Leadership II 1 cr.**

Participation in the formal calisthenics program is enhanced by personal assessment and design of exercise program. Students learn leadership and elements of counseling for personal exercise involvement. Includes nutrition, stress control, environmental considerations. The physical readiness test is administered. (S)

**644-431 Small Unit Tactics (MS 31) 2 cr.***(Professional Course)* Squad and platoon-level command problems and tactics, Army communication and preparation for advanced ROTC camp by review of basic military skills and subjects, advanced land navigation and orienteering, completion of precamp preparation. P: levels 1 and 2, or basic camp, or prior military service. (F)**644-432 Professional Ethics and Management (MS 32) 2 cr.***(Professional Course)* The professional military science (ROTC) program. Basic concepts of military management with emphasis on integrating face-to-face leadership skills with management techniques; organizational theory and staff procedures; techniques of organizational decision making and communication. P: 644-211, 212, 221, 222 or equiv military experience. (S)**644-441 Contemporary Military Seminar (MS 41) 2 cr.***(Professional Course)* Introduces ROTC seniors to concepts of task organization, combined arms teamwork, basic company level tactics, and tactical planning, combat support and combat service support aspects of military operations, and technical aspects of management in the Army's unit level organization. Incorporates the fundamentals of military law. P: 644-431 and 432.**644-442 Military Management Seminar (MS 42) 2 cr.***(Professional Course)* The role of the Second Lieutenant in a military line organization and the Army's expectations regarding his or her commission, conduct, behavior, duty performance and public image. Military law and justice; obligations and responsibilities of an officer in both line and staff environments; active duty considerations affecting an officer, including military movements, compensation and financial management, and career. P: 644-431, 432, and 441. (S)**670 Music****670-100 Fundamentals of Music for the Classroom Teacher 1-3 cr.**

Fundamental skills needed to assist in the teaching of school music: introductory-level music theory, piano, recorder, vocal technique, and music listening. Prior skills not required. (F,S)

**670-101 Basic Musicianship 3 cr.**

Musical notation, scale and chord structure with reference to the keyboard; developing skills in sight singing, ear training and rhythmic and melodic dictation. (F)

**670-115, 116 Ear Training and Sight Singing I, II 1, 1 cr.**

Concentrated drill in all aspects of musicianship. Emphasis on sight singing and aural perception in intervals, melodies, chords and rhythms. P for 115: conc enroll in 670-151. P for 116: 670-115; 670-152 or conc enroll. (F,S)

**670-151, 152 Materials and Values in Music I, II 3, 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 for 151: music theory placement exam. P for 152: 670-151. (F,S)

**670-225 Diction for Singers I 2 cr.**

Introduction to the International Phonetic Alphabet and a specialized approach to diction study for American English and French.

**670-226 Diction for Singers II 2 cr.**

Specialized approach to diction study of Italian and German using the International Phonetic Alphabet. P: 670-225.

**670-241 Jazz Improvisation 3 cr.**

Development of skills in musical improvisation; notation and function of chords, chord symbols, scales and rhythms; selected record listening and playing sessions. Rec: basic playing and reading ability. (J)

**670-251, 252 Literature and Styles in Music I, II 4, 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 for 251: 670-152. P for 252: 670-251. (F,S)

**670-283X Selected Topics 1-4 cr.***See Courses with Variable Content.***670-298 Independent Study 1-4 cr.***See Courses with Variable Content.***670-301 Applied Music Pedagogy 1 cr.**

Individual observation of private applied lessons given by UWGB 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.

**670-315 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. (S)

**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, interpretive practices and performance problems inherent in extended choral works and the vocal and instrumental resources necessary to their performance. P: 670-152. (F)
- 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. Rec: jr st. (S)
- 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. Rec: jr st. (F)
- 670-343 String Techniques 2 cr.**  
Experience in the performance, pedagogy and critical evaluation of string instruments, including violin, viola, violoncello and string bass. Rec: jr st. (F)
- 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, mallet-keyboards, and accessories. Rec: conc enroll in applied instrumental lessons. (S)
- 670-346, 347 Keyboard Accompanying I, II 1, 1 cr.**  
Techniques of accompanying the vocal soloist and the choral ensemble at the piano, including laboratory experience in various types of accompaniment. P for 346: 672-042 or audition (F,S). P for 347: 670-346.
- 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: at least one of the following: 670-341, 342, 343, or 345. (S)
- 670-351, 352 Literature and Styles in Music III, IV 4, 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 for 351: 670-252. P for 352: 670-351. (F,S)
- 670-411 Composition 3 cr.**  
Exercises and original compositions in media from solo to quintet, in forms from binary to sonatina, etc., depending on the needs of the individual students. Repeatable once. Rec: 670-352. (F)
- 670-417 Jazz Arranging 2-3 cr.**  
Acquaints students with the knowledge necessary to write an artistic jazz arrangement. Rec: 670-252.
- 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. Content varies. P: 670-252. (F)
- 670-431 Jazz Ensemble Techniques 3 cr.**  
Procedures for rehearsing and teaching the jazz ensemble: daily playing experience in a jazz ensemble, writing an arrangement; studies in jazz theory, arranging, improvisation, piano, bass, guitar, drums, trumpet, trombone and saxophone. Rec: jr st.

**670-478 Senior Distinction in Music 3 cr.**  
*See Courses with Variable Content.*

**670-483X Selected Topics 1-4 cr.**  
*See Courses with Variable Content.*

**670-497 Internship 3-12 cr.**  
*See Courses with Variable Content.*

**670-498 Independent Study 1-4 cr.**  
*See Courses with Variable Content.*

## 672 Applied Music

**672-001-440 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, violin, viola, cello, double bass and harp. Special enrollment restrictions apply. (F,S)

**672-011, 012, 013 Keyboard Musicianship I 1 cr.**  
P: cr or conc enroll in 670-151. (F)

**672-021, 022 Keyboard Musicianship II 1 cr.**  
P for 021: 672-011 or audition. P for 022: 672-012 or audition. (S)

**672-031, 032 Keyboard Musicianship III 1 cr.**  
P for 672-031: 672-021; cr or conc enroll in 670-251. P for 032: 672-022; cr or conc enroll in 670-251. (F)

**672-041, 042 Keyboard Musicianship IV 1 cr.**  
P for 041: 672-031 or audition. P for 042: 672-032 or audition. (S)

**672-045, 046 Elementary Voice I, II 1, 1 cr.** (F,S)

**672-069 Elementary Guitar 1 cr.**  
P: 302-300 or cons inst. (F)

**672-143, 343 Jazz Ensemble 1 cr.**  
P for 143: audition. P for 343: jr st and audition. (F,J,S)

**672-144, 344 Woodwind Ensemble 1 cr.**  
P for 144: audition. P for 344: jr st and audition. (F,S)

**672-145, 345 Brass Ensemble 1 cr.**  
P for 145: audition. P for 345: jr st and audition. (F,S)

**672-146, 346 Percussion Ensemble 1 cr.**  
P for 146: audition. P for 346: jr st and audition. (F,S)

**672-150, 350 New Music Ensemble 1 cr.**  
P for 150: audition. P for 350: jr st and audition. (S)

**672-163, 363 Vocal Ensemble 1 cr.**  
P for 163: audition. P for 363: jr st and audition. (F,S)

**672-164, 364 University Singers Show Choir 1 cr.**  
P for 164: audition. P for 364: jr st and audition. (F,S)

**672-241, 441 Concert Band 1 cr.**  
P for 241: audition. P for 441: jr st and audition. (F,S)

**672-261, 461 Concert Choir 1 cr.**  
P for 261: audition. P for 461: jr st and audition. (F,S)

**672-262, 462 University Chorus 1 cr.**  
P for 262: audition. P for 462: jr st and audition. (F,S)

**672-275, 375 Performance Practicum: Major Musical 1-3 cr.**  
Offered for 1-4 credits in January. P for 275: audition. P for 375: jr st and audition. (J)

**672-283X, 483X Selected Topics 1-4 cr.**  
*See Courses with Variable Content.*

**672-298, 498 Independent Study 1-4 cr.**  
*See Courses with Variable Content.*

672-219  
MAX  
2 cr.

## 689 Nursing

### 689-215 Dimensions of Health 3 cr.

Theoretical and practical knowledge about health and wellness, with experiential exercises to heighten awareness of one's own values, attitudes and abilities toward living healthy. (S)

### 689-311 Theoretical Foundations in Nursing 3 cr.

Philosophical organization of nursing's scientific knowledge into theoretical frameworks with particular emphasis on the Roy Adaptation Model. Introduction to current nursing models and their applications. P: R.N. license. (F,S)

### 689-315 Health Assessment of the Adult 3 cr.

The components of the health history, basic skills of a physical examination, and related verbal and written communication skills. P: R.N. license. (F,S)

### 689-325 Nursing Diagnostics and Therapeutics 4 cr.

Acute and chronic health problems in middle-aged people which are responsive to nursing therapy as well as medical therapy; explores the underlying psycho-pathophysiology to develop a scientific rationale and support for intervention. P: matriculate to BSN; 689-315 and 311 or conc enroll. (F,S)

### 689-415 Gerontological Nursing 4 cr.

Theory and application of the Adaptation Model with well and ill clients, emphasizing care of the elderly; includes clinical experience to demonstrate use of the Adaptation Model. P: matriculate to BSN; 689-311, 315, and 325; additional 3 hrs/wk clinical lab. (F,S)

### 689-431 Nursing Management 3 cr.

Skills and strategies in nursing management and administration: organizational structure, change strategies, role conflicts and responsibilities, labor relations, leadership styles, group process and performance appraisal; applications in particular areas of nursing practice. P: matriculate to BSN; 689-311, 315, and 325; additional 3 hrs/wk clinical lab. (F,S)

### 689-435 Nursing Research 3 cr.

The role of the nurse as researcher; basic principles of research theory, understanding the research process; judging the adequacy of published research, concepts and procedures for conducting and reporting research. P: matriculate to BSN; 600-260 or 255-205 or conc enroll; 689-311, 315, 325. (F,S)

### 689-441 Community Health Nursing 6 cr.

Combines theory and clinical practice. Provision of care for individuals, families, aggregates and communities through the use of the Roy Adaptation Model. The nursing process as a problem-solving method. Primary, secondary and tertiary levels of prevention. P: matriculate to BSN; 689-311, 315, and 325. (F,S)

### 689-451 Advanced Nursing Concepts 4 cr.

Knowledge, skills and attitudes in the utilization of the adaptation framework; nature of professionalism in nursing and the professional role; the autonomous role; the expanding role of the nurse; ethical issues in nursing; economic, legal, political and social forces on nursing. P: matriculate to BSN; 689-311, 315, 325, 415, 431, 441. (F,S)

### 689-478 Senior Distinction in Nursing 3 cr.

*See Courses with Variable Content.*

### 689-484 Senior Honors Project 3 cr.

*See Courses with Variable Content.*

### 689-498 Independent Study 1-4 cr.

*See Courses with Variable Content.*

## 694 Nutritional Sciences

### 694-142 You and Your Food 3 cr.

Purposes, production, processing, packaging, advertising and distribution of food; changes in foods from farm to table; deterioration and preservation of foods; uses and abuses of additives; food safety and consumer protection. P: 478-102 or 478/156-110 or 204-202. (F,S)

### 694-201 Dietetics and Related Professions 1 cr.

Opportunities in dietetics and related professions, including food service administration, health and physical fitness, and health education. Education and training; characteristics of various employment sectors; aspects of management practice; skills for entrepreneurship; ethical considerations; laws, regulations and standards; political process and legislation related to health professionals. (S)

### 694-212 Nature of Food 4 cr.

Chemical, physical and microbiological nature of food and manipulation of these factors to produce properties of food associated with good quality and acceptability. Laboratory demonstrates principles of food science as applied to food preparation. P: 225-108 or 1 year hs chemistry. (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: 478-102 or 204-202 or 156/478-110. (F)

### 694-281 Student-Led Courses 1-4 cr.

*See Courses with Variable Content.*

### 694-283X Selected Topics 1-4 cr.

*See Courses with Variable Content.*

### 694-298 Independent Study 1-4 cr.

*See Courses with Variable Content.*

### 694-300 Human Nutrition 3 cr.

Fundamentals of human nutrition, including functions and requirements of essential nutrients; means of obtaining an adequate diet; nutritional needs of infancy, adolescence, adulthood, pregnancy and lactation, and aging. P: 225-108 or 204-202. (F)

### 694-301 Crop Science 3 cr.

Principles of plant science involved in the growth, management and production of field crops. Biological factors, environment, soil, climatic and technological foundations of agronomy and crop distribution. P: 204-203. (SO)

### 694-302 Nutrition and Culture 3 cr.

Effects of environment and culture on 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. (S)

### 694-304 Nutrition Education 2 cr.

Concepts essential to nutrition education including goals; development of teaching units and single presentations. Appropriate resources, methods, and techniques. The nutrition educator as a helping person; developing interviewing and counseling skills. Field experience. P: 694-300; Rec; 302-322. (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 afford pertinent practical experiences. P: 694-212. (SE)

### 694-328 Physiological Chemistry 3 cr.

Principles of physiological chemistry as related to structure, function and metabolism in living organisms. P: 225-300 and college level biology or nutrition course. Full credit will not be granted for both 225-330 and 225/694-328. (F)

**694-350 Life Cycle Nutrition 3 cr.**

Dietary management for the physiological, psychological, and social needs of infants, children, adolescents, adults (particularly women during pregnancy and lactation), and the elderly; emphasis on nutrition as a foundation for positive health. P: 694-300. (F)

**694-404 Food Science 3 cr.**

Nature of the food industry; properties of food components and their quality, processing, and analysis; food deterioration and safety, including methods of preservation, packaging and distribution. Field trips required. P: 225-303 or 330. (S)

**694-409 Analysis of Food and Food Products 2 cr.**

Laboratory study of principles, methods and techniques necessary for chemical analyses of food and food products. Analysis and instrumental methods related to the standards and regulations for food processing. P: 225-301 or 304 or 311. (S)

**694-421 Community Nutrition 3 cr.**

Application of nutrition concepts in community nutrition: problems at various life stages; disease prevention and community health; community nutrition programs and related legislation; assessment of nutritional needs and resources; program planning and evaluation; delivery of quality nutrition services. Field trips required. P: jr st and 694-300. (F)

**694-481 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**694-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**694-484 Senior Honors Project 3 cr.**

*See Courses with Variable Content.*

**694-485 Advanced Human Nutrition 3 cr.**

Physiological and biochemical principles of nutrition; theoretical concepts of human nutrition and nutritional diseases. P: 694-300; cr or conc enroll in 225-330 or 225/694-328. (FE)

**694-488 Nutrition in Disease 3 cr.**

Therapeutic applications of nutrition in treatment of human diseases, emphasizing appropriate medical terminology, etiology, biochemical and clinical manifestations of disease conditions, and the design of nutrition plans for treatment of disease. P: 225-331 or conc enroll; 694-485. (SO)

**694-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**694-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**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. (F)

**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. (F)

**736-104 Freedom and Individuality 3 cr.**

The notions of freedom and individuality and their significance for an individual in a complex and highly structured society. (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. (S)

**736-106 Pacifism and Violence 3 cr.**

The value and possibility of the pacifist desire to eliminate violence from human affairs, examined through reflection upon possible sources, types and functions of human violence. (F)

**736-111 Elementary Logic 3 cr.**

Recognizing and judging the validity of various types of reasoning, especially those which are employed in nontechnical contexts. (F)

**736-207 Philosophy and Literature 3 cr.**

Issues shared between philosophy and literature as reflected in literary works; the nature and meaning of literature for an understanding of the world.

**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. (F)

**736-209 Reason and Passion; Philosophical Issues in Film 3 cr.**

The tension between reason and passion in human life. Topics include tolerance, justice, truth and practicality examined through readings, lectures and selected films. (J)

**736-210 Civilization and Culture 3 cr.**

Investigation of the value to humans of being civilized 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? (S)

**736-211 The Arts and Human Existence 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. (S)

**736-212 Philosophy of Science 3 cr.**

The classical positions and current controversies in the philosophy of science. (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 the Western philosophical tradition. Rec: 736-101 or 102. (F)

**736-214 Modern Philosophy 3 cr.**

Major thinkers and movements representative of philosophical thought from the 17th century to the present. Rec: 736-213. (S)

**736-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**736-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**736-301 Criticism of Values 3 cr.**

An examination of the possibility of adopting any value or set of values, including such issues as the nature of value, the ability to know value, and the problem of change and endurance of values as developed in works by various traditional and contemporary authors. Rec: jr st and one course in philosophy. (SO)

**736-304 American Philosophy 3 cr.**

Major thinkers and ideas in the American philosophical tradition; discussion of the views of Peirce, James, Royce, Dewey and Santayana; distinctly American schools and movements such as transcendentalism, naturalism, pragmatism, and instrumentalism. Rec: jr st and one course in philosophy. (FO)

**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. Rec: course in philosophy. (FE)

**736-324 Contemporary Philosophy 3 cr.**

Current philosophical movements in Europe and America, such as phenomenology, existentialism, analytic philosophy, intuitionism, pragmatism and Marxism. (SE)

**736-325 Marxist Humanism 3 cr.**

Study of Marx's writings, concentrating on his concern for the value of human life and activity; topics include alienation, class struggle, historical process, and the relation of the individual to society. Rec: course in philosophy. (SE)

**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. Rec: course in philosophy. (FE)

**736-403 Major Philosophic Figures and Issues 3 cr.**

In-depth study of selected major philosophic figures and issues in the history of Western thought. P: upper-level course in philosophy. (SO)

**736-406 Philosophical Problems in the Sciences 3 cr.**

Philosophical examination of the logic and knowledge claims of the various natural and social sciences: questions of their foundations and assumptions and their interpretations of nature, the social world, and the human individual. Course offered with variable content. Rec: 2 courses in philosophy. (FO)

**736-478 Senior Distinction in Philosophy 3 cr.**

See Courses with Variable Content.

**736-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**736-497 Internship 3-12 cr.**

See Courses with Variable Content.

**736-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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. (F,S)

**742-116 First Aid and Emergency Care Procedures 2 cr.**

Information and practical training in Red Cross, medical self help, and emergency medical procedures. American Red Cross certification available. (F,S)

**742-117 Cardiopulmonary Resuscitation 1 cr.**

Causes and effects of respiratory, cardiac and circulatory insufficiencies and arrests are explored as well as appropriate emergency care responses. Students develop resuscitation skills on adult, child and infant mannequins. American Red Cross certification available. (F,J,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. (F,J,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. (F,S)

**742-123 Exercise Leadership I 1 cr.**

Formal, concentrated and progressive calisthenics based upon the U.S. Army's physical readiness program. Students learn to lead group exercise. The physical readiness test is administered. Includes information on weight control, cardiovascular training, posture, etc. (F,S)

**742-124 Conditioning Through Running 1 cr.**

Designed for the individual who prefers a program of vigorous exercise to one of primarily recreational nature. Emphasizes cardiovascular benefits of running and the practical application of various types of running to improve physical fitness. (F,S)

**742-137 Rhythmic Aerobics 1 cr.**

A self-paced, self-monitored exercise program emphasizing cardiovascular endurance. Routines use basic locomotor skills, dance steps and vigorous floor exercises set to music. (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. (S)

**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. (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-add scoring, U.S.T.A. rules, care and selection of equipment. (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 courtesies, equipment, and common strategies. (F,J,S)

**742-171 to 184 Officiating (sport) 1 cr.**

Provides interpretation of the rules and officiating mechanics of a specific sport in preparation for students to become officials. Class members are encouraged to register with the Wisconsin Interscholastic Athletic Association.

Approved courses are:

179 Officiating Softball/Baseball (SO)

181 Officiating Swimming and Diving

183 Officiating Volleyball (SE)

**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. (J)

**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. (F,S)

**742-204 Lifesaving 1 cr.**

Principles and techniques of personal safety, victim rescue, resuscitation, preventive lifeguarding, small craft safety, and first aid. Red Cross Advanced Lifesaving certification available. P: 742-201. (F)

**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: 742-204. (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. (F,S)

**742-212 Sailing I 1 cr.**

Sailing terminology, kinds of boats, water safety, and practical sailing experience. Individualized instruction is given in boats. Designed for those with little or no previous sailing experience. Special fee of \$10. (F)

**742-213 Sailing II 1 cr.**

Advanced techniques of sailing including safety, weather, and navigation. Special fee of \$10. P: 742-101.

**742-221 Slimnastics I cr.**

Variety of conditioning programs, including diet and exercise techniques for attaining desired weight and figure goals to improve and maintain a positive body image. (F,S)

**742-222 Nautilus Training I cr.**

A resistance training program based upon the constant resistance concept and using Nautilus equipment to enhance strength and flexibility. (F,S)

**742-223 Exercise Leadership II I cr.**

Participation in the formal calisthenics program and personal assessment and design of exercise program. Students learn leadership and elements of counseling for personal exercise; nutrition, stress control and environmental considerations. Physical readiness test is administered. P: 742-123. (S)

**742-248 Karate II I 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 I cr.**

Improves basic skills and develops intermediate skills such as the loop swing, tip-spin ground strokes, spin serve, one-half volley, drop volley, drop shot, approach shot, and more advanced strategy for both singles and doubles. P: 742-154. (S)

**742-259 Racquetball II I 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. (F,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. (J)

**742-403 Organization and Administration of Athletics 2 cr.**

Various phases of organizing and administering an interscholastic athletic program with application to athletics in nonacademic environments as well (e.g. boys' clubs, tennis clubs). (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 2 cr.**

Prevention, physical conditioning, strapping, properly fitted and designed equipment, condition of the competition site, conduct of practices, and respect of existing injuries; estimating the nature and 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. P: 742-405. (S)

**742-410 to 434 Principles of Coaching 2 cr.**

The materials, drills, offenses, and defenses of specific sports gained through the literature of the field, personal interviews and observations, staff lectures and/or conferences. P: cons inst. (F,J,S)

**742-435 to 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 cooperating coach. Student coach maintains daily log and consults with and is observed by CCP adviser. P: 742-410/434. (F,J,S)

**754 Physics****754-103, 104 Fundamentals of Physics I, II 5, 5 cr.**

A noncalculus 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 sciences and technology. 754-104 requires field trip. Graduation credit will not be awarded for both 754-103, 104 and 201, 202. P for 103: 600-104, or 2 years hs algebra and enhanced ACT math score of 27 or higher. P for 104: 754-103. (F,S)

**754-141 Astronomy 3 cr.**

A study of the solar system, stars, galaxies and universe. Field trip required

**754-180 Physical Science 3 cr.**

Survey of physics, including motion, forces, momentum, energy, solids, liquids, gases, sound, heat, electricity, magnetism, light, atomic and nuclear physics. Designed for nonscience majors; credit will not be awarded to students who have taken 754-103, 104, 201 or 202. (F,S)

**754-181 Physical Science 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: cr or conc enroll in 754-180. (F,S)

**754-201, 202 Principles of Physics I, II 5, 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. 754-202 requires field trip. Graduation credit will not be awarded for both 754-201, 202 and 103, 104. P for 201: 600-202. P for 202: 754-201 and cr or conc enroll in 600-203. (F,S)

**754-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**754-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**754-315 Classical Mechanics 3 cr.**

Mechanics of static and dynamic systems. Topics include motion in two and three dimensions, conservation laws, rigid body motion, accelerated coordinate systems, generalized coordinate systems and the Lagrangian and Hamiltonian equations. P: 754-202 and 600-209. (SE)

**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: cr or conc enroll in 754-317. (FO)

**754-320 Thermodynamics and Kinetics 3 cr.**

See 225-320.

**754-321 Structure of Matter 3 cr.**

See 225-321.

**754-322 Thermodynamics and Kinetics Laboratory 1 cr.**

See 225-322.

**754-323 Structure of Matter Laboratory 1 cr.**

See 225-323.

**754-404 Electricity and Magnetism 3 cr.**

An advanced approach to electrical and magnetic phenomena; plasmas, waveguides, electrical energy generation and transmission, Maxwell's equations and electromagnetic waves, electric and magnetic properties of matter. P: 754-202 and 600-209. (FE)



**754-405 Electronics for Scientists 3 cr.**

Fundamentals of electronics; electronic elements, basic circuits, combinations of these into measurement and control instruments. P: 600-202; 754-104 or 202. (SE)

**754-415 Solar and Alternate Energy Systems 3 cr.**

See 362-415.

**754-417 Nuclear Physics and Radiochemistry 3 cr.**

See 225-417.

**754-418 Nuclear Physics and Radiochemistry Laboratory 1 cr.**

See 225-418.

**754-455 Microprocessors and Digital Electronics 3 cr.**

See 266-455.

**754-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**754-497 Internship 3-12 cr.**

See Courses with Variable Content.

**754-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

**778 Political Science****778-100 Introduction to Political Science 3 cr.**

The major areas of modern political science: political philosophy and theory, including methodology; comparative government; political development and change, including revolution; international relations and politics; the balance of power, liberty and freedom, justice and equality. (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 the courts. (F,S)

**778-202 Introduction to Public Policy 3 cr.**

Contemporary issues in American public policy; separation of factual and value issues in policy debate; reasoning underlying evaluation of policy arguments; evaluation of data in policy arguments; influence of political ideologies on consideration of policy alternatives. Examines substantive American policies such as the economy, energy, environmental quality, and welfare and social issues. (F,S)

**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.

**778-218 Political Behavior 3 cr.**

An introduction to political behavior, including political socialization, public opinion, personality and politics, the mass media, and political participation. (J)

**778-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**778-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**778-301 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. P: 778-101 or 950-202. (S)

**778-305 Urban Politics and Policy 3 cr.**

Structures and operations of city governments and their responses to policy issues such as education, employment, social welfare, housing, transportation, migration, racial discrimination, urban sprawl and social inequality. P: 778-101 or 950-200. (S)

**778-306 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. P: 778-101 or 202 or 950-202. (FO)

**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 presidential leadership. P: prior course in political science; Rec: 778-101. (SE)

**778-314 Administrative Law 3 cr.**

See 950-376.

**778-316 American Legislative Process 3 cr.**

Legislative institutions and policies, emphasizing the U.S. Congress. The role of legislatures 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: prior course in political science; Rec: 778-101. (S)

**778-320 Constitutional Law 3 cr.**

The law of the U.S. Constitution as it has been developed by decisions of the U.S. Supreme Court: the constitutional framework, federalism, separation of powers, limitations upon the powers of the United States and of the states imposed by the guarantees of rights and liberties to individuals made in the Constitution and amendments to it. Rec: 778-101.

**778-330 Law and the Judicial Process 3 cr.**

Courts as institutions of government and law as an instrument of government: the judiciary in the American system of government, the nature of the judicial process, judicial decision-making and policy-making, compliance with judicial policies, and theories of law and jurisprudence. P: prior course in political science; Rec: 778-101. (FO)

**778-340 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: prior course in political science; Rec: 778-100. (F)

**778-351 Comparative Political Systems 3 cr.**

Comparative political analysis, stressing the politics and government of major European nations and the Soviet Union. P: prior course in political science; Rec: 778-100. (SO)

**778-353 Politics of Developing Systems 3 cr.**

Political processes in contemporary developing systems, with particular attention to problems of nation-building, the formulation of cross-national comparisons, and emerging patterns of regional cooperation. P: prior course in political science; Rec: 778-100. (SE)

**778-360 International Politics 3 cr.**

An overview of international politics, including an analysis of "the national interest," the nation-state systems, nationalism, arms control and disarmament, international conflict and conflict resolution. Examples are drawn from both American and non-American perspectives. P: prior course in political science; Rec: 778-100. (F)

**778-368 Geopolitics of World Regions 3 cr.**

See 834-368.

**778-370 Foreign and Defense Policies 3 cr.**

The major foreign and military problems facing the U.S. The organization and role of the military in American life; strategic and tactical military theory; the intelligence community, alliance politics, and the foreign policy-making process in the U.S. and an assessment of its effectiveness. P: prior course in political science; Rec: 778-100. (SE)

**778-378 Geography of Conflict Areas 3 cr.**

See 416-378.

**778-408 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. P: 778-101 or 202 or 950-202. (F)

**778-410 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: prior course in political science; Rec: 778-101.

**778-483X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**778-497 Internship 3-12 cr.**

See Courses with Variable Content.

**778-498 Independent Study 1-4 cr.**

See Courses with Variable Content.

**820 Psychology****820-102 Introduction to Psychology 3 cr.**

Understanding of behavior from psychophysiological, cognitive, social and clinical perspectives; important issues, methods and findings in the study of psychological processes. (F,S)

**820-202 Introduction to Social Psychology 3 cr.**

Attitude formation and change, group processes, communication, roles, multiple group membership, social prejudice and other aspects of social psychology. Rec: soph st. (F,S)

**820-205 Psychology of Human Adjustment 3 cr.**

Personality adjustment and maladjustment in normal persons; need, frustrations and conflict; adjustive techniques; analysis and rehabilitation. (F,S)

**820-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**820-290 Environmental Psychology 3 cr.**

Human-environment relationships; examines ways in which the physical environment influences human behavior. P: one prior course in social sciences. (F)

**820-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**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.**

Nature of perceptual processes and their functional relationships to environments, behavioral, and central factors such as motivation, learning and personality. P: jr st; 820-102 or 481-210. (F)

**820-308 Physiological Psychology 3 cr.**

The biological bases of behavior. Basic sensory, motor, and brain mechanisms in reference to normal and abnormal behaviors; drugs and hormone effects on infants and adults. P: 820-102 or 481-210 or 478-102.

**820-309 Psychology of Motivation 3 cr.**

Initiation and direction of behavior; role of physiology, personality and environment in motivation; conflict, persistence and change of motives; social motivation of achievement. P: jr st; 820-102 or 481-210. (F)

**820-311 The Psychology of Sports and Exercise 3 cr.**

The psychological aspects of involvement in sports: relationship between participation in physical activity and psychological variables such as mental health, affiliation, aggression and motivation; the role of sports in society. P: 820-102 or 202 or 900-202; Rec: 478-102 and 255-205.

**820-335 Psychology of Attitude and Public Opinion 3 cr.**

Analysis of attitudes; social factors in the formation and change of attitudes; expression of attitudes in public opinion, voting and consumer behavior; polling techniques and problems. P: jr st. (S)

**820-337 Social Behavior Dynamics 3 cr.**

Important factors in social behavior, roles, multiple-group membership, cognitive processes, motivation, aggression, social prejudice. P: soph st and 820-202. (F,S)

**820-415 Organizational Psychology 3 cr.**

Relation between social structure and psychological behavior; problems of leadership styles, communication networks, decision-making processes and group productivity. P: jr st. (F,S)

**820-416 Psychology of Intergroup Relations 3 cr.**

Psychology of conflict and cooperation, cleavage and integration. Principles and applications in such contexts as industrial organizations, cross-generation adjustments, race relations and international relations. P: jr st. (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 st; 820-102 or 481-210. (S)

**820-420 Tests and Measurements 3 cr.**

See 481-420.

**820-425 Advanced Physiological Psychology 4 cr.**

Brain and behavior: current concepts, issues and methods in neuroscience are developed through landmark discoveries from neurons to drugs to brain transplants. P: 820-308.

**820-429 Theories of Personality 3 cr.**

See 481-429.

**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: jr st; 820-102 and 300 and one upper division 820 course. (J)

**820-435 Abnormal Behavior 3 cr.**

See 481-435.

**820-438 Group Dynamics 3 cr.**

Psychological principles as they apply to the individual in social groups; experimental analyses of group formation, maintenance, morale and productivity. P: jr st. (F)

**820-450 Health Psychology 3 cr.**

Psychosocial aspects of the health-illness continuum, including stress and coping, health promotion, lifestyle and health, factors in using health services, and issues of psychological adaptation to chronic illness and pain. P: 820-102 or 202 or 300.

**820-466 Clinical and Community Psychology 3 cr.**

Typical activities, social functions, major theories, history and future trends of clinical and community psychology; evaluates effectiveness of typical activities and discusses programs of study and training, licensing qualifications and occupational opportunities for aspiring psychologists. P: 820-102. (S)

**820-483X Selected Topics 1-4 cr.***See Courses with Variable Content.***820-490 Problems in Environmental Psychology 3 cr.**

In-depth study of one or more selected areas in environmental psychology. P: 820-290 or two lower division psychology courses.

**820-497 Internship 3-12 cr.***See Courses with Variable Content.***820-498 Independent Study 1-4 cr.***See Courses with Variable Content.***834 Regional Analysis****834-102 World Regions and Concepts: A Geographic Analysis 3 cr.***See 416-102.***834-220 Introduction to Regional Analysis 3 cr.**

Examines choices that people can and must make in the use of the limited space and resources available to them to satisfy their needs. Includes methods of defining regions, as based upon human activities and the nature of the total environment. Field trip required. (F,S)

**834-222 The Ocean of Air: Weather and Climate 3 cr.**

Fundamental processes of the atmosphere, the resulting weather and climate, and the effects of the atmosphere on other aspects of the earth's environments and on humans. (F,S)

**834-281 Student-Led Courses 1-4 cr.***See Courses with Variable Content.***834-283X Selected Topics 1-4 cr.***See Courses with Variable Content.***834-298 Independent Study 1-4 cr.***See Courses with Variable Content.***834-309 Urban and Regional Economic Theory 3 cr.**

Basic concepts in the economics of regions and urban areas, including industrial location theory, central place theory, land rent theory, economic base theory and input-output analysis, and their applications in problems of economic development, urbanization, and place prosperity. P: 298-203; Rec: 298-202.

**834-322 Regional Planning 3 cr.**

The concept of planning, the history of its use in the development of regions, and the present status of planning in the United States, with some international comparisons. P: jr st. (F)

**834-323 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)

**834-325 Behavior in Designed Environments 3 cr.**

How the physical development of indoor and outdoor living spaces, including their location, form, and design, influence and shape human behavior. Contributing variables and techniques of measuring environment-behavior relationships. P: 820-102 or 202.

**834-335 Transportation Systems in the United States 3 cr.**

Intercity transportation systems in the United States, their development, impact, present character, problems and trends. P: soph st. (S)

**834-340 Economics of Land Use 3 cr.**

Economic relationships between humans and land. Principles governing land use and conservation and the institutional arrangements of this basic resource. Application of principles in policy-making in land valuation, taxation and zoning in the context of regional economic development. P: jr st. (S)

**834-342 Community Economic Development 3 cr.**

Various 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: jr st. (F)

**834-350 Geographic-Land Information Systems 3 cr.***See 416-350.***834-356 Environmental Impact Analysis 3 cr.**

Procedural requirements of the National Environmental Protection Act; state NEPA equivalents; interdisciplinary approaches to environmental impact analysis, assessment of alternatives; social science and natural science approaches to substantive types of impacts, emphasizing social impact analysis. P: jr st. (F)

**834-365 Impressions of South Africa 3 cr.**

South Africa is examined from a variety of perspectives—those of the Africans, the colonial administrators, the entrepreneurs, and the world community—to understand how different peoples, each with their own values, technology and institutions, have created the spatial variations and conflict in Southern Africa. P: 416-102.

**834-368 Geopolitics of World Regions 3 cr.**

Impact of geographic factors on political behavior and relationships, including concepts such as political space, political territoriality, the organization of space, the nature of boundaries, and movement and migration as political and social processes. Rec: 778-100. (F)

**834-372 Analysis of the Great Lakes Region of North America 3 cr.**

A systematic analysis of the areas surrounding the Great Lakes of the United States and Canada; internal and external relationships, economic activities, regional change and problems. P: soph st. (S)

**834-377 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 trip required. P: soph st. (F)

**834-392 Analysis of South Asia 3 cr.**

Regions of South Asian countries in various stages of development. Emphasis on the interaction of physical and human resources. P: soph st. (J)

**834-395 Seminar: Transportation Systems in Wisconsin 3 cr.**

An analysis of the character of intercity rail, highway, water, pipeline, and air transportation in Wisconsin, including existing problems and evaluation of plans for the future. P: jr st. (J)

**834-421 Techniques and Methods of Regional Planning 3 cr.**

The application of basic tools for urban and regional planning; sources of quantitative data and other information; techniques and methods of analysis of population, economics, land use, housing and transportation. P: jr st. (S)

**834-454 Remote Sensing of the Environment 3 cr.***See 362-454.***834-472 Senior Research Colloquium 3 cr.**

A seminar focusing on regional problems relating to land use, economic development, outdoor recreation, transportation, or other topics; includes professional quality student research projects. P: sr st. (F,S)

**834-478 Senior Distinction in Regional Analysis 3 cr.***See Courses with Variable Content.***834-481 Student-Led Courses 1-4 cr.***See Courses with Variable Content.***834-483X Selected Topics 1-4 cr.***See Courses with Variable Content.***834-484 Senior Honors Project 3 cr.***See Courses with Variable Content.***834-497 Internship 3-12 cr.***See Courses with Variable Content.***834-498 Independent Study 1-4 cr.***See Courses with Variable Content.*

## 867 Senior Seminars

### 867-401 The Role of International Organizations 3 cr.

Examines the role of international organizations in support of scientific and cultural developments, including working conditions and nature of activities as well as the global problems and decision-making processes involved. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

### 867-402 Images of Woman and Man 3 cr.

Western man has created clear-cut images of woman and man as interdependent (but not equal) opposites. These complex, far-reaching, and powerful strategies for organizing experience are examined. Alternatives to traditional modes of treating men and women are considered and continuity and change debated. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J,S)

### 867-406 Science and the Quality of Life 3 cr.

Students conduct indepth analyses on the impact of selected scientific and technological developments on the quality of contemporary life using the analytic tools developed in their respective concentrations/majors. This process helps students develop expertise in practical problem analysis and communicating. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

### 867-410 Biopolitics 3 cr.

A study of "biology" and its possible effects on society; biologists and their attitudes toward ethical practices in research; the applications of research findings and the relation of political and national concerns to science and research; and the desires, attitudes and welfare of society related to "biology." P: sr st; no prior cr for or conc reg in any Senior Seminar.

### 867-412 The Impact of Science and Technology on Society 3 cr.

Examines technology from both historical and present day perspectives and makes projections for the future, and attempts to examine the responsibility of science and technology to society and vice versa. Mechanisms used by government, industry, and the public for maintaining and developing responsible technology are also examined. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

### 867-413 Imagination and Myth 3 cr.

Instead of presenting myths as false stories or repositories of ancient beliefs, this course investigates their ongoing potential to shape culture. Focusing on traditional American Indian stories and their metamorphosis into contemporary literature, it shows how to recognize, interpret and evaluate the power of myths. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

### 867-415 Applied Imagination 3 cr.

Examines the nature and uses of a variety of practical means for defining and creatively developing solutions for contemporary problems of a largely tangible nature. Emphasis is on developing logic, scientific and personal creativity and using these to make decisions. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

### 867-418 Science as Metaphor 3 cr.

Students examine use of metaphor in explanations of various aspects of the world in which we live. Examples are taken from natural science and other fields depending on particular student expertise and interest. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

### 867-420 The Organization in Modern Society 3 cr.

Examines the role of the modern organization in society. Attention is focused on evolution of the organization as a framework for accomplishing individual, organizational, and societal goals and on the environment—external and internal—that influences the organization in fulfilling its purpose. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

### 867-421 Science Fiction and the Future 3 cr.

Examines probable and improbable alternative futures as viewed through the work of leading science fiction writers. Special attention to moral and ethical implications of new technology, new forms of social control and organization, changing religious perspectives, and new lifestyles. P: sr st; no prior credit for or conc reg in any Senior Seminar. (F,S)

### 867-424 Stereotypes and Minority Groups 3 cr.

Explores why human beings stereotype each other and why society creates minority groups; how stereotypes affect those who stereotype and those who are stereotyped; how the maintenance of minority groups affects the oppressors and the oppressed; and what we should do about stereotyping and maintenance of minority groups. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F,J,S)

### 867-426 The Search for an Ideal Community 3 cr.

Examines the kinds of ideal communities envisioned by a variety of groups from a variety of cultures. Explores the values inherent in such planning and the problems addressed by planners. Field trip required. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

### 867-430 Value, Reason, and Action in Art and Society 3 cr.

An examination of the concept of action in abstract and applied contents. We begin with a philosophy of action, move to the function of action in art, then consider historical actions from the disciplines represented within the seminar, and end with the design, perpetration, and evaluation of selected actions. P: sr st; no prior credit for or conc reg in any Senior Seminar. (F)

### 867-432 Rebels and Their Causes 3 cr.

This seminar focuses on the lives and rebellions of individual figures of the modern world. After introductory lectures and readings, each student selects one rebel from the period of 1780-1990 ("the long revolution") and researches the historical context, life, and significance of the actions of that rebel. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F,J)

### 867-433 Cultural Evolutionism: A Predictive Model of the Future 3 cr.

The theory of cultural evolutionism is presented and several hypotheses are drawn from it and applied to designated problem areas in modern industrialized cultures around the world. Students examine various implications derived from testing this theory based upon their individual interests and research efforts. P: sr st; no prior cr for or conc reg in any Senior Seminar.

### 867-435 American Rural Society and Social Change 3 cr.

Examines general issues and trends in social change and American rural society and agriculture in historical and contemporary perspective. Students make seminar presentations focusing upon rural social and agricultural issues in Wisconsin. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

### 867-439 Topics in Human Rights 3 cr.

Explores the basic question of what human rights are or should be and the social engineering that might be required to effectively implement a human rights policy. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F,S)

### 867-440 Global Arms Control and Alternative Investments 3 cr.

The world cannot afford unending hostility: the cost of "defense" is more than a trillion dollars and these expenditures have not succeeded in either maintaining or increasing any nation's sense of security. This seminar examines ways to establish and verify arms control agreements and it seeks alternative investments for the improvement of the quality of life. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

### 867-441 Worldviews: Perceptions That Shape Actions and Values 3 cr.

This seminar assumes that people (and indeed societies) adhere to a worldview by which they make sense of their lives and act consistently. This seminar will explore some worldviews and encourage students to explore contemporary problems within this conceptual framework. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

**867-442 Language: Power and Style 3 cr.**

Examines the powers that different styles of language, including professional jargon, have on us and asks students to formulate and understand the consequences of various attitudes towards their own use of language. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

**867-443 The Scientific Perspective and the Human Self Image 3 cr.**

Examines the scientific method and its impact on humans' view of themselves and their social institutions. This course studies the fundamental assumptions, processes and limitations of science on personal identity, family and human experiences such as love, altruism and free will. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

**867-444 Liberal Learning and Decision Making 3 cr.**

Explores the question, "what is there about liberal learning which affects the quality of decision making?" This seminar focuses on such dimensions as critical thinking, information processing, empathy, and commitment. Students will be able to relate their prior studies to decisions of both personal (career/life) and policy issues. P: sr st; no prior cr for or conc reg in any Senior Seminar.

**867-445 Conservatism 3 cr.**

Conservatism as value, attitude, belief, program and ideology, emphasizing English and American political and cultural traditions; the historical development of the concept since the eighteenth century, and its application to current issues. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

**867-446 Varieties of Educational Experience 3 cr.**

Through reading and discussion of biographies and autobiographies, this course studies the purposes and outcomes of education. Focuses on relationships between informal and formal learning, between the purposes of individuals and purposes of schools, and on the outcomes of educational interactions and tensions. P: sr st; no prior cr for or conc reg in any Senior Seminar.

**867-447 Indian Treaty Rights 3 cr.**

Federal Court-awarded treaty rights for Indians have created great controversies. This course studies the antecedents and consequences of such decisions and their underlying issues, such as interest group politics, state-federal relations, and natural resource allocation. P: sr st; no prior cr for or conc reg in any Senior Seminar. (S)

**867-448 Lost and Found Landscapes 3 cr.**

Acquaints the senior student with the objects, concepts, and ways of living that have been lost through time but which deeply affect the way we arrange our present world. In addition, the student will learn to use primary and secondary sources in local history and cultural geography and gain an appreciation for the past that lies about us. Field trip required. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

**867-449 Common Differences in American Culture 3 cr.**

Examines American culture through a comparison of middle class, Indians, black, Chinese, and Jewish Americans. Students analyze various sources of tension and conflict, including gender, race ethnicity, and generation, and explore how these conflicts have been, or might be, resolved. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

**867-451 Time: Biophysical and Sociocultural Perceptions 3 cr.**

In one aspect or another, time-study cuts across all disciplines. This seminar introduces students to the comparative study of time which is of fundamental importance in science, religion, philosophy, literature, history, and mythology. P: sr st; no prior cr for or conc reg in any Senior Seminar. (F)

**867-452 Societal Impacts of Disturbing the Earth 3 cr.**

Modern society is still challenged by natural or human-induced disturbances of Earth's physical systems, such as major earthquakes and global warming. The causes, impacts and possible solutions of several contemporary problems having wide-ranging implications will be examined from an inter-disciplinary perspective. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

**867-453 Moral and Ethical Values in Drama 3 cr.**

The course focuses upon various dilemmas in selected plays and films in order to explore and examine current ethical issues. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J,S)

**867-454 Concepts of the Individual 3 cr.**

This seminar examines the culturally important concept of the "individual" by viewing it from the perspective of many disciplines and life experiences. A major theme of the seminar is that of Individual versus Community, and where our culture stands on that continuum. P: sr st; no prior cr for or conc reg in any Senior Seminar. (J)

**867-455 Art and Society 3 cr.**

A study of the inter-relationships between art and modern society, examining both the effects of society upon art (including commissions, the arts business, and censorship), and the effects of art upon society (how society understands, reacts to, and values art and artists). P: sr st; no prior cr for or conc reg in any Senior Seminar.

**867-456 Sustainable Development 3 cr.**

Contradictions and possibilities resulting from incompatibilities of social and economic goals and systems with global and regional ecosystem, human, and physical constraints. Global, industrial, regional, and third world case studies.

**867-457 Water and Society 3 cr.**

The role of water in present and past societies in both developed and developing nations. Current trends and emerging issues are identified and evaluated from different points of view including economics, technology, environment, and religion. P: sr st; no prior cr for or conc reg in any Senior Seminar.

**867-458 From Conflict to Cooperation: The European Community 3 cr.**

Past, present, and future changes in the European Community from socio-economic, political, and cultural perspectives, with emphasis on current and potential connections between Wisconsin and the European Community. P: sr st; no prior cr for or conc reg in any Senior Seminar.

**875 Social Change and Development****875-203 Prejudice and the Human Condition 3 cr.**

Origins, functions and consequences of prejudice in relation to intergroup competition and conflict; impact of prejudice on the victims; potential means for reducing the role of prejudice in human relations. P: 820-102 or 202 or 156-100 or 900-202. (S)

**875-204 Freedom and Social Control 3 cr.**

What freedom means in formal or legal terms; review of the ways in which day-to-day freedoms are compromised; discussion of legitimate uses of freedom and social control. (FO)

**875-235 Perspectives on Human Sexuality 3 cr.**

Study of human sexuality from the perspective of several disciplines. Examines theories of sexuality, changing, sexual attitudes and behaviors in the context of gender and ethnicity, varieties of sexual expression, legal issues, sexual offenses, sex industries, and ethics. P: one course in social sciences. (S)

**875-241 Women and Changing Values 3 cr.**

Traditional restrictions placed on women and men in family roles, sexual behavior, economics, politics and religion; discussion of possible new roles and values; whether traditional values and roles are still valid; how individuals can adapt to change.

**875-265 Folk Music and Social Change 3 cr.**

Folk and popular music as a form of socio-political expression and protest in modern societies. Explores a variety of musical developments in different countries to understand the history of common people through their songs and the socio-political movements which accompanied them.

**875-270 Third World: Development or Despair 3 cr.**

Causes and consequences of development and underdevelopment in selected nations and regions; examines themes such as natural resources, imperialism, neocolonialism, population, education, food and fuel, employment, health and political power, and possible futures for the futures for the world's poor. P: 156-100 or 298-202 or 778-100 or 900-202 or 448-100 or 416-102.

**875-273 Blood, Honor and Envy: Values in Southern Europe 3 cr.**

Examines some values themes found in historical and contemporary society in southern Europe, including honor and shame, family loyalty, envy, male and female relationships, and political organization. P: 156-100 or 900-202. (F)

**875-275 The Vietnam War in Historical Perspective 3 cr.**

The conflicts and upheavals in Indochina from World War II to the present, especially the Vietnam War and the role of the United States in Indochina, its effects, and the Indochinese context of revolution and change. Rec: soph st. (J)

**875-281 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**875-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**875-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**875-303 Criminal Justice Process 3 cr.**

Issues concerning policing, the court system and the system of corrections: ethical problems such as police use of deadly force, police corruption and brutality, nature and scope of plea bargaining, disparities in sentencing. P: 900-202 or 820-102 or 156-100 or 778-100. (S)

**875-320 Constitutional Law 3 cr.**

Interpretations of the Constitution and the development of U.S. legal system. The law as a parameter and a mold of processes in society; current trends in constitutional law, implications for our development, and social options available if different interpretations occur. Rec: 778-101.

**875-325 Law in Society 3 cr.**

The place of law in society and in relationship with other social institutions, as viewed from historical and cross-cultural perspectives.

**875-330 Law and the Judicial Process 3 cr.**

*See 778-330.*

**875-333 Social Change in Selected Areas 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: two lower-level courses in political science, economics, anthropology, sociology or history. (F,S)

**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; socioeconomic variables which have shaped women's place in the economic system; strategies for change. (F)

**875-342 Women, Myth and Identity 3 cr.**

Archetypal and mythological images of women and their influence upon contemporary images of women and their roles. Prevailing images of women in our own and other cultures and discussion of their universality. (S)

**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 900-202 or 448-100. (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 the current status of such areas as property rights, family law and employment opportunity; legal tools in the struggle for equality. P: soph st.

**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 298-202 or 203 or 778-100 or 900-202. (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 values implicit in them. Rec: 156-100 or 900-202 or 448-100 or 493-202. (F)

**875-375 Women's Strategies for Change 3 cr.**

Differing theoretical approaches to change for women provide a framework for examining alternative strategies, their assumptions and effects. Reading and discussion of a range of personal, economic, political, social and global issues compelling efforts toward change. P: course in women's studies and jr st.

**875-380 Families and Sexuality: Politics and Public Policy Issues 3 cr.**

*See 481-380.*

**875-400 Environmental Law 3 cr.**

*See 950-378.*

**875-440 Women and Religion 3 cr.**

Historical view of organized religions in the Judeo-Christian tradition and their influence in shaping roles and rules for women and men. Rec: 493-101 or 102 or course women's studies. (F)

**875-454 Crime, Madness and the Family 3 cr.**

Areas of sociological and psychological continuity in the experiences of crime and madness. Themes are interpersonal and existential rather than biological and medical. Theoretical and case study approaches are applied to these areas of human maladaptation. P: 900-202 or 820-102; Rec: 900-404 or 304. (S)

**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 361 or 900-302 or 307. (S)

**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, Variable content. Repeatable for 3 credits only. P: 875-360 and 361. (S)

**875-478 Senior Distinction in Social Change and Development 3 cr.**

*See Courses with Variable Content.*

**875-481 Student-Led Courses 1-4 cr.**

*See Courses with Variable Content.*

**875-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**875-484 Senior Honors Project 3 cr.**

*See Courses with Variable Content.*

**875-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**875-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

## 892 Social Services

### 892-202 Introduction to Social 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. (F)

### 892-205 Personal Values and Social Reform 3 cr.

See 493-205.

### 892-257 Introduction to Counseling Skills and Techniques 3 cr.

Developing and increasing skills and awareness required for competent behavior as a helping person. P: must be a resident 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. Rec: 778-101 and 493-205. (F)

### 892-281 Student-Led Courses 1-4 cr.

See *Courses with Variable Content*.

### 892-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

### 892-300 Field Experience in a Social Service Agency 1-3 cr.

Introductory exposure to working in a social services agency; professionally supervised program of observation and assistance in the agency. P: conc enroll in 892-305 or 370. (F,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: admission to BSW major. (F)

### 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. (J)

### 892-370 Social Work Methods I 3 cr.

Applications of concepts important to the understanding of individual, group, organizational and community dynamics to generalist 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, 403 Field Practicum I, II 5, 5 cr.

Actual social service work through placement in a social service agency. P for 402: conc enroll in 892-411. P for 403: 892-402 and conc enroll in 892-420. (F,S)

### 892-411 Social Work Methods II 4 cr.

Applications of social work methods to stimulate the clients and the placement agency into greater effectiveness in the direction of their goals; dual focus of client change and organizational change using general problem-solving methods. P: 892-370. (F)

### 892-420 Social Work Methods III 4 cr.

Theory and methods of planned change interventions; implementation of change efforts across client systems of all sizes; integration and relationship of theory to field practicum experience. P: 892-411. (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)

### 892-460 Program Evaluation 3 cr.

Introduction to the principles of program evaluation research, including design and implementation of research projects. P: 892-411 and 255-301. (S)

### 892-481 Student-Led Courses 1-4 cr.

See *Courses with Variable Content*.

### 892-483X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

### 892-497 Internship 3-12 cr.

See *Courses with Variable Content*.

### 892-498 Independent Study 1-4 cr.

See *Courses with Variable Content*.

## 900 Sociology

### 900-202 Introduction to Sociology 3 cr.

Major sociological concepts and ideas and their application to contemporary problems of societies. (F,S)

### 900-203 Minority Groups 3 cr.

The character of racial, religious, and ethnic minority groups; social and economic adjustments in American society; the role of private and public agencies. P: 900-202 or 156-100 or 820-202. (F)

### 900-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

### 900-298 Independent Study 1-4 cr.

See *Courses with Variable Content*.

### 900-302 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. (SE)

### 900-303 Race and Ethnic Relations 3 cr.

Comparative study of race and ethnic relations in the United States and other countries. Theories of race relations and ethnic stratification and the importance of these issues in national and international perspective. Case studies of ethnic relations in countries such as South Africa, Brazil, Malaysia, Lebanon, and the former Soviet Union are emphasized. P: 900-202 or 203 or intro level social science course. (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. (F)

### 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. (SO)

### 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. P: 900-202 or 481-210 or 156-100 or 820-202; soph st. (F)

### 900-311 Collective Behavior and Social Movements 3 cr.

Structure and processes of crowds, social movements and masses; societal contexts and relationships to social change. P: 900-202. (SE)

### 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. P: 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. P: 900-202 and one 300-level sociology course. (S)

**900-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**900-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**900-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**915 Theatre****915-283X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**915-298 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**915-483X Selected Topics 1-4 cr.**

*See Courses with Variable Content.*

**915-497 Internship 3-12 cr.**

*See Courses with Variable Content.*

**915-498 Independent Study 1-4 cr.**

*See Courses with Variable Content.*

**Acting****915-131 Beginning Acting 3 cr.**

Develops a basic organic approach to acting technique through theatre 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 enroll in 915-235/335. (F)

**915-133 Performing for Non-Majors 3 cr.**

Introduction to basic acting and performing techniques through class exercises. Acting style and technique are also analyzed through attendance at two or more public performances. (F,S)

**915-141 Movement for Theatre 2 cr.**

Techniques in self-awareness, body warmups, breathing, nonverbal communication, improvisation; basic dance forms of ballet, modern and jazz as they relate to musical theatre. (F)

**915-231 Intermediate Acting 3 cr.**

Scene work in realistic dramas; practice in techniques of script analysis and character development. Repeatable to 6 cr. P: 915-131 and conc enroll in 915-235 or 335. (F)

**915-233 Voice for the Actor 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 enroll in 915-235/335. (F)

**915-305 Audition Techniques for the Actor 3 cr.**

Preparation of classic and contemporary monologues and scenes, professional resumes and photos; dealing with the business aspects of establishing a career as an actor. P: 915-131 and conc enroll in 915-235/335. (S)

**915-331 Advanced Acting 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 enroll in 915-235/335. (F)

**Dance****915-128 Beginning Jazz Dance 2 cr.**

Introduces the beginning dance student to the techniques, theories and practice of the jazz genre. Repeatable to 6 cr. (F,S)

**915-137 Beginning Ballet 2 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 6 cr. (F,S)

**915-138 Continuing Beginning Ballet 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. P: 915-137. (S)

**915-145 Beginning Modern Dance 2 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 6 cr. (F)

**915-228 Intermediate Jazz Dance 2 cr.**

Continued study and execution of the style and techniques of jazz dance. Study of the styles of major choreographers in American musical theatre. Repeatable to 8 cr. Rec: conc enroll in either ballet or modern dance. (F,S)

**915-237 Intermediate Ballet 3 cr.**

Progression from Elementary Ballet with more complex rhythmical, spatial and technical problems. Introduction of pointe work for women. Repeatable to 8 cr. Rec: two semesters of ballet. (F,S)

**915-245 Intermediate Modern Dance 2 cr.**

Progression from Elementary Modern Dance with more complex technical problems; understanding and executing major modern dance styles. Repeatable to 8 cr. P: 915-145. (F)

**915-340 Dance History 2 cr.**

Origins and chronological development of dance styles, including ballet, modern, jazz, musical theatre and social dance. Major works and personalities influencing dance from aboriginal cultures to the present day. (SO)

**915-440 Choreography 2 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 237 or 245. (SE)

**Technical Theatre****915-220 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 enroll in 915-235/335. (S)

**915-221 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. P: conc enroll in 915-235/335. (F)

**915-222 Theatre Production Techniques II: Costume/Makeup 3 cr.**

Organization and operation of theatre productions: costuming, makeup, and introductory costume design. Participation in a theatre production (minimum 40 hours) required. P: conc enroll in 915-235/335; Rec: 915-221. (S)

**915-224 Scenography: Introduction to Theatre Design 3 cr.**

Theatrical design, specifically scenic, lighting and costume design; the visual interpretation of theatrical literature. P: 915-221, 222 and conc enroll in 915-235/335; Rec: 242-141 and 142. (F)

**915-321 Scene Design 3 cr.**

Practical techniques of scene design: mechanical drawing, rendering and model building for the theatre. Develops ability to create the visual and mechanical environment to support the presentation of theatre pieces. P: 915-224 and conc enroll in 915-235/335; Rec: 915-221, 222. (SE)



**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. P: 915-224 and conc enroll in 915-235/335; Rec: 915-221, 222. (FO)

**915-323 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. P: conc enroll in 915-235/335; Rec: 915-221, 222. (F)

**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. P: conc enroll in 915-235/335; Rec: 915-221, 222. (FE)

**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 enroll in 915-235/335.

**915-424 Advanced Technical Practices 3 cr.**

Modern theatre technology: electronics, optics, scene painting, pattern drafting and stage mechanics and the artistic potentialities of these technologies. Participation in a theatre production (minimum 40 hours) required. Repeatable up to nine credits. P: 915-221, 222 and conc enroll in 915-235/335. (F,S)

**Theatre History/Literature/Criticism****915-235, 335 Performance Practicum 1-3 cr. ea.**

Participation in a theatre production with the opportunity to become involved in areas of greatest interest. May include technical work as well as performance in plays on or off campus. Repeatable each semester. P for 335: jr st. (F,J,S) *own take up to 3 cr. combined*

**915-309, 310 Theatre History I, II 3, 3 cr.**

Theatre art and craft: its functions in and significance to the different cultures in which it has thrived. P: conc enroll in 915-235/335. (F,S)

**915-351, 352 Directing I, II 3, 3 cr.**

Theories and techniques of theatrical staging and relationship of the director to the actors. Study of dramas, dramatists, critics and directors; staging and directing exercises. P for 351: conc enroll in 915-235/335; P for 352: 915-351 and conc enroll in 915-235-335; Rec: six prior cr in theatre. (F,SO)

**915-403, 404 Seminar in Theatre Arts 3, 3 cr.**

Individual or small group study focused on a specific area or areas of theatre interest of various periods and cultures. P: conc enroll in 915-235/335; Rec: 12 cr in theatre arts courses.

**915-405 Theatre Management 3 cr.**

Theatre management at the professional and nonprofessional levels; organization and classes of professional and nonprofessional theatres; financial or business management; box office procedures; promotion and publicity techniques and strategies. P: conc enroll in 915-235/335; Rec: six cr in theatre arts courses. (SE)

**915-409 Theatre Criticism 3 cr.**

Major statements in western theatre criticism from the Greeks to the present. The approach is one of historical development, together with applied criticism. Required for theatre majors. P: 915-309, 310 and conc enroll in 915-235/335. (SE)

**950 Urban and Public Affairs****950-200 Introduction to Urban Studies 3 cr.**

The richness and complexity of the human experience in the modern city. Examines the city as an arena in which interrelationships between enduring human concerns and social institutions are expressed and asks how the city influences these as well as how the established institutions and concerns influence the city. (F,S)

**950-201 Problem Analysis and Decision Making 3 cr.**

Theories and methods for identifying and analyzing problems and issues and developing alternative problem-solving strategies; the role of facts and values in problem identification, criteria for distinguishing between private and public problems, skills in problem analysis and problem-solving. (S)

**950-202 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. Models of the policy process are also considered. (F,S)

**950-210 Drawing Systems for the Designer 3 cr.**

The theory and practical application of various drawing systems, including orthographics, axiometrics, and perspectives, and their use as aids in the design process. Rec: 168-106. (J)

**950-215 Introduction to Public Administration 3 cr.**

Examines the principal tools and methods for conducting public affairs, the external and internal elements affecting public agencies, and the role of these elements and the human dimension in creating and implementing public policies and programs. P: 778-101 or 202 or 950-202. (F)

**950-281 Student-Led Courses 1-4 cr.**

See Courses with Variable Content.

**950-283X Selected Topics 1-4 cr.**

See Courses with Variable Content.

**950-298 Independent Study 1-4 cr.**

See Courses with Variable Content.

**950-302 Urban Behavior 3 cr.**

The life that people live in cities and how we perceive and form impressions about urban areas, how we use and interact with others in these urban areas. P: 950-200 or 820-102.

**950-303 Urban Sociology 3 cr.**

The social and psychological consequences of urban life and the political and economic forces which resulted in the modern city and urban problems such as crime, poverty, housing and public services. P: 950-200 or 202 or 900-202. (F)

**950-306 Regulatory Policy and Administration 3 cr.**

See 778-306.

**950-309 Urban and Regional Economic Theory 3 cr.**

Basic concepts in the economics of regions and urban areas, such as industrial location theory, central place theory, land rent theory, economic base theory, and input-output analysis; applications to problems of economic development, urbanization and place prosperity. P: 298-203; Rec: 298-202.

**950-313 The City Through Time and Space 3 cr.**

Analysis of human settlement and the influence of social, economic and technological change on urban structure and the aesthetic qualities of cityscapes in historical and cross-cultural settings. P: 950-200. (S)

**950-315 Public and Nonprofit Management 3 cr.**

Governance institutions, implementation structures, and social action networks which are intended to achieve public purposes. Management approaches, techniques, values and analysis are considered. P: 778-101 or 950-202; Rec: 950-215.

**950-323 Asian Americans 3 cr.**

Review of Asian immigration to the United States; formation of ethnic communities; prejudice and discrimination against Asian groups; current issues affecting Asian Americans. P: 900-202, 203, 156-100, 493-211, 950-200.

**950-324 Hispanic Americans 3 cr.**

Review of Hispanic immigration to the United States; formation of ethnic communities; diversity of Hispanic ethnic groups; current issues affecting Hispanics such as immigration policy and bilingual education. P: 900-202, 203, 156-100, 493-211, 950-200.

**950-325 Behavior in Designed Environments 3 cr.**

How the physical development of indoor and outdoor living spaces, including their location, form and design, influence and shape human behavior; contributing variables and techniques of measuring environment-behavior relationships. P: 820-102 or 202.

**950-330 Environmental Politics and Policy 3 cr.**

See 778-301.

**950-331 Urban Politics and Policy 3 cr.**

See 778-305.

**950-344 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. (S)

**950-351 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: jr st; 778-101 or 202 or 950-200 or 202. (F)

**950-363 Urban Aesthetics 3 cr.**

The physical and visual form of the American urban place. The city is analyzed as a response to the aesthetic and value systems of its inhabitants to the history of American urbanization and to those bureaucratic systems which impact its form. Field trips required. P: jr st and 950-200.

**950-376 Administrative Law 3 cr.**

Administrative law in the American federal (intergovernmental) system: fundamentals of administrative law; connections between administrative law issues and issues of public policy; and legal dimensions of administrative problems. P: 778-101 or 950-200.

**950-378 Environmental Law 3 cr.**

An overview of major environmental laws, including their historical development, structure and implementation by federal, state and local agencies. P: 778-101, 100, or upper-level course in political science or public administration. (S)

**950-402 Resource Economics Analysis 3 cr.**

See 298-402.

**950-406 State and Local Government 3 cr.**

The structure and operation of state and local governments and their administration of public policies and programs; emphasizes issues of importance to each level, the interaction between levels, and Wisconsin as a case study. P: 778-101 or 950-215. (J)

**950-408 Public Policy Analysis 3 cr.**

See 778-408.

**950-409 Public Finance and Fiscal Policy 3 cr.**

See 298-306.

**950-412 Urban Planning 3 cr.**

Examines planning theory, focusing on models of rationality, valuation processes, political decision-making, governmental structure and fiscal policies. P: 950-200; Rec: 778-101 or 950-202. (F)

**950-415 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 202 or 950-202 or 215. (S)

**950-420 Health Care Policy and Administration 3 cr.**

Contemporary health care problems in the United States, emerging controversies in public policy, and challenges to effective health care management; strategies for dealing with major health care issues in the 1990s and beyond. P: 950-201 or 202.

**950-430 Seminar in Ethics and Public Affairs 3 cr.**

A capstone course for all students in Urban and Public Affairs. Students deal with ethical issues and varied responses to them through theoretical and case study readings and applied projects. P: 12 cr in Urban and Public Affairs courses and jr or sr st. (F)

**950-436 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. P: 168-106; Rec: 950-210.

**950-437 Environmental Design Studio II 3 cr.**

See 242-437.

**950-438 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 programs and produce policies, plans, and designs. P: 242/950-437.

**950-439 Environmental Design Studio IV 3 cr.**

See 242-439.

**950-451 Decision Theory and Methods 3 cr.**

Quantitative and qualitative dimensions of decision-making; usefulness of various theories and methods of making decisions in individual, group, organizational and policy-making contexts. P: 255-205 or 600-260. (F)

**950-452 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: 255-205 or 600-260. (S)

**950-461 Urban and Public Affairs Laboratory 3 cr.**

A multi-disciplinary investigation into a public policy issue selected from areas within urban studies, public administration, and Environmental Policy and Planning. Includes issues such as political processes, environmental policies, and urban social issues, including housing and transportation and policy planning. P: written cons inst. (J)

**950-481 Student-Led Courses 1-4 cr.**

See *Courses with Variable Content*.

**950-483X Selected Topics 1-4 cr.**

See *Courses with Variable Content*.

**950-484 Senior Honors Project 3 cr.**

See *Courses with Variable Content*.

**950-497 Internship 3-12 cr.**

See *Courses with Variable Content*.

**950-498 Independent Study 1-4 cr.**

See *Courses with Variable Content*.

# ADMISSION

## 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 assist its staff to assess an applicant's preparedness to successfully complete college level work, the University has set standards for students seeking admission.

Although the University 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 on a fully matriculated or probationary and conditional basis.

### Enrollment Limitations

As with other University of Wisconsin campuses, UW-Green Bay has an enrollment limit set by System administration. Because of this limit, students who meet minimal requirements for admission may be placed on a waiting list or denied admission due to capacity limits. Also, early admission is a necessity. For fall 1993, the application priority date is February 1 for freshmen and March 1 for transfer and reentry students.

## Requirements for New Freshmen

To qualify for admission to UWGB, a student should:

- be a graduate of a recognized high school or its equivalent (as defined by University of Wisconsin Policy);
- submit official ACT scores;
- rank in the upper half of the graduating class;
- present 16 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)	2 credits
Science	2 credits
Academic Electives*	3 credits
Other Electives**	2 credits
<b>TOTAL</b>	<b>16 credits</b>

\*From the areas of English, speech, advanced math, social studies, science and 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 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 TOEFL score of at least 500.

### Other Ways to Qualify

UW-Green Bay also accepts its obligation to respond to the educational needs of special groups of students. Specific requirements for such groups are used by the admission 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 such applicants based on factors described in the following. Admission will not be granted based on meeting a single criterion.

—An ACT composite score of 20 or greater; or

—A score above 60th percentile on the School and College Ability Test (SCAT) and the California Achievement Test—Reading, and demonstration of acceptable writing ability; or

—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; or

—Consideration for returning adults, minorities, 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 and are two years beyond their high school graduation date based on:

—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 60th percentile on the School and College Ability Tests (SCAT) and the California Achievement Test—Reading, and demonstration of acceptable writing ability.

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.

**Educational opportunity program.** This program provides extra academic assistance to a limited number of specially selected handicapped or low-income or first generation college students who have the potential to succeed in college but who lack some of the necessary background knowledge or skills. Assistance is provided through orientation, personal advising, academic skills development courses, and tutoring. The admissions review committee will consider for admission applicants who:

—meet general high school graduation requirements or their equivalent.

—take the campus admission tests and score above the 40th percentile on the SCAT and California Reading, and demonstrate basic readiness for college work.

—meet EOP participation guidelines and be recommended for the program after interview with EOP staff.

**Green Bay Correctional Institute program.** The admissions review committee will consider for admission applicants who are:

—high school graduates or equivalent.

—receive satisfactory score on admission tests (scoring above the 40th percentile on the SCAT and California Reading).

—present recommendation of program coordinator.

Enrollment at UW-Green Bay while at GBCI does not provide for automatic continued enrollment when released. Students must reapply as regular matriculants.

## Admission Status

The admission review committee 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 16 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 which do not rank students) GPA is 2.8 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 which do not rank students) GPA is 2.5 or better, plus ACT composite score is 20 or higher.

## Transfer Admission Requirements

Students who have attended college after high school graduation may transfer to UW-Green Bay provided that the college work has been successful. Because of enrollment limitations, all students who meet the minimum requirements below may not be able to be accommodated. 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 UWGB freshman admission requirements, and if they would not have attained a suspension action had they earned the same academic record at UWGB.

Students are 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 will likely be placed on a waiting list for transfer admission if their grade point average is between 2.00 and 2.49 and they have not earned 24 transfer credits. (University of Wisconsin Center students who have completed the associate degree will be directly admitted with a minimum grade point average of 2.00.)

## Application Procedures for Degree-Seeking Students

**Application.** Degree-seeking students applying to UWGB 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 UWGB, or any of the UW System campuses.

**Transcripts.** New freshmen must request that a copy of the high school transcript be sent directly to the Office of Admissions at UWGB. 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, and therefore may receive a permit to register before high school graduation. The University must receive a final copy of the transcript when such students graduate.

Others may be asked to provide grades through the senior year to assist the admissions review committee in making the best possible evaluation of their potential for achievement.

Students who hold GED diplomas must have an official score report for the GED and a partial transcript from any regular high school attended sent directly to UWGB by the agency or school.

Transfer students must request that official transcripts be sent directly to UWGB 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 UWGB.

All students who have attended nursing, business, and vocational and technical schools must submit those transcripts as well. (Transcripts from 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 UWGB credit for the courses. Credits earned in a noncollege parallel program at a vocational-technical college generally are not transferable to UWGB. Students who took general education and/or liberal arts courses from such institutions are encouraged to seek credit through examination at UWGB. An exception is for students who have completed associate degrees since 1988 at vocational-technical colleges. They may be able to transfer up to 15 credits of general-education coursework.

**Dates.** Application dates for admission are tentative and may change depending upon enrollment capacities. Applications submitted after priority dates below may not be considered if enrollment limits have been reached.

### Fall Semester

New freshmen: September 15 through January 31

Transfer and reentry: September 15 through February 28

### January Interim

All students: September 15 through December 15

### Spring Semester

All students: September 15 through December 15

### Summer Session

All students: September 15 through May 15

**Fee.** A non-refundable \$10 application fee is required of anyone applying for admission as 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.

## ACT Scores

Current, official American College Testing (ACT) 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 and mathematics;
- special students who want to enroll in an English composition or mathematics or computer science course.

Current ACT scores are scores from a test date not more than two years prior to the first day of classes for the term of enrollment.

Other students must have official ACT score reports on file, but these need not be current:

- freshman-sophomore level transfer students, even though they have satisfactorily completed at least one college-level course in English composition and mathematics;
- students seeking admission to teacher preparation programs;
- students who wish to be certified for intercollegiate athletics participation.

ACT test scores are used to provide a basis for course level placement in English composition, mathematics, and computer science; to provide alternative bases for new freshman admission; and to provide future benchmark data for assessing verbal and quantitative skills developed by freshmen and sophomores. The ACT policy also complies with University of Wisconsin System Regents policy and complies with requirements of the Wisconsin Department of Public Instruction for teacher certification candidates.

## Information for Transfer Students

### Credit Evaluations

Transfer students will receive an official credit evaluation to determine what courses and credits can be accepted to fulfill UWGB 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. Students may not be able to enroll for some UW-Green Bay courses until after credit evaluation has been completed.

Credit evaluations will be started after all transcripts have arrived at UWGB and the student has been admitted. If a student is enrolled at another college when accepted at UWGB, 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.

A student who has taken independent study courses at other institutions must supply titles and descriptions for these courses when applying to UWGB so that these can be evaluated.

### General-Education Requirements

A student who transfers to UWGB must satisfy general-education requirements by completing one three-credit senior seminar course and completing or transferring other courses which:

- satisfy English and mathematics competency requirements as determined by ACT scores or other placement test scores.
- meet the breadth requirements of nine credits each in the humanities and fine arts, natural sciences, and social sciences. At least one course focused on values or issues must be completed in one of the three areas.
- 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.

As part of the graduation requirements, English and mathematics competencies must be satisfied by one of the following: ACT test out, UWGB coursework, or transfer courses in English composition and appropriate math course.

Transfer students will be informed in writing by the Registrar's Office of their standing with respect to fulfilling general-education requirements on both the tentative and final credit evaluations. They should read the description of these requirements in the section of this catalog on general academic information.

### Transferable Coursework

Students coming to UWGB may transfer not more than 72 credits of lower-level coursework. In order to be credited as transferable coursework these criteria must be met:

- The course must be compatible with the curriculum offerings at UWGB. For example, courses such as typing and shorthand may be appropriate at a university which prepares teachers for high school business programs, but courses such as this do not fall within the scope of the UWGB curriculum.
- The course must be successfully completed at an accredited college or university.
- 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 UWGB may enroll as special students. A special student is identified as a nonmatriculated student but he or she 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's 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 UWGB may not enroll as a special student for that semester. Also, a student not in good standing at another college may be denied special student status at UWGB.

Due to severe enrollment limits, special students are limited to one course per term.

Special student categories include:

**Special (SPL):** Students who have graduated from high school or earned a General Educational Development (GED) diploma at least two years prior to the term they wish to enroll at UWGB.

**Post Baccalaureate (PBS) or Graduate (GSP) Special:** 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 UWGB.

**High School (HSO, HSP, HSS) Special:** Superior high school students may enroll for UWGB coursework while attending high school or during the summer.

High school specials must normally be seniors or juniors in high school and must rank in the upper quarter of their respective classes. Enrollment in UWGB courses requires the approval of the high school. Credits earned by students before graduation from high school will be held in escrow.

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

## Application Procedures for Special Students

**Nondegree-seeking students** applying for admission should submit a Special Student Application, available from the Office of Admissions at UWGB. Usually this is the only information required, however some individuals may be asked to submit additional records based upon individual circumstances.

**High School Special students** must submit the following materials in addition to the application:

- A. an official high school transcript.
  - B. the high school special student statement form, and
  - C. the principal/counselor recommendation form.
- (Forms "B" and "C" are available from the Office of Admissions.)

**Summer Session Only** students must submit an official high school transcript if they are current-year high school graduates.

No application fee is required of special students.

## Other Admission Information

### Adult Students and Veterans

UWGB 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 UWGB Admissions Office or the Adult Services Office.

### Teacher Preparation

Students who expect to seek teaching licensure should review the section on education programs elsewhere in this catalog. The State of Wisconsin requires that high school transcripts be on file for all students who earn licenses to teach. 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 will 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

UWGB enrolls students from about 24 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 good secondary school and proof of being a very good student. Since all UWGB 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 many major cities of the world. Information about it 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.

UWGB has an office for international student services which notifies international applicants when they have been accepted and 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 or by appearing in person before the Admission Appeals Committee. This committee meets approximately two weeks before the beginning of each semester. Students may contact the Office of Admission for exact dates and times.

## Graduate Program Admission

The basic policy of personalized admission applies to the graduate as well as the undergraduate program. The applicant's total experience is always considered. Entry as a provisional student is possible for those not meeting the minimum requirements. Evidence of success as a provisional student will gain admission to degree candidate status. Minimum requirements for entry into the degree program are:

- a baccalaureate degree.
- a 3.0 grade point in the major field of study, measured on a 4.0 scale.

Candidates for entry must submit:

- a completed application form, including a statement of the student's intended area of study and educational objectives;
- a transcript of grades for all previous undergraduate and graduate work;
- three letters of recommendation;
- an application fee of \$20;
- non-native English speakers must submit a TOEFL score;
- international applicants must submit proof of financial support.

The graduate program is summarized in the section of this catalog on academic programs. A separate catalog is available describing the program in detail.

# COSTS

## Tuition and Fees

The University publishes a fee schedule each semester. It is available from the Office of the Registrar. Fees vary depending upon the student's state residence, undergraduate or graduate classification, and full-time or part-time enrollment. In addition to general tuition and fees, students are assessed special course fees for certain classes, particularly for studio art courses. The Board of Regents reserves the right to change tuition and fees without notice.

When they register, students should obtain an up-to-date fee information schedule which specifies fee payment dates and procedures; costs; and refund and fee assessment dates.

The following fee information applied to spring semester 1992. It can be useful in estimating average costs of attending the University on a semester basis. The new fee schedule printed each semester shows actual costs.

A part-time undergraduate student registering for 11 credits or fewer pays on a per credit basis. Per credit payment applies to a part-time graduate student registering for eight credits or fewer. In 1991-92, Wisconsin undergraduate students paid \$76.00 and graduate students paid \$126.25 per credit. Nonresident undergraduate students paid \$236.75 and graduate students paid \$338.25 per credit for part-time enrollment. Minnesota undergraduate students paid \$88.25 per credit and graduate level students paid \$127.50 per credit.

All fees and tuition are due at the time of registration and for regular semesters must be paid on or before the Friday of the first week of classes. Late payment penalties go into effect after that date. Information about fees, including late payment penalties and the refund schedule for official withdrawal or reduction of credits is contained in the *Timetable*.

## January Interim

Students enrolling for the January interim do not pay additional fees if they are registered full time in the preceding or following semester unless total credits exceed the full-time plateau of 12-18 credits. If enrolled for less than full time, fees are assessed at the regular per-credit rate.

## Summer Session

Fees for summer session are based on the number of credits elected and are subject to change without notice by the Board of Regents. Summer fee schedules are announced in the *Timetable* or a separate fee information sheet.

Costs Per Semester	Undergraduate Student	Graduate Student
Spring Semester, 1992		
<b>Tuition and Fees</b>		
Wisconsin Resident	\$ 903.25	\$1,128.00
Non-Resident	\$2,730.25	\$3,396.00
Minnesota Resident	\$ 970.00	\$1,100.00
<b>Books and Supplies</b> (average)		
	\$ 235.00	\$ 235.00
<b>On Campus Housing</b> (double occupancy)		
	\$ 616.00	\$ 616.00
<b>On Campus Food Plan</b>		
Plan A	\$ 450.00	\$ 450.00
Plan B	\$ 600.00	\$ 625.00

**Total undergraduate cost** per semester for a Wisconsin resident living on campus **\$2,204.25** (Food Plan A)

Note: Students will need additional funds for transportation, clothing, personal, medical and miscellaneous expenses. Students living at home with parents and students living off campus will have variable costs which are considered in establishing the financial aid budgets used to determine need.

# FINANCIAL AID

## Objectives

The primary objective of the Student Financial Aid Office is to assure that no academically qualified student is denied an education for lack of financial resources. Financial assistance in a variety of forms 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 enroll in a program leading to a degree;
- show financial need as determined by the institution;
- have registered with Selective Service, if required to do so;
- not be in default on a previous student loan nor owe a refund on a previous student aid grant;
- be classified as a resident of Wisconsin to be eligible for the Wisconsin state programs;
- use funds only for education-related expenses;
- notify the institution and lenders of any change of address;
- 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. Students applying for financial aid must have been admitted or be enrolled on at least a half-time basis (6 credits undergraduate; 4 credits graduate) before receiving a financial aid award. Following are specific application procedures.

- New freshmen apply for admission to the University and indicate desire to be considered for financial aid.
- Transfer students must complete an admissions application and one of the applications for financial aid. Also, financial aid transcripts must be sent from all postsecondary institutions attended whether or not aid was received.
- All students obtain a needs analysis document—either a Financial Aid Form (FAF) or a Family Financial Statement (FFS)—from the high school counselor or the Financial Aid Office. Complete and submit the form as soon as possible to the appropriate processor as instructed on the form.
- Students should submit to the Financial Aid Office all copies of the student aid report received from their aid processor.
- Respond quickly and accurately to all requests for additional information.

Students who apply are considered for all types of financial aid for which they are eligible. An application for aid may be filed before the University issues a permit to register, but a student must be admitted before UWGB can make an offer of aid.

### Determination of Need

To help judge student need and award aid fairly, the University asks self-supporting students and parents of dependent students to fill out a confidential application for financial aid. This form is analyzed by one of the processing agencies and then reviewed by a counselor in the

Financial Aid Office. On the basis of this financial statement, the University can determine the difference between what the parent and student can provide and what the cost of education will be.

As part of the determination of financial need, students are expected to commit a portion of their assets toward their education expenses. In addition, students are expected to contribute through earnings.

### Aid Awards

Rarely can students meet all their expenses through one type of financial aid. Also, few loan or grant programs for undergraduate students can pay the total educational bill. This means that assistance generally must come from a combination of sources. A student may be selected to receive a loan and grant, a scholarship and a loan, a loan and a job, or some other combination. A student need not accept the whole package to receive part of it.

Awards are based on the total cost of supporting a student for an academic year. Assistance given beyond costs for fees and books should go toward meeting board and miscellaneous expenses.

Aid awards are based on the cost of full-time enrollment (12 credits for undergraduates; 9 credits for graduates) unless informed differently by the student.

### Citizenship and Residency

All aid programs require U.S. 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.

### Standards of Academic Progress

The individual student is responsible for being aware of academic standards of progress required in order to continue eligibility for financial aid. Eligibility is based upon the total number of semesters for which the student has been enrolled and on successfully completing a minimum number of credit hours within a given time span. A complete description of the University's policy and tables showing the number of credits required to continue eligibility for aid are located in the appendix to this catalog.

### Refund and Repayment

If enrollment status changes during the refund and repayment period, it is the student's responsibility to repay any funds he or she receives which cannot reasonably be attributed to meeting educational costs at UWGB. The amount of repayment is based upon Federal Department of Education regulations (paragraph 668.21 of the Federal financial aid regulations). Complete refund/repayment policy is in the appendix of this catalog.

### Deadlines

Application priority date for all financial aid is April 15. Students whose aid files are complete by the priority date are generally notified between May 1 and June 15 of their aid award or denial.

The University cannot guarantee grant, loan, or job assistance to those applying after the priority date. Late applications will be accepted and awards will be made as long as funds are available.

Late applicants (those applications not received prior to six weeks before classes begin) should be prepared to pay all of their initial expenses from their own resources. *Late payment assessments will not be waived for late applicants.*



## Types of Financial Aid

### Grants

**Pell Grant.** Federally funded grants to needy students range from \$200 to \$2,300 (determined by a federal schedule). Students who wish to apply for any financial aid are required to apply for the Pell Grant by checking a section of the FAF or FFS or completing the Federal Financial Aid Application.

**Supplemental Educational Opportunity Grants (SEOG).** Federally funded grants to students who have exceptional financial need. SEOG awards may not exceed \$4,000 in one year of undergraduate study. The actual amount a student may receive is determined by need, funding available, and University policy.

**Wisconsin Higher Education Grants.** State-appropriated grants awarded by the Higher Education Aids Board. Awards range from \$250 to \$1,800. Students may receive these funds for a maximum of 10 semesters.

**Wisconsin Indian Student Assistance Grant.** Grants of up to \$1,800 per year awarded to students of a least one-fourth Native American descent who are residents of Wisconsin. Amount of the grant is based upon financial need. Additional funds on a matching basis are available to most Indian students from the U.S. Bureau of Indian Affairs or individual tribes. The grant may be received for up to five years of study.

**Lawton Grants.** Available to sophomore, junior, or senior Black, Hispanic, Southeast Asian, or Native American students, with an annual maximum of \$2,000 and a cumulative maximum of \$8,000. The award is based on need and is intended to help reduce student indebtedness. The minority affairs coordinator assists in identifying eligible students.

**Wisconsin Talent Incentive Grants.** Need-based awards for nontraditional and disadvantaged students, determined by the Wisconsin Education Opportunity Center or the Financial Aid Office.

**Minnesota-Wisconsin Compact Fee Remission.** Nonresident fee remission for any Minnesota resident attending a Wisconsin public university. Students from Minnesota need pay only a special fee amount. Students must apply directly to the Minnesota Higher Education Coordinating Commission, Suite 901, Capitol Square, 500 Cedar Street, St. Paul, MN 55101.

**Vietnam Era Veterans Grant.** Made available to eligible Wisconsin veterans who served in the armed forces between August 5, 1964, and July 1, 1975. The yearly grant of up to \$200 for single and \$400 for married veterans is determined by a special application form.

**Vocational Rehabilitation Grant.** Aid covering tuition and books provided to students with a disability as determined by the Department of Vocational Rehabilitation. The amount is included with other financial aid. Students with disabilities should contact their regional Department of Vocational Rehabilitation.

### Loans

**Perkins Loan.** Loans may be made up to \$9,000 cumulative maximum as an undergraduate student. Interest is currently five percent and both interest and principle payments are deferred until six months after the student leaves school.

A first-time borrower after July 1, 1987, has a grace period of nine months after graduation, leaving school, or attending less than half time. Current borrowers have a six-month grace period before loan repayment begins.

Cancellation of all or a portion of the principle borrowed is available for teachers of the handicapped and mentally retarded, teachers employed in schools in low-income areas, and preschool teachers in Head Start programs. Deferments of up to three years may be obtained while serving as a Peace Corps/Vista volunteer or on active duty in the Armed Forces of the United States. Perkins Loan program regulations may be changed by Congress.

**Stafford Student Loans.** (Formerly Guaranteed Student Loans) Students may borrow under this program from participating private lending institutions, such as banks, savings and loan associations, and credit unions. The program is administered jointly by the private lending institutions, the student's home state guarantee agency, and the University.

Depending upon the total amount borrowed, the student has up to 10 years to repay the loan at a present eight percent interest rate, after he or she has permanently left school. Undergraduate freshmen and sophomores may borrow up to \$2,625 per fiscal year, juniors and seniors may borrow up to \$4,000 per fiscal year for a total maximum accumulation of \$17,250. Graduate students may borrow up to \$7,500 per fiscal year for a total aggregate amount of \$54,750.

**PLUS/SLS Loans.** PLUS loans are provided for parents, while the SLS loan is designed for independent students. Both loan programs are non-need based and provide additional funds for educational expenses. The interest rate can change quarterly and it is best to check with your lender. Like the Stafford Student Loan program, these loans may be made by a lender such as a bank, credit union, or savings and loan association.

PLUS enables parents to borrow up to \$4,000 per year, to a total of \$20,000, for each child who is enrolled at least half-time and is a dependent student. Under SLS, graduate students and independent undergraduates may borrow up to \$4,000 per year, to a total of \$20,000. The amount parents and students are eligible for is determined by the Financial Aid Office.

### Loan Counseling

Counseling on the various loan programs is available to students at any time. If a student actually borrows under Perkins or Stafford Student Loan, a minimum of one loan counseling session or interview is required before completing their course of study or at the time of their departure from the University.

Sample schedules for loan repayment are available in the financial aid award booklet and the student loan counseling booklet. Both are available at the Financial Aid Office.

Before a student accepts an offered loan, it should be reviewed. Any or all of the amount offered may be accepted. Students should not accept all of a loan if it is not needed. If a job has been offered, students are urged to accept it. Often a job is the best way to put what otherwise might be "waste time" to good use and debt may be kept to a minimum.

### Student Employment

Enrolled students may use the employment services of the office of Student Financial Aid. Students may apply 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. The University also offers assistance in locating part-time employment off campus through the Job Location and Development Program.

**College work-study.** As a part of the financial aid award, work-study is based upon financial need. Wages are paid partly by the employer and partly by the federal government. Total earnings are limited to the amount of financial need. Once the student earns the allowable amount, employment must cease or be switched to regular part-time employer.

**Regular employment.** Students may apply and be employed on campus as jobs are available. However, students whose financial need has been met by aid programs may not earn additional funds on campus without an adjustment to their financial aid award. Off-campus jobs are listed on the bulletin board outside the Financial Aid Office.

**Job Location and Development (JLD).** The JLD program solicits and posts part-time job opportunities for students from off-campus employers. Information about the jobs is obtained in the Student Employment Office.

The rate of pay for student jobs on and off campus generally ranges from \$3.80 to \$18 an hour. The exact rate depends on the complexity of the job. The chart below shows possible expected earnings (before taxes and other deductions) in a school year of about 34 weeks.

Hours worked weekly at \$3.80 per hour:

10 hours	\$1,292
12 hours	\$1,550
15 hours	\$1,938

### 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.

**War Orphans Educational Assistance.** The War Orphans Educational Assistance Act provides educational benefits for children of permanently disabled or deceased veterans. The veteran must have died or become disabled as a result of service in the Armed Forces during the Spanish-American War, World War I, or since September 15, 1950.

**Financial aid for graduate students.** Financial aid in the form of teaching assistantships, which carry a stipend of about \$6,392 and provide eligibility for waiver of out-of-state tuition, are available to graduate students by applying directly to the Office of Graduate Studies. Work-study, regular employment, and student loans are also available to graduate students by means of the regular financial aid application process.

**Advanced Opportunity Grant.** The Advanced Opportunity Grant is available to graduate minority students. The amount of the grant varies and eligibility is determined by a prioritizing scale.

### Scholarships

Scholarships for students who attend UWGB come from many sources and recognize a variety of talents, achievements, interests, and needs. Some scholarships are available to new students, some are available to continuing students, and others may be awarded to students in both categories. Amounts of the scholarship awards vary. Students who want specific information about scholarships should contact the Financial Aid Office.

Following is a list of UWGB scholarships by name:

Alumni Association Scholarship  
 Arthur Atkisson Memorial Scholarship  
 G. Harvey Benham Memorial Scholarship  
 Frank Byrne Memorial Fund  
 James E. Casperson Memorial Scholarship  
 David Christenson Memorial Fund  
 Victor Crambeau Education Fund  
 Coryl Crandall Memorial Scholarship  
 Thomas E. Daniels Memorial Scholarship  
 Albert Einstein-Mahatma Gandhi Scholarship  
 Founders Association Adult Student Scholarship  
 Founders Association Continuing Student Leadership and Academic Excellence Scholarships  
 Founders Association New Student Scholarships  
 Friends of the Arts, Inc. Scholarships  
 German-American Society Scholarship  
 Bidwell K. Gage Memorial Scholarships  
 Lucy Pekham Gfroerer Trust  
 H. F. Hagemester Jr. Memorial Art Scholarship  
 Hugh C. and Mary Higley Scholarship  
 Johnson Foundation Research Grants  
 Herbert Fisk Johnson Awards for Excellence  
 Lucy Krehma Education Scholarship  
 Althea Steele Lederer Memorial Scholarships  
 Sidney and Ruth Morris Scholarship  
 Music Educators National Conference (MENC) Scholarship  
 Music Scholarships  
 Northeast Wisconsin Engineering Scholarship  
 William F. Prevetti Scholarship Fund  
 John M. Rose Scholarships  
 Rotary Free Enterprise Award  
 Walter and Gertrude Scherf Scholarships  
 Science and Mathematics Scholarships  
 Show/Jazz Choir Scholarships  
 Ralph R. Stein Memorial Scholarship  
 Theater Scholarships  
 Oliver and Margaret Trampe Scholarships  
 University League Scholarship  
 Byron L. Walter Family Scholarship  
 Wisconsin Public Service Corp.  
 Associated Kellogg Bank  
 Business Scholarships  
 Wisconsin Rural Rehabilitation Corporation Scholarship  
 Women in Business Scholarship

# ACADEMIC RULES AND REGULATIONS

## Definitions

**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. For a student in good standing, maximum load for a semester is 18 credits as of the first day of classes. Before the first day of classes, students may enroll for no more than 16 credits. A student on probation who has a grade point average of 2.0 or better is limited to 15 credits. A student on probation with a GPA of less than 2.0 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, such as athletics, financial aid, family health insurance coverage, summer employment, and loan repayment referrals.

**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 124 credits required for a bachelor's degree. Certain courses in physical education and all academic support courses do not result in degree credits 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**—due to the limitations and complexity of the physical education credit policy, such credits are withheld from computation of attempted and degree credits until all other graduation requirements are fulfilled.

**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 I 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 purpose, 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 grade basis. P-NC, incomplete, and audit grades and credits have no effect on grade point average. Only courses attempted at UWGB are included in a student's GPA.

### *Example of GPA for a Semester*

Course	Grade	Credits	Grade Points
Art 105	A	3	12
Math 104	BC	4	10
History 205	C	4	08
English 093	P	3	00
<i>(Academic Support)</i>			
<b>Total</b>		<b>11</b>	<b>30</b>

30 divided by 11 equals 2.72 grade point average

**Cumulative Grade Point Average**—GPA for all completed terms at UWGB. It is calculated by dividing the cumulative total grade points earned by the cumulative total grade point credits.

**Probation**—a nonpunitive 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 2.00 or better.

## 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 semester and cumulative grade point averages, and by quantity of work satisfactorily completed, 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 section on P-NC grading.

Since grading standards differ from institution to institution, grades received from other institutions are not used in computing grade point averages.

### Grade Point Values

Letter Grade	Grade Points Per Credit
A (Excellent)	4.0
AB (Very Good)	3.5
B (Good)	3.0
BC (Above average)	2.5
C (Average)	2.0
D (Poor)	1.0
F (Unacceptable)	0.0
WF (Unofficial withdrawal)	0.0
P (A "C" grade or better for undergraduate courses)	No effect
NC (No credit; letter grade of less than "C")	No effect
U (Unsatisfactory audit)	No effect
S (Satisfactory audit)	No effect
N (No acceptable report from instructor—temporary grade)	No effect until an acceptable grade is submitted.
I (Incomplete; temporary grade)	No effect until removed or lapsed into tentative grade assigned if required work is not completed. Work must be completed by deadline set by the instructor, or the last day of classes for the following semester, whichever comes first.

## 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. Academic suspension actions will not be taken solely on the basis of inadequate achievement in the January interim for students who were not enrolled in the fall semester, however.

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.

Tables adjacent 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. 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 one 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 fall semester may enroll in the January interim with the understanding that he or she is not eligible to continue for the spring semester unless achievements during the January interim result in a return to good standing or continued probation. 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 matriculants must meet special contractual requirements specified at the time of admission. When a CM student is removed from that status, he or she must then meet all normal requirements. The admission review committee makes determination for academic suspension actions or continued conditional matriculant status for students enrolled in that classification.

### *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 end 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 UWGB

**Credit Completion Requirement and Action**

original credit load*	credits completed	status
12 or more	8 or less	probation
9-11	5 or less	probation
6-8	2 or less	probation

### *For a Student on Probation*

**Grade Point Requirement and Action**

- 1.50 to 1.999 end of semester or term cumulative GPA results in continued probation for one term
- 1.49 or less end 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**

original credit load*	credits completed	status
12 or more	8 or less	academic suspension
9-11	5 or less	academic suspension
6-8	2 or less	academic suspension
12 or more	9-11	continued probation
9-11	6-8	continued probation
6-8	3-5	continued probation
12 or more	12 or more	return to good standing if cumulative GPA is 2.0 or better
9-11	9 or more	
6-8	6 or more	

### *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

\*calculated at the end of the course add period

## Appeals

Academic probation is a nonpunitive warning and is not subject to an appeal.

Academic suspension status may be appealed to the vice-chancellor for academic affairs through his or her designated representative, the associate vice-chancellor for institutional research. The vice-chancellor may seek advice from the academic actions committee. 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. Suspended students may seek appropriate noncredit remedial help, and reassess their goals in the context of the academic achievement record they have compiled. Appeals must include a clear explanation of the problems that resulted in inadequate achievement and a statement explaining how the student proposes to resolve those problems.

Students planning appeal should consider:

- Are the relevant facts and dates clearly stated and documented?
- Are the extenuating circumstances cited of an inforseeable nature?
- Are relevant recommendations from the instructor(s) included, if this is appropriate?
- Do statements in the appeal distinguish between needs and wants?
- Is the educational rationale for the request clearly stated?

## Limited Rights to Appeal An Academic Suspension Action

A student who earns an academic suspension action must file written appeal for an exception within seven working days from the date printed on the grade slip or the student record report. Record reports are mailed to students at the end of each term. Failure to meet the seven-day deadline results in an assumption on the part of the University that the student plans no appeal.

The University's assumption of no appeal can result in:

- cancellation of housing in University Village;
- cancellation of advance registration for the next semester.

Appeals are filed with the associate vice-chancellor through the Office of the Registrar.

If an appeal is filed before the seven-day deadline, a student can expect to know the outcome of the appeal within seven working days of the date the appeal was filed. If the student wants notification of results by mail, he or she must enclose a self-addressed, stamped envelope with the appeal. If no other arrangement is made, a student may pick up a copy of the appeal results at window 7 of the Registrar's Office.

According to academic rules and regulations, a student who is suspended at the end of the fall semester may complete the January interim and a student who is suspended at the end of the spring semester may complete the summer session. However, continuation in either of these special terms does not change the requirement to file an appeal within the seven-day deadline nor does it guarantee permission to register for the following semester.

If the appeal is denied by the vice-chancellor's designee, a student has the right of further and final appeal to the student-faculty academic actions committee providing the second appeal is filed within five working days of the denial. Second appeals should be filed at window 7 of the Registrar's Office. As a part of a written appeal, students may request a personal appearance before the committee when it meets to review the appeal. The chairperson will notify the student of the day and time of the scheduled appeals meeting.

Grade slips are mailed by first-class mail on this schedule:

**End of fall semester** on the Friday before the January interim, using the local address of record.

**End of January interim** on the Friday after the January interim, using the local address of record.

**End of spring semester** on the second Monday after the end of final exams, using the home or permanent address of record.

**End of summer session** on the Friday after the last day of classes for the eight-week session, using the home or permanent address of record.

Students may choose to have all mailings made 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. Student failure to provide a prompt forwarding or proper notification of change of address is not an acceptable excuse for exceptions in the appeal process.

## Readmission

Readmission 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 readmitted 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 and Grade Appeals

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. Information on current grading policies is sent to instructors each semester along with grade rosters.

If a student is dissatisfied and 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 concentration or professional program chairperson. The chairperson, in turn, consults with the course instructor. If a student wishes to appeal still further, he or she contacts the appropriate academic dean who also consults 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 incomplete grade is filed with two tentative grades; one indicates the quality of the work to date; the second is to be assigned if no more work is completed. A specific deadline is set for completing the work required to remove the 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. If a course is incomplete, a student's grade point average and degree credits remain undetermined until the permanent grade is established. However, 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

Seniors expecting to graduate must remove pending incompletes by the end of the sixth week of their final semester of attendance. Outstanding incompletes are considered as I grades and do not count toward degree credits or grade points for purposes of estimating eligibility for graduation and possible honors.

Students who expect to graduate in December must have all incompletes removed within 15 working days following the end of the January interim. Students who expect to graduate in May must have all incompletes removed within 15 working days following the end of the spring semester.

## Removal of Incompletes

The course instructor sets a specific deadline for removal of an incomplete and informs the student, the Office of the Registrar, and the academic unit chairperson. If no earlier deadline is specified, an incomplete (I) must be removed no later than the last day of classes for the next semester. If no other grade is submitted by the instructor within this period, incomplete grades become a permanent grade of F. The student's grade point average and earned credits reflect the F grade.

A student may file a special petition for an exception to the incomplete removal deadline if bona fide unanticipated 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.

For graduating seniors, all I grades must be converted to a permanent passing or failing grade before the commencement date. All grades on the record become permanent as of that date with no possibility for removal or change.

An incomplete grade is normally a temporary grade given due to circumstances explained in the previous paragraph.

## Repeating Courses

A student may choose to repeat any course. 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 UWGB.

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 deactivated, discontinued, or offered on a different schedule.

A course repeat card should be filed with the Office of the Registrar to ensure that a recalculation of the grade point average is completed.

## Course Prerequisites

Course prerequisites are shown in the descriptions of many courses in the *Timetable*. They 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 also designated in course descriptions by the designation Rec. Recommended courses are basically advisory and are usually lower-level courses. Students who have the knowledge or skill recommended for a course may enroll without completing prior recommended courses, but they do so at their own risk. Students can not 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.

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

## 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.

## 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 administrative 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.

## Maximum and Minimum Credit Loads

A student in good academic standing may register for any number of credits up to a maximum of 18 credits per semester after the first day of classes. No more than 16 credits may be enrolled prior to the first class day. A student is not allowed to register for credits in excess of 18 without written permission from the vice-chancellor's designee, the director of academic advising. This written permission must be gained before the first day of classes. Normally, only honors students are considered for credit overloads.

Course adds that would exceed the 18-credit maximum are not processed if prior permission for an overload has not been granted. Prior permission means approval before the first day of classes or registration, whichever occurs first.

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.

## Maximum Credit Load for Students on Probation

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 less than a 2.0 GPA is limited to four courses or 13 credits, whichever is greater.

## Course Adds and Drops

### Course Adds.

After final registration, students may add other courses to their programs if such additions do not exceed the maximum credit load limitation and if adds 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. Therefore, lack of feedback in the form of grades on papers or exams is not acceptable to justify a late drop.

If a student decides that a course does not fulfill expectations, an early drop permits the student to devote a greater portion of available study time and effort to remaining courses, and the instructor is able to devote more time and effort to students participating in the course. The six-week deadline for 14-week semester courses provides adequate opportunity to make drop decisions.

The phases of the course drop policy are:

#### Through the third day of the second week of a 14-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—

- course appears on permanent record with the symbol W (withdrew) or DR (dropped)

#### Seventh through 14th weeks—

- no official drops allowed; WF grade or F appears on transcript

See table for terms or classes of a shorter duration than 14 weeks, showing established pro rata deadlines. A course week always ends on a Friday. All courses beginning or ending on nonstandard session weeks have a nonstandard drop deadline.

### Course Drop Timetable

Course Length in Weeks	Drop Deadline—End of Course Session Week	"W" or "DR" Symbol Recorded After
1	Tuesday, Week 1	Monday, Week 1
2	Thursday, Week 1	Monday, Week 1
3	Tuesday, Week 2	Tuesday, Week 1
4	Thursday, Week 2	Tuesday, Week 1
5	Monday, Week 3	Wednesday, Week 1
6	Wednesday, Week 3	Wednesday, Week 1
7	Friday, Week 3	Thursday, Week 1
8	Tuesday, Week 4	Friday, Week 2
9	Thursday, Week 4	Friday, Week 2
10	Monday, Week 5	Monday, Week 2
11	Thursday, Week 5	Monday, Week 2
12	Monday, Week 6	Tuesday, Week 2
13	Wednesday, Week 6	Tuesday, Week 2
14 or more (normal semester course)	Friday, Week 6	Wednesday, Week 2

## Withdrawal From the University

A student who desires to withdraw from all academic course work at any time after completing the study list request form or final 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, the sixth week of an eight-week summer session, or the second week of January interim. 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 fourth day of week two 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

A student may receive permission to drop a course or 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.

Under the circumstances above, a counselor in the Student Counseling and Development Office or an adviser in the Office of Academic Advising may grant permission for a late drop or withdrawal. If a student has any other reason for requesting a late drop or withdrawal, he or she should direct a written appeal, stating the circumstances, to the associate vice-chancellor, who is the vice-chancellor's designee.

## 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, the first week of an eight-week summer session, or the first two days of a January interim. The P-NC request form must be filed with the study list request form, the program change form, or the final registration form.

Some courses may be elected on a pass-no credit basis if they are taken to fulfill certain requirements. These include:

- general education courses, including senior seminars;
- interdisciplinary or disciplinary major courses (300 or 400 level);
- courses used to fulfill the English composition requirement;
- professional program courses (300-400 level including all courses in the teaching majors and minors, except student teaching);
- interdisciplinary or disciplinary minor courses;
- 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. Nondegree credit courses (such as Student Support Services courses) and student teaching are offered exclusively on a P-NC basis.

If students have any doubt as to whether a P-NC graded course can count for degree requirements, they should consult the Office of the Registrar before the P-NC change deadline.

For pass-no credit, grades of A, AB, B, BC, or C, are designated "pass." The grade is recorded on the final grade slip and the permanent record cards as a P. P grades are not used in computing grade point average, but the earned credits do count toward graduation.

Grades of D, F, or WF appear on the grade slip as NC or "no credit." An NC does not affect grade point average, nor does it add to earned credits.

A student may elect P-NC grading, for example, if he or she would like to explore a completely new area of interest but cannot estimate the difficulty of the work required and the level of other students in the course.

Since instructors generally do not know which students are taking their courses on pass-no credit, they record a letter grade. The letter grade is changed to P-NC by the computer. The letter grade will be reported only upon the student's written request and the written request of an academic official from the college, university, or the prospective employer to whom the grade is being sent. Even though the grade can be released in this way, students are cautioned about taking courses on a P-NC basis.

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. Graduation and professional schools generally prefer letter grades, because such grades enable them to better judge potential for academic success.

## Program Declaration and Advisers

All students, with the exception of undergraduate and graduate specials, must have an academic adviser and should select an appropriate adviser from the listing preceding each academic program section in the *Timetable*. Student's study list request forms must be reviewed by the adviser, and will not be processed for registration without the adviser's signature of approval. All matriculated undergraduates who have 36 or more earned credits completed must select a faculty adviser. Prior to completion of 36 credits, a student has the option of seeking academic advising from the Academic Advising Office or from any faculty adviser. Since faculty advisers often are not readily available during vacation periods, students should make an effort to schedule advising appointments while classes are still in session. Faculty advisers may be available during vacation periods by appointment, at regular scheduled orientation programs, and during the "wrap-up" registration week prior to the beginning of classes. For students who have filed an approved academic plan, the requirement for an adviser's signature is waived.

Students who have not selected a major (UND-undecided) should see an adviser in the Academic Advising Office (SS 1930).



## 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 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, 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 UWGB 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 UWGB faculty or academic staff.

## Honors

### Senior Distinction in the Major

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 indicated on the academic plan for the major;
- have a minimum 3.75 GPA for all upper-level courses indicated on the academic plan for the major;
- complete a senior distinction project in the major.

Senior distinction in the major projects should be planned during the junior year. Students should enroll for honors study (478 course number) 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.

### Graduation or Degree Honors

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).

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 UWGB. Senior honors projects should be planned during the junior year. Enrollment should be completed during the first semester of registration with senior standing (84 or more degree credits) to ensure time for completion before graduation. Students should consult with faculty during the junior year to plan for special library resources, equipment, supplies, or field research that may be necessary. Honors projects must be completed by the end of the sixth week of the semester of graduation (or be certified by the sponsoring instructor that the course will be finished before the end of the semester).

## Time Limitation for General-Education Requirements

Effective with the fall semester of 1981-82, students have the right to follow the general-education requirements which were in effect at the time they first enrolled as matriculated degree candidates at UWGB. If the courses needed to complete those requirements are not available, the University will substitute other appropriate courses. Students who matriculated as degree candidates prior to fall 1981-82 should consult with the Office of Academic Advising about completion of their general-education requirements.

If new general-education requirements are implemented, students have the right to fulfill those new requirements in place of the old ones.

# FINANCIAL AID REFUND PAYMENTS

Students receiving financial aid who drop credits must repay financial aid funds they have received. The amount of repayment is based upon federal Department of Education regulations (paragraph 668.21 of the federal financial aid regulations).

Students will be notified in writing about the amount of repayment due after the Financial Aid Office is notified about the withdrawal or credit drop. **The aid must be repaid by the student before future aid may be granted.** Also, failure to repay or to make appropriate arrangements will result in a hold being placed on the release of the student's official University records.

The calculated refund amount of federal and state funds will be returned to funding sources as indicated:

Federal funds—	State funds—	Other funds—
Perkins	WHEG	BIA
SEOG	TIP	Institutional
GSL	Tuition grants	Student
PELL	WIG	
	Lawton	
	AOP	

Students enrolled for sessions of less than the usual term duration who drop credits or withdraw, shall have a proportional repayment calculated on an individual basis.

Students who wish to appeal the amount of repayment due may provide written documentation of the request and should discuss the situation with a financial aid counselor.

## *Refund and Repayment Schedule*

### Fall/Spring Semesters

Action During Week	Tuition Refund	Repayment of Aid for Noninstitutional Costs
1	100%	100%
2	80%	80%
3	60%	75%
4	40%	70%
5	0	63%
6	0	56%
7	0	49%
8	0	42%
9	0	35%
10	0	28%
11	0	21%
12	0	14%
13	0	7%
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0

### Summer Session

Action During Week	Tuition Refund	Repayment of Aid for Noninstitutional Costs
1	100%	100%
2	70%	80%
3	30%	70%
4	0	60%
5	0	45%
6	0	30%
7	0	15%
8	0	0

# ACADEMIC PROGRESS / FINANCIAL AID

The University's policy for standards of academic progress required to remain eligible for financial aid is governed by federal regulations published in the October 6, 1983 Federal Register Part 668.16. Following is a statement of the policy that has been enforced for UWGB aid recipients. It has been in effect since January 1, 1984 and revised based on the Reauthorization Education Bill signed October 17, 1986.

## Undergraduate Students

**Duration of Eligibility.** Students enrolling on a **full-time** basis (12 credits or more) are eligible to receive financial aid for a maximum of 6 years or 12 semesters. Students enrolling on a **part-time** basis (6 to 11 credits) are eligible to receive financial aid for a maximum of 11 years or 22 part-time semesters. If a student enrolls for some semesters as a full-time student and for others as a part-time student, a proportional total number of semesters will be computed. Attendance during summer session for 6 credits or more will be counted as one part-time semester.

**Credit Hours to be Completed.** A student must have successfully completed the following minimum cumulative credits by the end of the designated academic year and the minimum credits per semester as a full or part-time student. Students starting mid-year (spring term) will be reviewed for partial year compliance at the end of that term.

**Extended Degree** students must satisfactorily complete contract work in progress before new aid may be provided for an equivalent of 12 full-time semesters.

### Credit Completion Scale

Undergraduate Students Full Time			Undergraduate Students Part Time		
Year In School	Semesters Completed	Required Cumulative Credits	Year In School	Semesters Completed	Required Cumulative Credits
1	1/2	9/18	1	1/2	3/6
2	3/4	27/36	2	3/4	12/18
3	5/6	46/57	3	5/6	24/30
4	7/8	67/78	4	7/8	36/42
5	9/10	90/102	5	9/10	48/54
6	11/12	114/126+	6	11/12	60/66
			7	13/14	72/78
			8	15/16	84/90
			9	17/18	96/102
			10	19/20	108/114
			11	21/22	120/126+

Students must complete a minimum of 9-12 credits per semester depending upon year in school.

Students must complete a minimum of 3 credits for the first two semesters and 6 credits thereafter.

## Graduate Students

**Duration of Eligibility.** Graduate students enrolled in a Master's Degree program may receive financial aid for a maximum of 3 years or 6 semesters as full-time students and for a maximum of 5 years or 10 semesters as part-time students. Attendance during summer school for 3 or more credits will be counted as one part-time semester.

**Credit Hours to be Completed.** A graduate student who receives financial aid must complete a minimum of 6 credits per semester as a full-time student or 3 credits per semester as a part-time student. The student must also successfully complete the following cumulative number of credits by the end of each year.

## General Information About Aid Eligibility

**Credit hour enrollment** will be established by the number of credits for which the student is enrolled as of the end of the second week of classes for any term.

**Successful completion** means that a grade of A, AB, B, BC, C, D, or P was earned, exclusive of previously passed courses which are being retaken voluntarily.

**Other aid regulations** must be adhered to, and may limit aid awards to students because of other program regulations.

**Non-degree students (specials)** are not generally eligible for financial assistance.

**Review.** A review of each aid recipient's eligibility will be made at the end of the academic year (between spring and fall semesters). Notification of probation or ineligibility will be sent to students at that time. Students on probation will be reviewed at the end of the next semester to determine continued aid eligibility. Students will be eligible to receive aid during the initial probationary warning period.

**Ineligibility for Aid.** A student not making adequate progress will be ineligible for additional aid. In order to again become eligible for aid, the student must enroll and earn sufficient credits to regain good standing according to the credit completion scale. The student must enroll and make up the deficiency without aid before future assistance can be provided.

**Appeal Procedure.** If a student is denied aid due to lack of progress, the student may appeal the determination by writing a letter explaining the reasons for lack of progress and providing evidence of mitigating circumstances. The appeal must be submitted to the Financial Aid Office. The financial aid staff will review the appeals in committee and reach a final determination.

**Starting Point.** Effective September 1984, each student will have a semester starting point calculated from which future completion requirements will be measured. This starting point will be either the total number of semesters for which a student has been enrolled or the cumulative total of successfully completed credits, whichever is most advantageous to the student. For transfer students, the starting point will be determined by the cumulative total of successfully transferred credits.

**Completion Scale.** Based upon the required credit completion scale, the student must achieve both the cumulative total and per semester credits for the subsequent semester in order to avoid probationary or termination status.

This policy is subject to review as needed. For questions or additional information contact the Financial Aid Office (414) 465-2075.

### Credit Completion Scale

Graduate Students Full Time			Graduate Students Part Time		
Year In School	Semesters Completed	Required Cumulative Credits	Year In School	Semesters Completed	Required Cumulative Credits
1	1/2	6/12	1	1/2	3/6
2	3/4	18/24	2	3/4	9/12
3	5/6	30/36	3	5/6	15/18
			4	7/8	24/27
			5	9/10	31/36







# DIRECTORY

## Faculty

**Aaron, Jeffrey**, Assistant Professor of Education (music education); B.M., New England Conservatory of Music; M.M., Massachusetts-Amherst; Ph.D., Iowa.

**Abbott, Clifford F.**, Chairperson and Associate Professor of Information and Computing Science (linguistics); B.A., Tufts; M.A., Ph.D., Yale.

**Abrahams, Paul P.**, Associate Professor of Humanistic Studies (history); B.A., M.A., Syracuse; Ph.D., UW-Madison.

**Alesch, Daniel J.**, Professor of Business Administration (planning and decision making); B.S., M.S., UW-Madison; M.A., Ph.D., UCLA.

**Baba, Ronald K.**, Associate Professor of Urban and Public Affairs (environmental design); B.A., M.A., Southern California; Ph.D., Texas.

**Baer, Betty L.**, Associate Professor of Social Work; B.A., West Virginia; M.S.S., Syracuse; Ph.D., Pittsburgh.

**Barlow, Melissa**, Assistant Professor of Social Change and Development (criminology); B.S., M.C.J., South Carolina; Ph.D., Florida State.

**Bauer, Robert J.**, Dean of Professional Studies and Outreach and Professor of Communication and the Arts (music); B.S., M.A., Minnesota.

**Baulieu, Forrest B.**, Associate Professor of Information and Computing Science (computer science); B.S., Manhattan; M.S., Ph.D., Massachusetts-Amherst.

**Benzow, Jeffrey**, Assistant Professor of Communication and the Arts (graphic design); B.A., UW-Green Bay.

**Berk, Laurey R.**, Senior Lecturer in Business Administration (finance); B.S., UW-Madison; M.B.A., UW-Oshkosh.

**Bremer, Sidney H.**, Professor of Humanistic Studies (literature and language and women's studies); B.A., Stanford; M.A., UC-Berkeley; Ph.D., Stanford.

**Brown, R. McKenna**, Assistant Professor of Humanistic Studies (literature and language); B.A., Florida A&M; M.A., Ph.D., Tulane.

**Browning, L. DeLana**, Assistant Professor of Social Change and Development and Women's Studies (communications); B.A., North Carolina; Communication Studies, Georg-August Universität (Germany); M.A., The Annenberg School of Communications.

**Bryan, Dennis L.**, Associate Professor of Education (curriculum and evaluation); B.S., M.E., Western Michigan; Ed.D., Michigan State.

**Carleton, Francis**, Assistant Professor of Social Change and Development (political science); B.A., Elizabethtown College; Ph.D., Indiana.

**Charnon, Margaret E.**, Associate Professor of Communication and the Arts (music); B.A., Milton; M.M., Northwestern.

**Chavez, Trinidad Jose, Jr.**, Director of Choral Activities and Professor of Communication and the Arts (music); B.M.E., Eastern New Mexico; M.M.E., Wichita State.

**Chern, Jo A.**, Senior Lecturer in Humanistic Studies (composition); B.A., M.A., Ohio State.

**Clampitt, Phillip**, Associate Professor of Information and Computing Science (communications); B.A., Oklahoma; M.A., Southwest Texas State; Ph.D., Kansas.

**Clark, Orville V.**, Associate Professor of Humanistic Studies (philosophy); B.A., M.A., Oklahoma; Ph.D., Pennsylvania State.

**Cohrs, Arthur L.**, Professor of Communication and the Arts (music); B.M., UW-Madison; M.M., Rochester.

**Collins, Kevin J.**, Assistant Director of Bands and Assistant Professor of Communication and the Arts (music); B.M., Michigan; M.M., Texas-Austin.

**Conley, William C.**, Associate Professor of Business Administration (statistics); B.A., Albion; M.A., Western Michigan; M.S., Ph.D., Windsor.

**Cornelius, Carol**, Chairperson of American Indian Studies and Assistant Professor of Humanistic Studies (American Indian studies); B.S., State University of New York-Fredonia; M.A., Cornell.

**Curl, Linda**, Lecturer in Information and Computing Science (computer science); B.S., Michigan; R.N., Bellin Hospital School of Nursing; M.S., UW-Green Bay.

**Damkoehler, David L.**, Associate Professor of Communication and the Arts (art); B.S., UW-Oshkosh; M.F.A., Kent State.

**Davis, Gregory J.**, Associate Professor of Natural and Applied Sciences (mathematics); B.S., UW-Green Bay; M.A., Ph.D., Northwestern.

**Day, Harold J.**, Professor of Natural and Applied Sciences (engineering); B.S., M.S., Ph.D., UW-Madison.

**Deese, Dawson, C.**, Associate Professor of Human Biology (biochemistry); B.S., North Carolina Agr. & Tech; M.S., Tuskegee; Ph.D., UW-Madison.

**Dell, Jerry R.**, Professor of Communication and the Arts (photography); B.A., Illinois.

**Deprey, Ann**, Lecturer in Educational Support Services (composition); B.A., St. Norbert; M.A., Roosevelt.

**Doering, James**, Assistant Professor of Business Administration; B.B.A., UW-Madison; J.D., Marquette University Law School; L.L.M., New York University School of Law.

**Dutch, Steven I.**, Professor of Natural and Applied Sciences (geology); B.A., UC-Berkeley; M. Phil., Ph.D., Columbia.

**Elicker, James G.**, Assistant Professor of Human Development and Education (early childhood); B.S., Cornell; Ed.M., Harvard.

**Emmons, Carol**, Associate Professor of Communication and the Arts (art history); B.S., UW-Stevens Point; B.F.A., M.F.A., UW-Milwaukee.

**Entwistle, Jeffrey**, Chairperson and Associate Professor of Communication and the Arts (theatre); B.A., Bridgewater State; M.F.A., Michigan State.

**Erdmann, Eugenia**, Associate Professor of Communication and the Arts (theatre); B.A., M.A., Ph.D., Kent State.

**Erdmann, Louis O.**, Professor of Communication and the Arts (theatre); B.A., North Central (Illinois); M.A., Kent State; Ph.D., Ohio State.

**Fischbach, Fritz A.**, Professor of Natural and Applied Sciences (physics); B.S., M.S., Ph.D., UW-Madison.

**Fleurant, Kenneth J.**, Associate Professor of Humanistic Studies (French); B.A., Holy Cross; M.A., Ph.D., Princeton.

**Franke, Lawrence C.**, Senior Lecturer in Business Administration (accounting); B.A., Illinois-Chicago; M.S., Northern Illinois.

**Frisch, Jack E.**, Professor of Communication and the Arts (theatre); B.A., M.A., Ph.D., UW-Madison.

**Galaty, David H.**, Associate Professor of Humanistic Studies (history of science); B.A., Trinity; Ph.D., Johns Hopkins.

**Galt, Anthony H.**, Professor of Social Change and Development (anthropology); A.B., UC-Berkeley; Ph.D., UC-Riverside.

**Ganji, Vijay**, Assistant Professor of Human Biology; B.Sc., Sri Venkateswara University (India); M.Sc., National Dairy Research Institution (India); M.S., Ph.D., Nebraska.

**Gaworek, Norbert H.**, Associate Professor of Humanistic Studies (history); B.A., M.A., Ph.D., UW-Madison.

**Ghanty, A. Sam**, Associate Professor of Business Administration (finance); B.S., UW-Madison; B.S., University of Phnom Penh (Cambodia); M.S., M.B.A., Ph.D., UW-Madison.

**Girard, Dennis M.**, Professor of Information and Computing Science (statistics); B.S., M.A., Detroit; Ph.D., Ohio State.

**Greenberg, Martin H.**, Professor of Regional Analysis (political science); B.B.A., Miami; M.A., Ph.D., Connecticut.

**Greif, Gary F.**, Associate Professor of Humanistic Studies (philosophy); B.A., M.A., Gonzaga; Ph.D., Toronto.

**Grosso, Cheryl**, Senior Lecturer in Communication and the Arts (music); B.A., UW-Green Bay; M.F.A., California Institute of the Arts.

**Ham, Jennifer**, Assistant Professor of Humanistic Studies (German); B.A., Moravian College; M.A., Ph.D., Rutgers.

**Harden, Donald F.**, Associate Chancellor and Professor of Community Sciences; B.A., M.A., Ph.D., Michigan State.

**Harris, Hallett, Jr.**, Director of Institute for Land and Water Studies and Professor of Natural and Applied Sciences (biology); B.A., Coe; M.S., Ph.D., Iowa State.

**Harris, John H.**, Associate Professor of Business Administration (management); B.B.A., UW-Madison; M.B.A., American; Ph.D., Kentucky.

**Havens, Elmer A.**, Professor of Humanistic Studies (English); B.A., Cornell College; B.D., Drew; M.A., Ph.D., UW-Madison.

**Herrscher, Walter J.**, Chairperson and Professor of Humanistic Studies (English); B.A., Elmhurst; M.A., Northwestern; Ph.D., UW-Madison.

**Heuer, Curtis P.**, Associate Professor of Communication and the Arts (art); B.A., Valparaiso; M.A., M.F.A., Northern Illinois.

**Hoehn, Carol S.**, Lecturer in Communication and the Arts (dance); B.A., Butler University.

**Holly, James N.**, Director of Business Development Center and Assistant Professor of Business Administration (organizational communication); B.S., U.S. Air Force Academy; B.S., M.B.A., Florida Atlantic; Ph.D., Illinois.

**Howe, Robert W.**, Curator of Richter Natural History Museum and Associate Professor of Natural and Applied Sciences (biology); B.S., Notre Dame; M.S., Ph.D., UW-Madison; Ph.D., New England.

**Hu, Tian-You**, Assistant Professor of Natural and Applied Sciences (mathematics); B.S., M.S., Zhongshan University (Guangzhou, China); M.A., Pittsburgh.

**Hughes, Fergus P.**, Professor of Human Development (psychology); B.A., St. John's University; M.A., Ph.D., Syracuse.

**Hussin, Brent**, Senior Lecturer in Business Administration (computer systems); B.A., M.A., UW-Green Bay.

**Hutchison, Earl Ray, Jr.**, Associate Professor of Urban and Public Affairs (sociology); B.A., Harpur College, SUNY-Binghamton; M.A., Ph.D., Chicago.

**Ihrke, Charles A.**, Associate Professor of Human Biology (biology); B.S., UW-Oshkosh; M.S., Nebraska; Ph.D., Oregon State.

**Ives, Lovell G.**, Director of Jazz Activities and Professor of Communication and the Arts (music); B.M., UW-Stevens Point; M.M.E., Vandercook College of Music.

**Jennings, Ann**, Assistant Professor of Regional Analysis (economics); B.S., M.A., Western Michigan; Ph.D., Utah.

**Johnson, Warren V.**, Associate Professor of Human Biology (biochemistry); B.A., Minnesota-Duluth; M.S., UW-Milwaukee; Ph.D., Iowa.

**Jowett, David**, Associate Director of Computer Center and Professor of Natural and Applied Sciences (statistics); B.S., Northern Wales; Ph.D., University of Wales.

**Kangayappan, Kumaraswamy**, Chairperson and Associate Professor of Regional Analysis (economics); B.A., Madras (India); M.A., Annamalai (India); M.A., Ph.D., UW-Madison.

**Kaye, Harvey J.**, Professor of Social Change and Development (sociology); B.A., Rutgers; M.A., London; Ph.D., Louisiana State.

**Kellogg, Peter J.**, Associate Professor of Humanistic Studies (history); B.S., Davidson; M.A., Ph.D., Northwestern.

**Kersten, Frederick I.**, Professor of Humanistic Studies (philosophy); B.A., Lawrence; M.A., Ph.D., New School for Social Research.

**Kline-Heim, Susan M.**, Assistant Professor of Communication and the Arts (theatre); B.A., UW-Green Bay; M.F.A., Michigan State.

**Korithoski, Theodor P.**, Assistant Professor of Education (mathematics education); B.S., Idaho State; M.A., Ed.D., Montana.

**Kraft, Michael E.**, Chairperson and Professor of Urban and Public Affairs (political science); A.B., UC-Riverside; M.A., Ph.D., Yale.

**Kubsch, Mimi**, Assistant Professor in Nursing; B.A., California State-Long Beach; M.N., UCLA; Ph.D., UW-Milwaukee.

**Kuepper, William G.**, Vice-Chancellor for Academic Affairs and Professor of Regional Analysis (geography); B.S., M.S., Ph.D., UW-Madison.

**Laatsch, William G.**, Professor of Regional Analysis (geography); B.S., Carroll; M.A., Oklahoma; Ph.D., Alberta.

**Lanz, Robert W.**, Associate Professor of Natural and Applied Sciences (engineering); B.S., M.S., Ph.D., UW-Madison.

**Larmouth, Donald W.**, Dean of Arts, Sciences and Graduate Programs and Professor of Communication and the Arts (linguistics); B.A., Minnesota; M.A., Ph.D., Chicago.

**Laughlin, Margaret A.**, Chairperson and Professor of Education (social studies education); B.A., M.A., California State-Sacramento; Ed.D., Southern California.

**Lauter, Estella**, Professor of Humanistic Studies (women's studies); B.A., Ph.D., Rochester.

**Littig, David M.**, Associate Professor of Urban and Public Affairs (political science); A.B., Indiana; M.S., Ph.D., UW-Madison.

**Lockard, Craig A.**, Professor of Social Change and Development (history); B.A., University of Redlands; M.A., Hawaii; Ph.D., UW-Madison.

**Logan, Richard D.**, Professor of Human Development (anthropology); A.B., Harvard; Ph.D., Chicago.

**Lorenz, Dennis N.**, Assistant Professor of Human Development (psychology); B.A., George Washington; Ph.D., Cornell Graduate School of Medical Sciences.

**Luchetta, Tracy**, Assistant Professor of Human Development (psychology); B.S., Illinois State; M.S., UW-Milwaukee.

**Lyon, John M.**, Assistant Professor of Natural and Applied Sciences (chemistry); B.S., Lehigh; Ph.D., Rutgers.

**Mannino, Joseph A.**, Associate Professor of Human Biology (physiology); B.S., Western Michigan; M.A., Ph.D., Wayne State.

**Marker, James C.**, Assistant Professor of Human Biology (physiology); B.S., Weber State; M.S., Utah State; Ph.D., Brigham Young.

**Marlett, Dianne**, Lecturer in Humanistic Studies (composition); B.A., Carthage College; M.A., Illinois-Chicago; M.A., UW-Milwaukee.



- Marshall, Helaine W.**, Assistant Professor of Communication and the Arts (linguistics/English as a second language); B.A., M.A., Tufts; M.Ed., Ph.D., Columbia University.
- Matter, Charles**, Associate Professor of Information and Computing Science (psychology); A.B., Lycoming; Ph.D., Washington.
- McCartney, Donald H.**, Senior Lecturer in Business Administration (marketing); A.B., Indiana; M.B.A., UW-Oshkosh.
- McIntosh, Thomas H.**, Professor of Natural and Applied Sciences (earth science); B.S., M.S., Ph.D., Iowa State.
- McLean, Ann L.**, Associate Professor of Social Work and Extension; B.A., Northern Michigan; M.S.W., Michigan; Ph.D., Tulane.
- Mehra, Anjani K.**, Professor of Natural and Applied Sciences (physics); B.S., M.S., Allahabad (India); Ph.D., I.I.T., Kapur (India).
- Mendelsohn, Robert A.**, Associate Professor of Urban and Public Affairs (psychology); B.S., Cornell; M.A., Ph.D., Michigan.
- Meredith, Sarah**, Assistant Professor of Communication and the Arts (music); B.M., Iowa State; M.M., Northwestern; D.M.A., Iowa.
- Meyer, James M.**, Lecturer in Educational Support Services (mathematics); B.S., M.B.A., Washington University; M.A., Maryland.
- Meyer, Nicole**, Assistant Professor of Humanistic Studies (literature and language); B.A., UW-Madison; M.A., Johns Hopkins; Ph.D., Pennsylvania.
- Meyer, Timothy P.**, Professor of Information and Computing Science (mass media); B.A., UW-Madison; M.A., Ph.D., Ohio University.
- Mielke, Bruce**, Associate Professor of Natural and Applied Sciences (computer science); B.S., M.S., Ph.D., UW-Milwaukee.
- Miller, Hugh**, Assistant Professor of Urban and Public Affairs (public administration); B.A., Michigan State; M.P.A., Ph.D., American University.
- Moran, Joseph M.**, Professor of Natural and Applied Sciences (earth science); B.S., M.S., Boston College; Ph.D., UW-Madison.
- Morgan, Michael D.**, Curator of Herbarium and Professor of Natural and Applied Sciences (biology); B.A., Butler; M.S., Ph.D., Illinois.
- Murphy, Michael W.**, Associate Dean for General Education and Faculty Development and Associate Professor of Humanistic Studies (English); B.A., Marquette; M.A., Ph.D., UW-Madison.
- Murray, James M.**, Director of Bureau of Business and Economic Research and Professor of Business Administration (economics); B.A., B.S., M.A., North Dakota; Ph.D., Oregon.
- Nagy, Robert A.**, Assistant Professor of Business Administration; B.B.A., St. Michael's College; M.A., Middle-Tennessee State; D.B.A., Mississippi State.
- Nair, V.M.G.**, Professor of Natural and Applied Sciences (biology); B.S., Madras Christian (India); M.S., Aligarh (India); Ph.D., UW-Madison.
- Niedzwiedz, William R.**, Associate Professor of Regional Analysis (geography); B.S., M.S., Massachusetts-Amherst; Ph.D., Virginia Polytechnic.
- Noll, Lorraine**, Associate Professor of Nursing; B.S.N., Alverno; M.S., UW-Oshkosh.
- Noppe, Ilene C.**, Associate Professor of Human Development (psychology); B.A., Lake Forest; Ph.D., Temple.
- Noppe, Lloyd D.**, Chairperson and Associate Professor of Human Development (psychology); B.A., Lake Forest; Ph.D., Temple.
- Norman, Jack C.**, Professor of Natural and Applied Sciences (chemistry); B.S., New Hampshire; Ph.D., UW-Madison.
- Null, Gilbert T.**, Associate Professor of Humanistic Studies (philosophy); B.A., UC-Santa Cruz; M.A., Ph.D., New School for Social Research.
- Obenberger, Robert W.**, Associate Professor of Business Administration (marketing); B.S., UW-Whitewater; M.S., Northern Illinois; Ph.D., Louisiana State.
- O'Grady, Terence J.**, Professor of Communication and the Arts (musicology); B.M., M.S., Ph.D., UW-Madison.
- O'Hearn, George T.**, Professor of Education; B.S., M.S., Ph.D., UW-Madison.
- Outcalt, David L.**, Chancellor and Professor of Natural and Applied Sciences (mathematics); B.A., Pomona; M.A., Claremont; Ph.D., Ohio; D.P.A., Kyung Hee University.
- Owens, Garry**, Director of Bands and Associate Professor of Communication and the Arts (music); B.M., M.M., Ph.D., UW-Madison.
- Petrakopoulos, Nikitas L.**, Associate Professor of Natural and Applied Sciences (mathematics); B.A., Columbia; M.S., Ph.D., NYU.
- Pillsbury, Cecil M.**, Assistant Professor of Business Administration; B.S., Missouri-Columbia; M.S., Illinois State; Ph.D., Oklahoma State.
- Pirozzoli, Iris**, Assistant Professor of Business Administration (accounting); B.B.A., UW-Whitewater; M.B.A., UW-Madison.
- Pollis, Carol A.**, Dean of Humanities, Social Sciences and General Education and Professor of Social Change and Development (sociology); B.A., M.A., Oklahoma; Ph.D., Oklahoma State.
- Pollis, Nicholas P.**, Professor of Urban and Public Affairs (psychology); B.A., Johns Hopkins; Ph.D., Oklahoma.
- Porter, Eileen**, Chairperson and Associate Professor of Nursing; B.S.N., Fort Hays State University; M.A., Washington; Ph.D., UW-Milwaukee.
- Prange, W. Werner**, Professor of Humanistic Studies (German); Abitur, Paedagogium Bad Godesberg (Germany); Ph.D., Bonn (Germany).
- Presnell, Richard W.**, Associate Professor of Education (environmental education); B.A., M.A., Iowa; Ph.D., Cornell.
- Prindiville, Mary D.**, Lecturer in Educational Support Services (composition); B.A., B.S., UW-Oshkosh; M.A., UW-Milwaukee.
- Pum, Janis A.**, Lecturer in Athletics and Physical Education; Women's Tennis Coach; B.S., UW-Madison; M.A., Ball State.
- Pum, Robert J.**, Professor of Communication and the Arts (art education); B.S., M.S., UW-Madison; Ed.D., Ball State.
- Rhyner, Charles R.**, Professor of Natural and Applied Sciences (physics); B.S., M.S., Ph.D., UW-Madison.
- Ritch, Donna L.**, Assistant Professor of Human Biology (physiology); B.S., M.S., Youngstown State; Ph.D., Pennsylvania State.
- Rodeheaver, Dean**, Associate Professor of Human Development (psychology); B.A., M.A., Ph.D., West Virginia.
- Rodesch, Jerrold C.**, Associate Professor of Humanistic Studies (history); B.S., UW-Madison; M.A., Ph.D., Rutgers.
- Sager, Dorothea B.**, Chairperson and Associate Professor of Human Biology (physiology); B.A., Lawrence; M.S., Iowa; Ph.D., UW-Madison.
- Sager, Paul E.**, Director of Cofrin Arboretum and UWGB Natural Areas and Professor of Natural and Applied Sciences (biology); B.S., Michigan; M.S., Ph.D., UW-Madison.
- Sagrillo, Marilyn E.**, Senior Lecturer in Business Administration (accounting); B.S., M.S., Northern Illinois; C.P.A.
- Salerno, John**, Assistant Professor of Communication and the Arts (music); B.A., MEAS, UW-Green Bay; A.D., Northern Colorado.
- Salisbury, Joyce E.**, Director of International Education and Professor of Humanistic Studies (history); B.A., M.A., Ph.D., Rutgers.

**Scheberle, Denise**, Assistant Professor of Urban and Public Affairs (political science); B.S., M.P.A., Wyoming; Ph.D., Colorado State.

**Schwartz, Leander J.**, Professor of Natural and Applied Sciences (biology); B.S., UW-Platteville; M.S., Ph.D., UW-Madison.

**Selk, Ann E.**, Senior Lecturer in Business Administration (accounting); B.B.A., M.B.A., UW-Milwaukee.

**Sell, Nancy J.**, Professor of Natural and Applied Sciences (engineering); B.A., Lawrence; M.S., Institute of Paper Chemistry; M.S., Ph.D., Northwestern.

**Sewall, Timothy J.**, Assistant Professor of Human Development and Education (psychology); B.S., UW-Green Bay; M.Ed., James Madison; Ph.D., UW-Madison.

**Shariff, Ismail**, Professor of Regional Analysis (economics); B.A., M.A., Mysore (India); Ph.D., UW-Madison.

**Shay, William A.**, Associate Professor of Information and Computing Science (computer science); B.A., St. Mary's (Minnesota); M.A., Ph.D., UW-Milwaukee.

**Sherrell, Richard E.**, Secretary of the Faculty and Professor of Communication and the Arts (theatre); B.A., Pomona; B.D., Chicago; Ph.D., Claremont.

**Simmons, Joan**, Instructor in Education; B.A., M.S., Indiana.

**Smith, Larry J.**, Associate Professor of Social Change and Development (economics); B.A., Oklahoma State; M.A., Ph.D., Chicago.

**Smith, Peter**, Assistant Professor of Business Administration; B.S., Ferris State; M.B.A., Michigan State; Ph.D., Purdue.

**Smith, William M.**, Professor of Regional Analysis (psychology); B.A., UCLA; M.S., Ph.D., George Washington.

**Sridhar, Sandhya**, Assistant Professor of Business Administration (organizational behavior); B.A., M.A., Bombay (India); Ph.D., Ohio State.

**Starkey, Ronald H.**, Professor of Natural and Applied Sciences (chemistry); B.A., Augsburg; M.S., Ph.D., Michigan.

**Stearney, Michael C.**, Associate Director and Lecturer in Educational Support Services (mathematics); B.S., UW-Green Bay; M.S., UW-Milwaukee.

**Stevens, Richard J.**, Associate Professor of Human Biology (biophysics); B.S., Rochester; M.S., Ph.D., Illinois.

**Stieglitz, Ronald D.**, Associate Dean of Graduate Studies and Professor of Natural and Applied Sciences (geology); B.S., UW-Milwaukee; M.S., Ph.D., Illinois.

**Stohs, Joanne M.**, Assistant Professor of Human Development (sociology); B.A., Cleveland State; M.S., Nebraska; Ph.D., Chicago.

**Stoll, John**, Professor of Urban and Public Affairs (economics); B.S., UW-Green Bay; M.S., Ph.D., Kentucky.

**Sutton, Brian W.**, Assistant Professor of Humanistic Studies (literature and language) and Associate to the Director of Composition; B.A., M.A., M.A., Michigan.

**Sweet, Denise**, Lecturer in Humanistic Studies (literature and language); B.A., M.A., UW-Eau Claire.

**Swinerton, Elwin N., Jr.**, Professor of Urban and Public Affairs (political science); B.A., M.A., Massachusetts-Amherst; Ph.D., Kentucky.

**Tasch, Thomas J.**, Associate Professor of Humanistic Studies (art); B.F.A., Illinois; M.A., Kansas State.

**Thompson, Phillip E.**, Associate Professor of Education (English education); B.A., Beloit; M.S., UW-Madison; Ph.D., Illinois.

**Thron, E. Michael**, Professor of Humanistic Studies (English) and Director of Composition; B.A., M.A., Ph.D., Nebraska.

**Thron, Joan E.**, Instructor of Education (composition); B.A., Emory; M.A., UW-Madison.

**Tompkins, Francine M.**, Assistant Professor of Education (special education); B.A., M.A., Ph.D., Michigan State.

**Troyer, Michael D.**, Associate Professor of Business Administration (economics); B.A., Cornell; M.A., Ph.D., Duke.

**Urcavich, Sherri**, Lecturer in Educational Support Services; B.A., Grand Valley State.

**Van Egeren, Carol**, Lecturer in Humanistic Studies (composition); B.A., St. Norbert College; M.S., UW-Stevens Point.

**Van Koevering, Thomas E.**, Professor of Education (science education); B.S., Western Michigan; M.A., Michigan; Ph.D., Western Michigan.

**Walter, Lynn Ellen**, Chairperson and Associate Professor of Social Change and Development (women's studies); B.A., Illinois; Ph.D., UW-Madison.

**Wang, (Andrea) Rau-Sheu**, Assistant Professor of Human Biology (nutritional sciences); B.S., Province College (Taichung, Taiwan); M.S., Ph.D., Nebraska.

**Wardall, Gary G.**, Lecturer in Natural and Applied Sciences (mathematics); B.S., M.A., UW-Madison.

**Wenger, Robert B.**, Chairperson and Professor of Natural and Applied Sciences (mathematics); B.S., Eastern Mennonite; M.A., Pennsylvania State; Ph.D., Pittsburgh.

**White, Rolfe E.**, Associate Professor of Social Work; B.A., M.S.W., Case Western Reserve; Ph.D., Laurence (California).

**Wichowski, Harriet C.**, Assistant Professor in Nursing; B.S., Barry University; M.S., Michigan; Ph.D., UW-Milwaukee.

**Wiersma, James H.**, Associate Professor of Natural and Applied Sciences (chemistry); B.S., UW-Oshkosh; M.S., Ph.D., Missouri-Kansas City.

**Winzenc, Karon E.**, Curator of Art and Professor of Communication and the Arts (art); B.S., Lawrence; B.S., UW-Madison; M.F.A., UW-Milwaukee.

**Zehms, Karl M.**, Chairperson of Business Administration and Accounting and Associate Professor of Business Administration (accounting); B.B.A., M.B.A., Ph.D., UW-Madison.

## Emeriti

**Abraham, Jerome B.**, Associate Professor Emeritus of Communication and the Arts; B.M., M.M., UW-Madison.

**Baker, Bela O.**, Associate Professor Emeritus of Social Change and Development; B.A., San Jose State; Ph.D., UC-Berkeley.

**Brickley, Julie R.**, Associate Professor Emeritus of Social Change and Development; B.A., UW-Madison; M.A., UW-Milwaukee; Ph.D., Union.

**Busch, James W.**, Associate Professor Emeritus of Education; B.S., UW-Superior; M.S., Ph.D., UW-Madison.

**Gandre, Donald A.**, Professor Emeritus of Regional Analysis; B.S., Arizona State; M.S., Illinois; Ph.D., UW-Madison.

**Goldsby, Alice L.**, Associate Professor Emeritus of Natural and Applied Sciences; B.A., Lynchburg; M.S., Utah State; Ph.D., UW-Madison.

**Guilford, Harry G.**, Professor Emeritus of Human Biology; Ph.B., Ph.M., Ph.D., UW-Madison.

**Hartley, Eugene**, Dean Emeritus; A.B., A.M., Ph.D., Columbia.

**Hartley, Ruth**, Professor Emeritus of Human Development; A.B., Cornell; A.M., Ph.D., Columbia.

**Kaufman, William C.**, Professor Emeritus of Human Biology; B.A., Minnesota; M.S., Illinois; Ph.D., Washington.

**Kazar, Michael R.**, Professor Emeritus of Education and Communication and the Arts and Associate Director of Arts, University Extension; B.S., Milwaukee State Teachers; M.S., UW-Madison.

**Loomer, Allison P.**, Associate Professor Emeritus of Natural and Applied Sciences; B.A., M.A., Acadia.

**McIntosh, Elaine N.**, Professor Emeritus of Human Biology; A.B., Augustana; M.A., South Dakota; Ph.D., Iowa State.

**O'Brien, Dean W.**, Professor Emeritus of Communication and the Arts; B.S., M.S., Ph.D., UW-Madison.

**Randall, Donna Z.**, Assistant Professor Emeritus of Human Biology; B.S., St. Teresa; M.S., UW-Madison.

**Reed, John F.**, Professor Emeritus of Environmental Sciences; A.B., Dartmouth; M.A., Ph.D., Duke.

**Sanders, Norris M.**, Associate Professor Emeritus of Education; B.S., M.S., Ph.D., UW-Madison.

**Sonenfield, Irwin C.**, Professor Emeritus of Humanistic Studies; B.M., Stetson; M.M., Florida State; Ph.D., UW-Madison.

**Theile, Juanita R.**, Associate Professor Emeritus of Nursing; B.S.N., St. Mary's, Notre Dame; M.S.N., St. Louis; Ed.D., Drake.

**Weidner, Edward W.**, Chancellor Emeritus and Professor Emeritus of Political Science; B.A., M.A., Ph.D., Minnesota.

**White, Keith L.**, Professor Emeritus of Natural and Applied Sciences; B.S., UW-Madison; M.S., Montana; Ph.D., UW-Madison.

**Witherell, Louise R.**, Professor Emeritus of Humanistic Studies; B.A., Toledo; M.A., Ph.D., UW-Madison.

## Professional Staff

**Anderson, Debra L.**, Academic Librarian, Special Collections; A.A., Rochester Community College; B.S., M.A., Mankato State; M.A., UW-Madison.

**Arendt, Lucy A.**, Associate Administrative Program Specialist, Business Administration; B.S., M.S., UW-Green Bay.

**Ashmann, Scott**, Assistant Director, Upward Bound Regional Center for Math/Science; B.S., UW-Green Bay.

**Barr, Mari R.**, Executive Assistant to the Chancellor and Director of Affirmative Action/Equal Opportunity; B.S., UW-Stevens Point; M.S., UW-Oshkosh.

**Barry, Thomas E.**, Director of Personnel Services; B.S., UW-Eau Claire.

**Bartlett, Dorma Z.**, Associate Director and Senior Academic Librarian, Bibliographic Operations; B.A., Michigan; M.A., UW-Oshkosh.

**Bennett, Richard**, Head Coach, Men's Basketball; M.S., UW-Superior.

**Berg, Jeanne**, Adviser, Registrar's Office; B.A., UW-Green Bay.

**Blohowiak, Diane E.**, Information Processing Consultant, Computer Center; B.S., M.S., UW-Green Bay.

**Bodilly, Susan**, Assistant Sports Information Director/Assistant Women's Basketball Coach; B.S., UW-Green Bay.

**Brauck, Cindy**, Volleyball Coach/Assistant Softball Coach; B.S., M.S., Southwest Missouri State.

**Brown, Betty D.**, Consultant, University Communications; B.A., Milwaukee-Downer.

**Brown, Tom**, Adviser, Academic Advising; B.A., UW-Green Bay.

**Brunette, Mark S.**, Administrative Program Manager I, Alumni Relations; B.S., UW-Green Bay.

**Bruss, Lyle R.**, Consultant, Facilities Planning; B.S., UW-Oshkosh; M.E., Illinois; Ph.D., UW-Madison.

**Bueth, Frank A.**, Outreach Program Manager I, Business Development Center; B.A., Dartmouth; M.B.A., Pennsylvania.

**Carlson, Laura L.**, Administrative Program Manager II/Still Photography, Media Resources; B.F.A., M.A., UW-Superior.

**Carter, Sheila E.**, Student Services Program Manager I, Student Life; B.A., UW-Green Bay; M.A., UW-Madison.

**Chambers, Dennis**, Athletic Trainer/Assistant Athletic Director; B.S., Nebraska-Lincoln.

**Cherry, John**, Bursar; B.S., UW-Stevens Point.

**Christensen, Mona L.**, Outreach Specialist in Youth Opportunities Program; B.A., UW-Green Bay.

**Christensen, Rhonda J.**, Associate Adviser, Extended Degree Program; B.G.S., UW-Green Bay.

**Conklin, Scott W.**, Instructional Program Manager I, Communication and the Arts; B.A., Beloit College.

**Connor, Michael L.**, Student Service Program Manager I, Residence Life; B.S., UW-Green Bay.

**Davitt, Christine**, Associate Academic Curator of Art; B.S., UW-Madison; M.F.A., UW-Milwaukee.

**Dawson, Cecily**, Athletic Trainer I, Intercollegiate Athletics; B.S., Northern Michigan.

**De Cleene, Barbara A.**, Information Processing Consultant in Computer Services; B.S., UW-Green Bay.

**DeForest Hicks, Sally**, Administrative Program Specialist in Personnel; B.S., Michigan Technological University.

**De Leeuw, Lisa J.**, Administrative Specialist, Alumni Relations; B.S., UW-Green Bay.

**Dell, Virginia C.**, Editor and Printing Manager, University Communications; B.J., Missouri-Columbia; MEAS, UW-Green Bay.

**Dhuey, Ronald A.**, Associate Vice-Chancellor for Institutional Research; B.S., M.S., UW-Stout.

**Dinsmore, Andrea**, Director, Child Care Center and Lecturer, Human Development; B.A., Illinois-Chicago; M.A., Arizona; M.S., Wheelock College.

**Dougherty, Daniel B.**, Associate Director, Student Housing; B.A., M.A., Eastern Illinois.

**Erdman, Thomas C.**, Associate Academic Curator in Natural History Museum.

**Erwin, Linda Ann**, Senior Administrative Program Manager and Director, Arts and Performances.

**Evans, Joan E.**, Adviser for Degree Summary, Registrar's Office; B.S., UW-Stevens Point.

**Ferron, Christine**, Student Services Specialist, Children's Center; B.S., UW-Madison.

**Fewless, Gary A.**, Instructional Specialist in Natural and Applied Sciences; B.S., M.S., UW-Green Bay.

**Fondriak, Barbara**, Research Analyst/EOP Adviser, Student Support Services.

**Frane, Louis S.**, Senior Information Processing Consultant in Computer Center.

**Franz, Kelly J.**, Associate Budget Planner, Business and Finance Office; B.B.A., UW-Eau Claire.

- Garot, David J.**, Associate Media Specialist in Media Resources/Photography; B.A., UW-Green Bay.
- Grant, Patrea A. Wisnicky**, Specialist, Student Life Programs; B.S., UW-Green Bay.
- Gustafson, Ruth**, Administrative Program Specialist to the Chancellor.
- Guyette, Orville R.**, Administrative Program Manager, Extended Degree Program; B.A., California State-Stanislaus.
- Haegers, Thomas C.**, Director of Housing and Student Services Program Manager; B.S., UW-Stevens Point; M.A., Ball State.
- Halron, Sandra M.**, Associate Director in Academic Advising; B.S., UW-Green Bay; M.S., UW-Milwaukee.
- Hammerle, Carol A.**, Associate Athletic Director (Women); Head Coach, Women's Basketball; M.S., Northern Michigan.
- Hansen, Leanne**, Academic Librarian, Bibliographic Operations; B.S., Central Michigan; M.L.I.S., UW-Milwaukee.
- Harder, Douglas E.**, Associate Adviser, Upward Bound Project; B.S., Northland College.
- Hartley, Allan C.**, Student Services Program Manager II, Adult Student Services; B.S., Tufts; M.S., Syracuse; Ph.D., Iowa.
- Harvey-Jacobs, Pamela K.**, Assistant Director, Admissions and Orientation; B.A., UW-Green Bay.
- Heideman, Michael D.**, Assistant Men's Basketball Coach; B.S., M.S., UW-LaCrosse.
- Helein, Timothy J.**, Recreation Specialist in Phoenix Sports Center; B.S., UW-Oshkosh.
- Heleniak, Mary**, Artist in University Communications; B.A., Carleton.
- Hemming, Laura**, Associate Academic Librarian, Interlibrary Services; B.A., M.A., UW-Madison.
- Hensen, Paul J.**, Assistant to the Vice Chancellor and Director, Academic Advising; B.S., M.S., UW-Oshkosh.
- Herrscher, Marjorie**, Instructional Specialist, Educational Support Services; B.A., Elmhurst College; M.A., UW-Green Bay.
- Hintz, Ceil**, Academic Adviser, Academic Advising; B.G.S., UW-Green Bay.
- Hodek, Roger N.**, Director of Computer Services and Senior Information Processing Consultant; B.S., UW-Green Bay.
- Huso, Holly**, Assistant Women's Basketball Coach, Athletics; B.S., North Dakota State; M.A., North Carolina State.
- Jacobson, Trudy**, Outreach Specialist/Conference Coordinator in Office of Outreach and Extension; B.A., UW-Green Bay; M.A., UW-Milwaukee.
- Jameson, Richard F.**, Director of Protective Services.
- Jennings, JoAnne**, Senior Adviser in Academic Advising; B.S., Tuskegee.
- Jonas, Jory**, Associate Research Specialist, Sea Grant Institute; B.S., UW-Green Bay.
- Kasten, Ruth Ann**, Administrative Program Specialist, Office of Development.
- Kasuboski, Anne**, Associate Academic Librarian, Government Publications; M.S., UW-Milwaukee.
- Kazar, Stephen**, Program Manager in Admissions and Orientation and Coordinator of International Student Services; B.S., M.S., UW-LaCrosse.
- Kelsey, Duane K.**, Senior Facilities Planning Specialist in Facilities Planning and Management.
- Kerksieck, Phillip J.**, Program Manager, University Housing; B.S., UW-Stevens Point; M.S., UW-Madison.
- Kiefer, F. Irene**, Director of University Communications; A.B., Indiana.
- Kieper, David G.**, Senior Information Processing Consultant, Computer Services; B.S., UW-Green Bay.
- Killinger, John**, Supervisor of Administrative Computer Programming; B.S., UW-Stevens Point.
- King, John L.**, Associate Adviser, Extended Degree Program; B.A., UW-Green Bay.
- Kohrell, Mary**, Outreach Program Manager II, Natural and Applied Sciences and Extension; B.S., Carroll College; M.A., Nebraska.
- Krajnik, Michelle A.**, Adviser and Student Services Program Manager I, Adult Student Services and Women's Center; B.A., St. Olaf College; M.S., UW-Madison.
- Kuebler, James H.**, Director of Facilities Management; B.S., Illinois.
- Lindemann, Barbara**, Administrative Specialist, Weidner Center for the Performing Arts.
- Mach, Gary W.**, Administrative Program Manager II for Learning Resources.
- MacKay, Coral L.**, Senior Adviser, Academic Advising; B.A., Carroll.
- Madzarevic, Frank**, Student Services Program Manager, Phoenix Sports Center; B.S., UW-Green Bay.
- Maki, Thomas D.**, Assistant Chancellor for Business and Finance; B.B.A., M.B.A., UW-Oshkosh; C.P.A.
- Mancoske, Marcella M.**, Registrar and Administrative Program Manager; B.A., St. Norbert.
- Marinetti, Michael E.**, Administrative Program Specialist in Institute for Research; B.A., MEAS, UW-Green Bay.
- Martinson, Stephen D.**, University Relations Specialist, University Communications; B.A., Sioux Falls College; M.A., UW-Superior.
- Massey, DeAnne E.**, Assistant Director, Student Life Programs; B.S., UW-Green Bay; M.S., UW-Milwaukee.
- McCarey, Marilyn J.**, Administrative Program Manager, Athletics/Intramurals.
- McDonough, Lee E.**, Outreach Specialist, School Services Bureau; B.A., Susquehanna University; M.A., Iowa.
- McQueen, Sidney J.**, Director, Weidner Center for the Performing Arts; B.S., North Dakota; Ed.M., Oregon State.
- Mielke, Janice M.**, University Relations Specialist, University Communications; B.A., M.A., UW-Milwaukee.
- Mommaerts, Barbara H.**, Associate Dean of Students and Director of Placement and Career Planning; B.S., M.S., UW-Oshkosh.
- Moutry, Deborah**, Director, American Intercultural Center; B.A., UW-Green Bay; M.S.E., UW-Oshkosh.
- Niquette, Paul**, Director of University Purchasing; B.B.A., UW-Milwaukee.
- Novak, Robert M.**, Consultant, Community Relations and Information Center; B.S., UW-Oshkosh; M.A., Northern Michigan.
- Olski, Katharine J.**, Director and Senior Adviser in Extended Degree Program and Individualized Learning Programs; B.A., MEAS, UW-Green Bay.
- Olson, Ellen R.**, Administrative Program Specialist, A.A./E.O. and Senior Adviser, Financial Aid; B.S., UW-Stevens Point; M.S., Southern Illinois-Carbondale.

- Olson, Gerald H.**, Dean of Students; B.S., UW-LaCrosse; M.S., UW-Madison.
- Pletcher, Kathy**, Associate Director and Senior Academic Librarian for User Operations; A.B., M.S., Illinois.
- Poggi, Dave**, Head Men's Soccer Coach; B.S., M.A., Oregon.
- Powers, Terry J.**, Sports Information Director; B.A., UW-Green Bay.
- Prechter, Keith J.**, Administrative Officer for Budgetary Planning; B.B.A., UW-Madison.
- Prem, Dawn R.**, Student Services Specialist, Children's Center; B.S., UW-Green Bay; M.S., College of Charleston.
- Pritchard, Robert M.**, Assistant Director of Financial Aid; B.S., UW-Milwaukee; M.S., UW-Oshkosh.
- Quigley, Timothy R.**, Promotions Director in Athletics.
- Raduenz, Les R.**, Associate Director, Physical Plant and Senior Facilities Planning Specialist in Facilities Management; B.S., UW-Madison.
- Rank, Jane M.**, Administrative Program Manager I, Institutional Services; B.S., UW-Madison.
- Ratajczak, Robert R.**, Instructional Specialist, Communication and the Arts; B.A., UW-Green Bay.
- Regan, Marlene Ann**, Counselor in Counseling and Student Development Center; B.S., UW-Stevens Point; M.A., UW-Superior; M.S., UW-Oshkosh.
- Rheinschmidt, Alan**, Director of Institutional Services and Risk Management; B.A., UW-Milwaukee.
- Robb, Joan M.**, Academic Librarian, Access Services; B.S., Cornell; M.A., UW-Madison.
- Ronnenberg, Ron R.**, Director, Financial Aid and Student Employment; B.S., M.S., UW-LaCrosse.
- Rothe, Kurt B.**, Executive Director of Learning Resources; B.M., St. Norbert; M.M., UW-Madison; M.A., Michigan.
- Sampson, Christopher D.**, University Relations Specialist in University Communications; B.A., UW-Madison.
- Santaga, Aldo P.**, Associate Athletic Director and Head Women's Soccer Coach; Intercollegiate Athletics and Intramurals.
- Schmitt, Michael C.**, Media Specialist in Audio/Video Services; B.S., UW-Stevens Point; M.S., UW-Stout.
- Seidl, Anne M.**, Student Health Nurse, Student Health Services; R.N., Holy Family School of Nursing.
- Shakal, Charles**, Administrative Program Manager in Arts and Performances; B.A., UW-Green Bay; M.A., UW-Madison.
- Shepardson, Timothy M.**, Student Services Program Manager in Placement and Career Planning; B.S., M.S., UW-LaCrosse.
- Skorczewski, Robert J., Jr.**, Outreach Program Manager II for Lifelong Learning; Credit; B.S., UW-Green Bay; M.S., UW-Milwaukee.
- Smith, Gregory L.**, Director of Counseling and Student Development Center and Coordinator of Handicapped Services; B.S., UW-Green Bay; M.S.E., UW-Oshkosh.
- Spangenberg, Richard**, Computer Programmer; B.S., UW-Green Bay.
- Spielmann, Daniel**, Senior University Legal Counsel and Athletic Director and Lecturer in Business Administration; B.A., J.D., UW-Madison.
- Sorelle, Patrick**, Administrative Program Manager II of Phoenix Bookstore; B.S., M.B.A., Northern Michigan.
- Stipe, MiLissa O.**, Adviser in Credit Outreach for Green Bay Correctional Institution and Lifelong Learning; B.A., UW-Green Bay.
- Swan, Karen K.**, Director of Health Services; B.S.N., UW-Eau Claire.
- Swan, Stephen G.**, Assistant Men's Basketball Coach; B.A., UW-Eau Claire.
- Thornton, Jan**, Director, Continuing Education/Outreach; B.S., UW-Whitewater; M.A., UW-Madison.
- Tillis, Jennifer M.**, Academic Librarian, Collection Management; B.A., M.A., UW-Milwaukee.
- Toepel, Timothy E.**, Administrative Program Manager II in Media Services; B.A., UW-Madison; M.S., UW-LaCrosse.
- Vanderperren, Roger J.**, Director, Media Resources; B.S., UW-Madison.
- Vanden Heuvel, Toni L.**, Administrative Specialist, Communication and the Arts; B.A., UW-Green Bay.
- Van de Ven, Myron J.**, Director of Admissions and Enrollment Services; B.A., St. John's University; M.Ed., Wyoming.
- Vande Voort, Colleen**, Student Health Nurse, University Health Services; B.S., Marian College.
- Van Oudenhoven, Sally**, Student Services Program Manager for Credit Evaluation, Registrar's Office; B.A., UW-Eau Claire.
- Villarroel, Olga**, Adviser, Hispanic Student Program, American Intercultural Center.
- Weitz, Raymond J.**, Associate Adviser in Extended Degree Programs; B.S., M.P.A., UW-Oshkosh.
- Willmann, Kurt**, Director of Student Union, Student Life Programs; A.A., William Rainey Harper College; B.S., Ed.M., Illinois.
- Wiseman, Charles L.**, Controller in Business and Finance Office; B.S., Southeast Missouri State.
- Zinkl, Andrew R.**, Academic Librarian, Reference and Data Base Services; A.B., Marquette; M.A. Creighton; M.A.L.S., UW-Milwaukee.

# INDEX

- Academic advice, 11  
 Academic calendar, 16  
 Academic program, 4, 10-91  
   individual program planning, 10  
   summary of study programs, 11  
 Academic rules and regulations, 147  
 Academic standing, 147  
 Accounting, 18  
   courses, 96  
 Accreditation, 4  
 Addresses, for more information, ii  
 Administration, UW, inside front cover  
   UWGB, inside front cover  
 Admission  
   ACT scores, 140  
   adult students, 142  
   application procedures, 140, 142  
   Educational Opportunity Program, 139, 142  
   general policy, 139  
   graduate program, 142  
   international students, 142  
   nonnative English speakers, 142  
   requirements, 139, 140  
   special students, 141  
   transfer students, 141  
   veterans, 142  
 Adult student counseling, 8  
 Advanced Placement Credit, 14  
 Advising, academic, 11  
 Aesthetic awareness, see Communication and the Arts  
 Affirmative action information, inside front cover  
 Agriculture, preprofessional program, 82  
 American College Test (ACT), 140  
 American Indian Studies, 19  
 American Intercultural Center, 8  
 American literature and language, see Literature and Language  
 Anthropology, 20  
   courses, 96  
 Apartments, student, 8  
 Architecture, preprofessional program, 82  
 Art, 20  
   courses, 97  
 Assessment program, 13  
 Associate of Arts degree, 92  
 Attendance, class, 151  
 Auditors, adult, 151  
  
 Bachelor of General Studies degree, see General Studies  
 Bachelor of Science in Nursing degree, 64, 88  
 Bachelor of Social Work degree, 76  
 Bachelor's degrees, 4  
 Bacteriology, see Biology  
 Biochemistry, see Nutritional Sciences; Chemistry; Environmental Science  
 Biology, 23  
   courses, 98  
 Board of Regents, inside front cover  
 Bookstore, 8  
 Botany, see Biology  
 Breadth requirement, 10, 12  
 Broadfield communication, see Communication and the Arts  
 Budget, student, 143  
 Business Administration, 24  
   courses, 99  
 Calendar, 16  
 Campus life, 8  
  
 Campus map, inside back cover  
 Career and life planning, see Placement and career planning; Counseling  
 Center for Public Affairs, 6  
 Center System course equivalency tables, 156  
 Chemistry, 26  
   courses, 101  
 Child care, 8  
 Child development, see Human Development  
 Chiropractic, preprofessional program, 83  
 Coaching Certification, 67  
 Cofrin Arboretum and Natural Areas, 6  
 College Level Examination Program (CLEP), see credit by exam  
 Communication and the Arts, 27  
   courses, 102  
 Communication Processes, 31  
   courses, 104  
 Communications, see Communication Processes; Communication and the Arts  
 Community, description of, 5  
 Community Sciences courses, 106  
 Computing facilities, 6  
 Computer Science, see Information and Computing Science; Mathematics; courses, 106  
 Counseling, 8  
 Counseling, preprofessional program, 84  
 Course descriptions, 94-138  
 Course periodicity, 94  
 Credit by examination, 14  
 Credit for prior learning, 14  
 Credit evaluation, transfer students, 141  
 Credit load, 147, 151  
  
 Dance, see Theatre  
 Data, Video, Voice Network, 6  
 Dean of Students, 8  
 Degrees, Associate of Arts, 4, 92  
   Bachelor of General Studies, 4, 47  
   Bachelor of Science, Nursing, 4, 64  
   Bachelor of Social Work, 4, 76  
   graduate, 4, 93  
   undergraduate, 4  
 Dentistry, preprofessional program, 84  
 Disciplinary guidelines and procedures, see Dean of Students  
 Disciplinary majors and minors, see p.17  
 Dormitories, see residence halls  
 Drama, see Theatre  
  
 Early childhood education, see Education; Human Development  
 Earth Science, 34  
   courses, 107  
 Economics, 35  
   courses, 107  
 Ecumenical Center, 8  
 Education, 36  
   courses, 108  
 Educational Opportunity Program, 139, 142  
 Educational Support Services, 6  
 Electronic media, see Communication Processes  
 Elementary education, see Education  
 Employment, student, 145  
 Engineering, 40  
   courses, 110  
 Engineering, preprofessional program, 85  
 English, 41  
   courses, 119

- English as a Second Language, see Communication Processes  
 Environmental Design, see Communication and the Arts  
 Environmental Policy and Planning, 42  
   courses, 137  
 Environmental Science, 44  
   courses, 111  
 Ethnic studies, 10, 12  
 Exchange programs, 14  
 Expenses, 143  
 Experimental courses (selected topics), 95  
 Extended degree program, 14, 47
- Faculty, 6**  
   directory, 159
- Fees**  
   application, 140, 142  
   January interim, 143  
   Minnesota residents, 143  
   semester, 143  
   summer session, 143
- Finance, see Business Administration**
- Financial aid, 144**  
   application procedures, 144  
   eligibility, 144  
   employment, 145  
   grants, 145  
   loans, 145  
   refunds, 154  
   scholarships, 146  
   standards required to receive, 155
- Food science, see Nutritional Sciences**  
**Food service, 8**  
**Foreign language, see also Literature and Language**  
**French, 46**  
   courses, 119
- General-education requirements, 10, 12**  
**General Studies, 47**  
**Geography, 47**  
   courses, 112  
**Geology, see Earth Science**  
**German, 48**  
   courses, 119  
**Gerontology, see Human Development**  
**Grading system, 148, 150**  
   grade point average, 147  
   pass-no credit grading, 152  
**Graduate programs, 93**  
**Graduation**  
   requirements, 10  
   with honors, 15, 153  
**Grants, 145**  
**Graphic communications, see Communication and the Arts**  
**Green Bay community, 5**  
**Green Bay Correctional Institute program, 139**
- Handicapped facilities and services, 8**  
**Health professions, see Biology, Chemistry, Human Biology,**  
   **Nursing; also preprofessional programs**  
**Health Services, 9**  
**Herbarium, 7**  
**History, 49**  
   courses, 113  
**Honors, 15, 95**  
**Housing, 8**  
**Human Biology, 51**  
   courses, 115  
**Human Development, 53**  
   courses, 116
- Humanistic Studies, 55**  
   courses, 117  
**Humanities and Fine Arts, 11**
- Independent study, 15, 95**  
**Individualized learning, 14**  
**Information and Computing Science, 57**  
   courses, 119  
**Information Center, 9**  
**Information, where to write or phone, ii**  
**Instructional unit numbers, 94**  
**Integrated communications, see Communication and the Arts**  
**Interdisciplinary majors and minors, see p.17**  
**International education, 14**  
**International Student Center, 9**  
**International Studies, 58**  
**Internships, 15, 95**
- January interim period, 16, 143**  
**Journalism, see Communication Processes**
- Law, preprofessional program, 85**  
**Lawton Gallery, 7**  
**Library, 7**  
**Linguistics, see Communication Processes**  
**Literature and Language, 59**  
   courses, 119  
**Loans, 145**
- Majors, 11**  
**Management, see Business Administration**  
**Map, campus, inside back cover**  
**Marketing, see Business Administration**  
**Mass communications, see Communication Processes**  
**Mathematics, 59**  
   courses, 121  
**Medical Technology, preprofessional program, 86**  
**Medicine, preprofessional program, 87**  
**Middle school education, see Education**  
**Military Science, 61**  
   courses, 123  
**Minors, 11**  
**Mortuary Science, preprofessional program, 87**  
**Music, 62**  
   courses, 123, 124  
**Musical theater, see Communication and the Arts**
- National Student Exchange, 14**  
**Natural Sciences and Mathematics, 11**  
**Noncredit study, 15**  
**Nursing, degree completion, 64**  
   courses, 125  
**Nursing, preprofessional program, 88**  
**Nutritional Sciences, 64**  
   courses, 125
- Occupational Therapy, preprofessional program, 88**  
**Optometry, preprofessional program, 89**  
**Organizational communication, see Communication Processes**  
**Other-culture studies, 10, 12**
- Pass-no credit grading, 152**  
**Performing arts, see Music; Theatre; Student Activities**  
**Personal major, 15**  
**Pharmacy, preprofessional program, 89**  
**Philosophy, 66**  
   courses, 126  
**Photography, see Communication Processes**  
**Physical Education, 67**  
   courses, 127

- Physical Therapy, preprofessional program, 90  
 Physics, 68  
   courses, 128  
 Physiology, see Human Biology  
 Placement services, 9  
 Physician Assistant, preprofessional program, 90  
 Planning, regional, see Regional Analysis  
 Planning, urban, see Urban Studies  
 Political Science, 69  
   courses, 129  
 Practice teaching, see Education  
 Preprofessional programs, see p.17  
 Prerequisites, 94, 151  
 Probation, academic, 148  
 Professional studies, see p.17  
 Psychology, 70  
   courses, 130  
 Public Administration, 71  
   courses, 137  
 Public relations, see Communication Processes
- Recreation and entertainment, 9  
 Regents, Board of, inside front cover  
 Regional Analysis, 72  
   courses, 131  
 Remedial work, 13  
 Requirements  
   academic, 12, 13  
   admission, 139, 140  
 Research, 15  
 Residence halls, 8  
 Residence requirement, 13  
 Retroactive credit, foreign language, 59  
 Richter Natural History Museum, 7  
 ROTC, see Military Science  
 Rules, academic, 147  
   disciplinary, see Dean of Students
- Scholarships, 146  
 Science communication, see Communication and the Arts  
 Secondary education, see Education  
 Security and safety, 9  
 Senior honors, 15, 95, 153  
 Senior seminars, 10, 13  
   courses, 132  
 Social Change and Development, 74  
   courses, 133  
 Social Sciences, 11  
 Social Work, 76  
   courses, 135  
 Sociology, 77  
   courses, 135  
 Spanish, 78  
   courses, 119  
 Speech, see Communication Processes  
 Sports and recreation, 9  
 Staff, UWGB, 163  
 Statistics, see Mathematics  
 Student activities, 9  
 Student employment, 145  
 Student exchange, 14  
 Student financial aid, 144  
 Student governance, 9  
 Student-led courses, 95  
 Student loans, 145  
 Student organizations, 9  
 Student teaching, see Education  
 Study abroad, 14  
 Summer session, 16, 143  
 Suspension, academic, 148
- Teacher preparation, 36  
 Theatre, 79  
   courses, 136  
 Theatre facilities, 7  
 Theology, preprofessional program, 91  
 Timetable, ii  
 Transportation, 8  
 Transfer students, admission, 140  
   credit transfer, 141  
   requirements, 12, 141  
 Travel courses, 14  
 Tuition, 143
- University directory, 159  
 University of Wisconsin, administration, inside front cover  
   board of regents, inside front cover  
 UW-Center System course equivalencies, 156  
 UWGB  
   accreditation, 4  
   administration, inside front cover  
   board of visitors, inside front cover  
   campus, 5  
   faculty, 6, 159  
   history, 4  
   staff, 163  
   students, 4  
 Urban Studies, 80  
   courses, 137
- Veterinary medicine, preprofessional program, 91  
 Visual arts, see Art
- Withdrawal from the University, 152  
 Women's Studies, 81  
 Work-study, 146  
 Writing Center, 7  
 Writing emphasis courses, 12  
 Writing proficiency, 12