

1994-1996

Undergraduate Catalog



University of Wisconsin-Green Bay

1994-1996 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 and summer/ intersession 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 or prospective student.

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

Effective Dates

This catalog is in effect from July 1, 1994, and until it is superseded by a new catalog. Policies of the previous catalog are in effect until June 30, 1994, unless they are changed by official announcements.

University Policy

The provisions of this catalog are not to be regarded as an irrevocable contract between a student and the University of Wisconsin-Green Bay. The information in this book was accurate at the time of its printing, but changes occur 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 individual students' interests 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. Changes in curriculum or graduation requirements are not made retroactive unless the change is to a student's advantage and it can be accommodated within the time span of years normally required for graduation.

Other Publications

Academic Advising Handbook
(available from Academic Advising Office)
A guide to program planning and academic requirements.

Course Listing
(available from Admissions Office)
Lists course schedules 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 information on registration, descriptions of new courses, tuition and fees, academic rules and regulations, etc.

Student Handbook
(available from Dean of Students Office)
Information about life on the campus and in the community.

Prospectus
(available from Admissions Office)
A summary of information for prospective students.

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 about on-campus residence halls and student apartments.

Extended Degree Program Catalog
(available from Extended Degree Office)
Describes external degree program for adults who want to complete a bachelor's degree.

Graduate Studies Catalog
(available from Graduate Studies Office)
Provides information about the University's master's degree programs.

Other publications on special services and programs are also available.

For More Information

The University address is:
University of Wisconsin-Green Bay
2420 Nicolet Dr.
Green Bay, WI 54311-7001

Campus Information Center
414-465-2000

TDD (Telecommunications Device for the Deaf)
414-465-2841

Academic Advice
Academic Advising Office,
414-465-2362

Adult Student Information
Adult Student Services Office,
414-465-2530

Applications, Undergraduate Catalogs, Campus Visits, General Information
Admissions Office,
414-465-2111

Career Counseling
Career Counseling and Placement Office,
414-465-2163

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

Graduate Studies
Associate Dean for Graduate Studies,
414-465-2123

Housing Off Campus
Dean of Students,
414-465-2152

Housing On Campus
Residence Life Office,
414-465-2040

International Education
Office of International Education,
414-465-2484

Lifelong Learning, Non-Credit Courses
Office of Outreach,
414-465-2102

Multicultural Programs
American Intercultural Center,
414-465-2720

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

Some offices have extended hours to accommodate evening students. Call specific offices if you have questions.

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THE 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 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 bring together different academic disciplines in one course; others are focused upon a particular dimension or approach. Some courses emphasize studies of various cultures within American society or the cultures of other countries. Students complete general-education in their senior year with a seminar in which a particular topic or issue is examined from different intellectual perspectives.

Students pursue in-depth preparation through a major. The major may be in a traditional disciplinary program, a professional program, or in one of the interdisciplinary programs that apply knowledge from several disciplines to a particular area of study. Students who major in a discipline have an added dimension to their preparation because they also complete a minor in an interdisciplinary program. This enables them to see their speciality 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 for a variety of career directions, 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 application of knowledge provides students with a significant advantage. By applying knowledge

to real experience, students 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 careers and for further education.

The emphasis upon 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 faculty time and attention and reflect their concern for both academic and personal growth of their students.

This emphasis upon interdisciplinary 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 for the student to develop a responsive and responsible perspective as citizens and stewards of the Earth.

Degrees

UW-Green Bay offers the Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) degree, the Bachelor of Music (B.M.), 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 are offered:

- 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
- Teacher Education, Wisconsin Department of Public Instruction

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, a newly-expanded university union, sports center, and ample open space.

The campus is one of 13 degree-granting institutions in the University of Wisconsin System.

UW-Green Bay'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 5,170 undergraduates and 235 graduate students (fall 1993-94). The diverse student body includes students from all but two of Wisconsin's counties, 26 other states, and 30 other countries. Of the regularly admitted freshmen in 1993-94, nearly 50 percent ranked in the upper one-fourth of their high school graduating class.

Administration

University of Wisconsin-Green Bay

Mark L. Perkins, Chancellor
 William G. Kuepper, Vice Chancellor for
 Academic Affairs
 Donald F. Harden, Associate Chancellor
 Thomas D. Maki, Assistant Chancellor for
 Business and Finance
 Robert J. Bauer, Dean of Professional Studies
 and Outreach
 Terence J. O'Grady, Interim Dean of Arts,
 Sciences and Graduate Program
 Carol A. Pollis, Dean of Humanities,
 Social Sciences and General Education
 E. Michael Thron, Secretary of the Faculty

University of Wisconsin Board of Regents

Jonathan B. Barry, Mt. Horeb
 John T. Benson, Madison
 John Budzinski, Milwaukee
 Erroll B. Davis, Jr., Madison
 Lee Sherman Dreyfus, Waukesha
 C. Daniel Gelatt, La Crosse
 Michael W. Grebe, Milwaukee
 (Regent Vice-President)
 Adolf L. Gundersen, La Crosse
 Kathleen J. Hempel, Green Bay
 Phyllis M. Krutsch, Washburn
 Sheldon B. Lubar, Milwaukee
 Virginia R. Mac Neil, Bayside
 Albert O. Nicholas, Milwaukee
 Paul R. Schilling, Milwaukee
 San W. Orr, Jr., Wausau
 George K. Steil, Sr., Janesville
 (Regent President)

University of Wisconsin System Administration

Katharine C. Lyall, President

University of Wisconsin-Green Bay Board of Visitors

Paul Anderson, Green Bay
 Terry Bush, Green Bay (Vice Chairperson)
 Ruth Clusen, Green Bay
 Bruce Deadman, Green Bay
 Wayne G. Destree, Green Bay
 Mary Eickman, Marinette
 Lucy Forsting, Green Bay
 John Gibson, Green Bay
 Mark Harrison, Green Bay
 Michael Kaeske, Green Bay
 David Nennig, Green Bay (Chairperson)
 Mary Walden, Green Bay
 Audrey Waldo, Mountain
 Leonard Weis, Appleton

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. University Village, the student residential complex, has both residence halls and apartment buildings.

The Edward W. Weidner Center for the Performing Arts, which opened in January 1993, is Wisconsin's largest performing arts facility outside of Milwaukee and Madison. The 2,020-seat theater showcases major theatrical, musical, and dance events and special attractions and serves residents of a large surrounding area. The University Union nearly doubled in size with completion of an addition in 1993. The addition accommodates events with large attendances, and includes dining rooms, a student mailroom, an expanded Rathskeller, student organization offices, and other facilities. The Union expansion meets the needs of an increased campus resident population.

Located on privately-owned land adjacent to the campus is an Ecumenical Center designed to serve both students and residents of the Green Bay community. Counseling, weekly worship services, social events and growth and support groups are among the activities taking place there through the Ecumenical 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.

The Community and Region

Green Bay is Wisconsin's third largest city and its fastest growing metropolitan area. Its metropolitan population of 200,000 is expected to exceed 220,000 in ten years. The city also ranks first in the state in growth of personal income. Green Bay is the county seat of Brown County.

More than 70 percent of employment is divided about evenly among manufacturing (particularly paper products, metal fabricating, and food products); services (especially health care), and retailing. The city boasts a foreign seaport in the heart of downtown.

Community resources include theater and music organizations, a good public library system, a large public park system, a science, art, and history museum, an amusement park, a wildlife sanctuary, a state historic park, a developing botanic garden, and numerous other attractions. In early summer, community residents by the thousands meet on campus for the University's Bayfest celebration. Artsstreet, an annual late summer festival of performing and visual arts, takes place downtown. Not least among Green Bay's attractions is the community-owned football franchise—the Green Bay Packers.

The region is served by daily and weekly newspapers, several AM and FM radio stations and five television stations, including two FM stations affiliated with the Wisconsin Public Radio System, and WPNE-TV of the Wisconsin Public Television Network. Other educational institutions 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, much 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 municipal and intercity bus lines.

CAMPUS LIFE

Student

Campus Housing

University Village on campus offers two different residence options for students — residence halls and apartments. About one-fourth of UW-Green Bay 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 members 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 the 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 University 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 University Union; the Garden Cafe, a delicatessen-type facility in the lower level of the Cofrin Library; and the Rathskeller, in the lower level of the University 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 level of Wood Hall, Laboratory Science, Studio Arts, and the Cofrin 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 beginning at 5:42 a.m. until 6:12 p.m. and hourly until 10:12 p.m. Monday through Friday. Hourly service is provided on Saturday from 8:12 a.m. until 6:12 p.m. 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. A convenience store in the expanded University Union is a mini-grocery store with a selection including dairy, produce, fresh bakery, snacks and frozen foods; health and beauty aids, and housekeeping supplies. Other on-campus services include the University of Wisconsin Credit Union, automatic teller machines, and Second Gear, a resale shop.

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

Counseling. Staff members in 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, 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.

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 three part-time physicians. The nurses' services are available during daytime hours, Monday through Friday, by appointments 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.

services

Information. Answers to questions about faculty schedules, times and locations of campus events, weather-related campus closings, 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. Each year, students from about 30 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.

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 Career Counseling and Placement 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 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 Resource Center is a focus for programs and services directed to campus women. Conferences, speakers and special events celebrate women's achievements and examine the issues of topical importance.

Activities

Arts. Campus music, theatre and dance ensembles offer entertainment as well as opportunities for student performers of all academic majors. Some performances take place in the new state-of-the-art Weidner Center for the Performing Arts and others take place in performance facilities in Theatre Hall and elsewhere.

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 Dance-theatre 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. *Sheepshead Review* is the student-edited literary magazine. A wide range of other organizations promote awareness of particular issues, or provide service to the campus and community. Staff members in the Office of Student Life provide guidance and training.

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

Intercollegiate Sports. Basketball and soccer are the major competitive sports at UW-Green Bay for both men and women. Both basketball and soccer teams, as well as the swimming-diving team, have excelled and brought national attention to the University. Women compete in tennis, swimming and diving, softball, volleyball, and cross-country running. Men's teams include tennis, golf, cross-country running, and swimming. Three members of the Nordic ski team competed in the 1993 U.S. Ski Association Nationals. Both the men's and women's basketball teams were invited to NCAA Division I championship tournaments in 1994.

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 nominate student members for all-University committees. 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 University 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.

ACADEMIC RESOURCES

Arboretum and Natural Areas

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

The University 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.

Center for Public Affairs

The Center for Public Affairs 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 the 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.

Computing Facilities

All registered students have access to the University's computing facilities for their classroom work, writing, data analysis, and research. Several introductory courses are designed to give students the skills to use the computer facilities effectively throughout their academic programs. Student accounts, which allow each student access to the mainframe, are opened automatically at the beginning of each semester.

Instructional computing consists of several labs networked by a Digital Equipment Corporation (DEC) Network. This network provides access to a large library of computer software. Students may choose programs on MS-DOS-compatible workstations, Macintosh workstations, or VMS (DEC) terminal access workstations. Software includes all major computer languages running

under both VMS and MS-DOS, word processing, spreadsheets, and statistical analysis. There is a large library of course-specific software including graphics and engineering software.

General student computer labs are set up in one contiguous area and include three classrooms adjacent to a central room. The classrooms can be reserved by faculty for class instruction/demonstration. Current computer work areas include:

- Central work area: 48 student workstations of which 24 are 8088 MS-DOS units and two are 486 units; 27 DEC terminals of which four are graphics terminals.
- Classroom 1: 22 student workstations and one faculty workstation. The units are Apple Macintosh IISI.
- Classroom 2: 24 student workstations and one faculty workstation. The units are 386 MS-DOS units.
- Classroom 3: 26 student workstations and one faculty workstation. The units are 286 MS-DOS units.

Printers are installed at the consultant station centrally located with the lab. Consultants have access to terminals, an MS-DOS unit, and a Macintosh for consulting help and printing services.

Computing facilities are open 7 a.m. - 11 p.m. during the week, 9 a.m. - 5 p.m. on Saturday, and 1 - 11 p.m. on Sunday. Assistance is always available when the labs are open.

Several program-specific computer labs throughout the campus are available through faculty. These include graphic arts, photography, psychology, geography, and business. Students in these areas will find a variety of equipment to meet their instructional needs.

As part of the state-wide higher education network, WisNet, UWGB provides access to many world-wide networks including Internet for research and instruction.

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 mathematics, 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 artwork 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 David A. Cofrin Library supports the academic program with a collection of more than 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 zoologists, 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 Richter Museum has a library of books, journals, and reprints in support of the collections.

The Richter 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 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 offers opportunities for students to attend, work at and perform in a major hall.

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 and by referral.



PLANNING AN ACADEMIC PROGRAM

Goals of the Academic Plan

All programs of study at UW-Green Bay are based in the liberal arts. They provide students with a broad and comprehensive education in addition to the specialization of their majors.

Two essential components are:

1. general education, and
2. an interdisciplinary, problem-focused major or minor.

These are the distinctive elements of the UWGB academic plan.

General-education courses are the foundation for each student's education. General education links students to the body of knowledge shared by educated individuals. It helps students develop their abilities to think, assess information, and examine values. General education prepares students for a lifetime of learning.

The interdisciplinary, problem-focused component helps students to become critical thinkers so that they can effectively use the knowledge they have gained. This component allows students to apply what they are learning to issues and enables them to see how knowledge is inter-related.

The goals of the University's academic program are discussed in more detail on page four of this catalog.

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. General education provides an opportunity for the undecided student to "sample" courses from across the University and is helpful in choosing a major.

When they have earned 36 credits, students must select a major. UW-Green Bay students can choose an interdisciplinary major such as business administration, environmental science, human development, humanistic studies, or others from the list on the next page. Or, students can choose a traditional, disciplinary major — English, mathematics, or political science, for example. Students who choose a disciplinary major must also select an interdisciplinary minor to provide the valuable interdisciplinary component of their educations.

Typically, a major is at least 30 credits, with 24 of those at the upper level. Many majors require more than these minimum requirements, so students should see an adviser early. A minor is 18 credits, 12 of which must be at the upper level. Students who want to prepare for law or medicine or other professional schools requiring an undergraduate degree or courses should consult advisers early, to ensure that they choose appropriate undergraduate courses. The same is true for graduate school preparation.

Components of a Degree

Component I 36-42 credits

General-Education Requirements

(For students enrolling in fall 1994)

- 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
 - 0-6 credits of writing proficiency

Component I 40-49 credits

General-Education Requirements

(For students enrolling in fall 1995 and thereafter)

- 31-34 credits of breadth consisting of:
- 9 credits of humanities
 - 9 credits of social sciences
 - 10-13 credits of natural science
 - 3 credits of fine arts
 - 3 credits of other-culture studies
 - 3 credits of ethnic studies
 - 3 credits of senior seminar
 - 0-6 credits of writing proficiency

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

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)

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 communication, 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 (minor only)

Professional Studies

- Accounting

Professional Studies

- Business Administration
- Education (Major in Elementary; Minor in Secondary)
- 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 UWGB 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, law and social change, photography, and science communication. 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 only

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.

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 UW-Green Bay. Interested students should read the description in this catalog and consult an adviser.

Graduate Studies

Students may continue their studies at UW-Green Bay beyond the bachelor's degree in specific master's degree programs. These are described briefly in this catalog; a graduate studies catalog is available.

Academic Advice

Students should see an academic adviser early. The Academic Advising Office advises all students on meeting general-education requirements and is the advising source for students with fewer than 36 earned credits. Once they have earned 36 credits, students must declare a major, and thereafter, must consult a faculty adviser 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 majors are listed in each session's *Timetable*.

For students transferring into UWGB from other universities, it is doubly important to see an adviser. New freshmen should be sure to participate in a one-day Student Orientation, Advising, and Registration (SOAR) session before beginning their studies.

use this for Academic Advising

Interdisciplinary Majors and Minors

(Students who choose a discipline take an 18-credit minor in one of the following areas.)

Humanities and Fine Arts

- Communication and the Arts
(aesthetic awareness, broadifications, environmental design, communications, musical theater, communication, graphic communication)
- Humanistic Studies

Natural Sciences

- Environmental Science
- Human Biology
- Information and Computing Sciences
- Nutritional Sciences

Social Sciences

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

women's studies (minor only)

American Indian Studies (minor only)

- Occupational Therapy
- Optometry
- Pharmacy
- Physical Therapy
- Physician Assistant
- Theology
- Veterinary Medicine

music. Use as "Other" category under Interdis to Code Personal (major only) General Studies (major only)

ACADEMIC REQUIREMENTS

General-Education Requirements

UW-Green Bay will have new general-education requirements beginning in fall 1995. For students enrolling in fall 1994, general-education requirements total 36 to 42 credits. These include 27 credits of breadth of knowledge courses, three credits each in other-culture studies and ethnic studies, a three-credit senior seminar, and zero to six credits of writing proficiency courses.

Beginning in fall 1995, general-education requirements total 40 to 49 credits. Breadth of knowledge course requirements will increase to 31 to 34 credits; the other credit totals are unchanged.

The goal of general education is to help students broaden their 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 students 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 learn about causes and effects of stereotyping, racism, and ethnocentrism;
- increase their ability to solve problems through interdisciplinary approaches.

Writing Proficiency

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

Students demonstrate writing competency either by achieving a specified minimum score on the ACT or other approved placement test, or by passing 352-100, College Writing by the end of their second semester at UWGB.

Performance on the ACT or another approved placement test places students in one of four writing skills categories:

- In need of substantial development
Student must complete the non-degree credit course, 912-093, Fundamentals of Writing, and then successfully complete the three-credit 352-100, College Writing.
- In need of further development
Student takes 352-100, College Writing during one of the first two semesters at UW-Green Bay.

— Adequate

Student is not required to take a writing course, but is encouraged to do so, particularly a course above the 352-100 level, such as 352-105, Expository Writing; 352-225, Writing About the Arts and Humanities; 352-226, Writing About the Social Sciences; or 352-227, Writing About the Sciences.

— Quite good

No writing courses required, but such students are encouraged to continue developing their abilities by taking 352-105, Expository Writing, or one of the more advanced writing courses listed above.

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 by test scores or by completing specific courses, students must complete four writing emphasis courses before graduation. At least two of these courses must be at the upper level. Writing emphasis courses are regular courses offered across the curriculum in which writing and writing critique are significant components. Such courses are designated in the *Timetable* with the letters "WE." The courses are designed to improve and reinforce writing skills by providing regular opportunities to practice.

Courses selected to fulfill the writing emphasis requirement may simultaneously fulfill other general-education requirements or requirements for majors and minors.

Breadth Courses

Breadth requirements will change in fall 1995. Students who enroll prior to fall 1995 must complete three designated courses (nine credits) in each of three broad areas of knowledge: natural sciences, social sciences, and humanities and the arts.

Students enrolling in fall 1995 and thereafter must complete a specified number of credits in designated courses in these areas: the fine arts (three credits), the humanities (nine credits), the social sciences (nine credits), and the natural sciences (10 to 13 credits).

Breadth requirements provide the opportunity to learn the distinctive approaches and some of the important subject matter and significant issues within each area of knowledge.

Other Culture Studies

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

The requirement can be fulfilled by completing any approved three-credit course. Courses approved to meet the other-culture requirement are identified in the *Timetable* by the abbreviation "OC." A course used to meet 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 a UWGB-sponsored study 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 helps students understand, respect, and value American cultural diversity and understand the causes and effects of stereotyping, racism, and ethnocentrism. It prepares them to live in a multicultural society.

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

The requirement also may 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 unifying 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. The courses emphasize further development of writing and speaking skills.

Senior seminar courses are described in the course descriptions section of this catalog, in the sequence numbered 867.

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 breadth requirements by either transferring equivalent course credits or by completing breadth requirements at UWGB.

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 UWGB general-education requirements.

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

Assessment Program Requirement

The assessment program is an opportunity for students to get an objective analysis of their academic knowledge and 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 by:

- offering directions for "fine tuning" their course of studies and elective course selection;
- providing students' advisers with information to improve academic advising;
- serving as a guide for 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



interpretation of the results and an analysis of their skills and knowledge in 23 specific areas.

Students can choose from several dates for each session. 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 will lose their eligibility to register for the next semester.

The Academic Advising and Registrar's offices can provide information.

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 at UWGB.

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

The resident requirement does not apply to Extended Degree students.

Remedial Work

New freshmen whose scores on the English portion of the ACT test and/or on the Wisconsin Mathematics Placement Test (WMPT) indicate a low probability for success in those subjects at the college level must complete remedial courses by the end of the second semester of enrollment. Information about scores and course placement is in the current *Academic Advising Handbook*.

SPECIAL LEARNING OPPORTUNITIES

International Education

UW-Green Bay 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 each student's education at UWGB by providing opportunities for interaction with students and faculty from other countries. The small town and welcoming atmosphere of UWGB attracts many international students and faculty to the University. Their ideas and viewpoints, gathered from all areas of the world, are shared in the classroom setting, and informally, providing a cosmopolitan approach to issues for all students at UWGB. Also, visits by international faculty members to the campus to lecture and teach enable students to broaden the scope of their education and benefit from international perspectives.

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 way UWGB provides international education 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 or between semesters 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, Germany; Aalborg University, Denmark; University of Yucatan, Mexico; Universities at L'viv 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 or take advantage of UWGB's intensive Spanish language program in Guatemala. Students may study for a semester or a year at these universities.

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 105 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. The Registrar's Office can supply information.

Credit by Examination

Students may be able to qualify for credit by examination if they have studied at non-accredited institutions, pursued special interests independently, or gained experience in the community, in the armed forces, 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 (PEP) 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 UWGB.

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

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 Arts in 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 Project

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 students the opportunity to earn distinction in the major through a combination of grade point average and completion of a substantial project. Students seeking all-university honors must complete an honors project in addition to achieving a specific grade point average in order to qualify for graduation with *summa cum laude* honors. Qualifications for both are described in the academic rules and regulations.

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 and gain 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 special publications.

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 Program 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.



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 modifications 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 nine 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:
 - at least one course must have a historical perspective;
 - 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;
- an 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

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 University 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

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 and 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)

Detailed information on graduate programs at UW-Green Bay is available from the Office of Graduate Studies.

PROGRAMS OF STUDY / Majors and Minors

Accounting

Disciplinary Major or Minor

Associate Professor — Karl Zehms (chairperson).
Assistant Professors — James Doering, Iris Pirozzoli, Marilyn Sagrillo.
Lecturers — Lawrence Franke, Brent Hussin, Ann Selk.

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

Graduates are qualified to take professional accounting examinations, including the 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 30 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.

The program provides considerable exposure to the liberal arts and develops the critical thinking, problem solving, interpersonal, communication, quantitative, and computer skills needed by graduates to successfully serve as leaders within modern organizations. The program also addresses contemporary organizational issues in specific classes and throughout courses, such as the role of accounting in continuous quality improvement, implementation of computer technology and advances in accounting information systems, and accounting ethics.

The accounting curriculum is a rigorous and problem-focused program comprised of three integrated elements: supporting, core, and major courses. The supporting and core courses provide breadth and introduce each student to the foundations of business knowledge, including communication, economics, statistics, computers, accounting, finance, management, and marketing. The major courses provide depth and prepare each accounting student thoroughly for a professional career. In addition, accounting students complete a business minor which provides additional breadth. Each student works with a faculty adviser to plan a program which meets the student's personal and professional goals.

Faculty are committed to serving the needs of business and society, and to providing an outstanding learning environment. Excellent teaching and high levels of student participation are valued. Upper-level classes frequently number fewer than 30, 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 or evening.

The program offers opportunities to meet business professionals and gain practical experience. An active accounting student organization supports these efforts and helps students to meet others with like interests. Faculty members encourage participation in the internship program, through which students learn while working in real business settings.

Entrance and Exit Requirements

Entering freshmen should declare a pre-accounting major when they enroll. To be 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 of 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 Macro Economic Analysis, 3 credits

298-203 Micro Economic Analysis, 3 credits

352-105 Expository Writing, 3 credits

OR

352-225 Writing about the Arts and Humanities, 3 credits

OR

352-226 Writing about the Social Sciences, 3 credits

OR

352-227 Writing About the Sciences, 3 credits

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

OR

Another calculus course

Upper-Level Courses, 70 credits

Core courses, 38 credits:

107-300 Introductory Accounting, 4 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 Algebra, 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 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 Macro Economic Analysis, 3 credits

OR

298-203 Micro Economic Analysis, 3 credits

352-105 Expository Writing, 3 credits

OR

352-225 Writing About the Arts and Humanities, 3 credits

OR

352-226 Writing About the Social Sciences, 3 credits

OR

352-227 Writing About the Sciences, 3 credits

Upper-Level Courses, 23 credits

107-300 Introductory Accounting, 4 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

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

American Indian Studies**Interdisciplinary Minor**

Professors — Estella Lauter, Terence O'Grady.

Associate Professors — Clifford Abbott, Orville Clark, Peter Kellogg.

Assistant Professors — Carol Cornelius (chairperson), Denise Sweet.

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: Wisconsin Indians, 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:

— The Quincentenary: American Indians and Columbus

— Contemporary Issues

— Tribal Law and Legal Rights

— Environmental Issues

— Social Work, History, Economics

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

351-333 Literary Themes: Major Works of American Indian Literature, 3 credits

493-371 American Indian Art and Artists, 3 credits

493-372 American Indian Mythology and Literature, 3 credits

493-374 Wisconsin Indians Ethnohistory, 2-3 credits

Anthropology

Disciplinary Minor

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

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

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

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

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

The adviser can offer suggestions about career-oriented programs to combine with anthropology. 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 both in 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 Pum, Karon Winzenz.
Associate Professors — Ronald Baba, David Damkoehler, Carol Emmons (chairperson), Curt Heuer.
Assistant Professors — Jeff Benzow, Christine Davitt.
Other Instructional Staff — Tomas Galaty, Robert Ratajczak, Steven Wadzinski.

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 education**, which leads to credentials for teaching licensure through the Wisconsin Department of Public Instruction.
- **Art management**, which offers preparation for a wide range of careers in museums, art centers, galleries, collections, and other art organizations.

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

Facilities include well-equipped studios in painting, drawing, sculpture,

ceramics, photography, computer graphics, 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 provides 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.

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

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 and 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: 1945 – Present, 3 credits

Studio courses, 18 credits:

The design core listed above is required for all upper-level studio courses. Of the total 18 credit studio requirement, 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: 1945 – Present, 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 Internship in Art Management, 3-9 credits

Related Courses (recommended)**Communication skills:**

- 246-133 Fundamentals of Public Address, 3 credits
- 352-105 Expository Writing, 3 credits
- 352-304 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: 1945 - Present, 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: 1945 - Present, 3 credits

Biology

Disciplinary Major or Minor

Professors — Hallett J. Harris, Michael D. Morgan (chairperson), V.M.G. Nair, Paul E. Sager, Leander J. Schwartz.

Associate Professors — Robert W. Howe, Charles A. Ihrke, Warren V. Johnson, Dorothea B. Sager, Richard J. Stevens.

Assistant Professors — James O. Marker, Donna L. 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 270-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 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, environmental policy and planning, or business administration.

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
- 352-105 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**

- 204-301 Evolutionary Processes, 3 credits
- 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
- 478-318 Mammalian Reproduction, 3 credits
- 478-402 Human Physiology, 3 credits
- 478-413 Neurophysiology, 3 credits

■ **Field Botany 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
- 204-402 Advanced Microbiology, 3 credits
- 204-407 Molecular Biology, 3 credits
- 204-408 Molecular Biology Laboratory, 1 credit
- 225-330 Biochemistry, 3 credits
- 225-331 Biochemistry Laboratory, 1 credit

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 the core for the major.

Business Administration

Interdisciplinary Major or Minor

Professor — David Outcalt.

Associate Professors — William Conley, A. Sam Ghanty, John Harris, Robert Obenberger, Michael Troyer, Karl Zehms (chairperson).
Assistant Professors — James Doering, Robert Nagy, Iris Pirozzoli, Marilyn Sagrillo, Peter Smith, Sandhya Sridhar.

Lecturers — Lucy Arendt, Laurey Berk, Lawrence Franke, Brent Hussin, Donald McCartney, Daniel Spielmann, 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.

Business students gain the breadth and depth required of today's business employees through their general education, major, and minor courses.

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

The business major is an interdisciplinary and problem-focused program comprised of three integrated elements: supporting, core, and emphasis courses. The supporting and core courses provide breadth and introduce each student to the foundations of business knowledge, including communication, economics, statistics, computers, accounting, finance, management, or marketing. In addition, business students are required to select a nonbusiness minor which serves to enhance their career opportunities and personal interests. Each student works with a faculty adviser to plan a program which meets the student's personal and professional goals.

Faculty are committed to serving the needs of business and society, and to providing an outstanding learning environment. Excellent teaching and high levels of student participation are valued. Upper-level classes frequently number fewer than 35 students, allowing close work with faculty.

A distinctive feature of the program is that the majority of upper-level courses include a practical project component, offering the opportunity to apply the problem-solving theories and concepts learned in the classroom to real situations. Alumni say these experiences increase their value to employers, and set them apart from traditional business program graduates.

The program offers additional opportunities to meet business professionals and gain practical experience. Active student organizations in finance, marketing, and quality management support these efforts and help students to meet others with like interests. Faculty members encourage participation in the internship program, through which students learn while working in real business settings.

Program Entrance and Exit Requirements

Entering freshmen should declare a pre-business major when they enroll. To be 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 36 earned credits.

OR

— matriculated at a college or university fall 1992 or thereafter and have a 2.5 grade point average on a total of 36 earned 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 Macro Economic Analysis, 3 credits

298-203 Micro Economic Analysis, 3 credits

352-105 Expository Writing, 3 credits

OR

352-225 Writing About the Arts and Humanities, 3 credits

OR

352-226 Writing About the Social Sciences, 3 credits

OR

352-227 Writing About the Sciences, 3 credits

Core Courses, 19 credits

107-300 Introductory Accounting, 4 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

Required:

216-389 Organizational Behavior, 3 credits

216-482 Strategic Management, 3 credits

216-489 Management and Organizational Theory, 3 credits

Select two:

216-317 Computer Techniques for Business Decisions, 3 credits

216-362 Human Resource Management, 3 credits

216-366 Collective Bargaining, 3 credits

216-384 Industrial Management, 3 credits

216-386 Small Business Management, 3 credits

216-452 Advanced Microcomputer Business Applications, 3 credits

216-462 Seminar in Human Resource Management, 3 credits

216-467 Compensation and Benefits Planning, 3 credits

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

216-488 Rational Decision Making in Administration, 3 credits

246-335 Organizational Communication, 3 credits

■ Marketing Emphasis

Marketing students select one of two specializations:

Marketing Communications

216-325 Public Relations, 3 credits

216-327 Selling and Sales Management, 3 credits

216-423 Advertising, 3 credits

216-425 Promotional Strategy, 3 credits

216-428 Consumer Behavior, 3 credits

Strategic Marketing

216-424 Marketing Research, 3 credits

216-425 Promotional Strategy, 3 credits

216-426 Marketing Management, 3 credits

216-428 Consumer Behavior, 3 credits

216-427 Practicum in Marketing Research, 3 credits

OR

216-327 Selling and Sales Management, 3 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, 3 credits

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

298-202 Macro Economics Analysis, 3 credits

298-203 Micro Economics Analysis, 3 credits

216-215 Introduction to Business Statistics, 3 credits

OR

600-260 Introductory Statistics, 4 credits

OR

255-305 Social Science Statistics, 4 credits

Upper-Level Courses, 13 credits

107-300 Introductory Accounting, 4 credits

216-322 Introductory Marketing, 3 credits

216-343 Corporation Finance, 3 credits

216-382 Introductory Management, 3 credits

Chemistry

Disciplinary Major or Minor

Professor — Jack C. Norman, Ronald H. Starkey, Thomas E. Van Koevering, James H. Wiersma.

Associate Professors — Dawson C. Deese, Warren V. Johnson (chairperson).

Assistant Professor — John M. Lyon.

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 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 spectrometers, ultracentrifuge, gas-liquid chromatographs, high-performance liquid chromatographs, and gamma-ray and liquid scintillation counters.

UWGB faculty are active in research on pulp and paper, water quality, air pollution, radon, biochemistry, and molecular biology. Experience in research is very important when entering the job market and in applying to graduate and professional schools. About half of UWGB chemistry majors 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 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
- 225-420 Polymer Chemistry, 3 credits

American Chemical Society-Certified Major

Required courses as stated above plus:

- 225-410 Inorganic Chemistry, 3 credits
 - 225-411 Inorganic Chemistry Laboratory, 1 credit
- One additional upper-level chemistry lecture and laboratory course (see above list of electives), 4 credits
- 225-498 Independent Study, 1-4 credits
 - 266-155 Microcomputers and End-User Applications, 3 credits

OR

- 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 (including laboratory) in the areas of organic chemistry and analytical chemistry.

Electives include:

Those electives listed for a chemistry major.

- 225-328 Physiological Chemistry, 3 credits
- 225-434 Environmental Chemistry, 3 credits
- 225-435 Environmental Chemistry Laboratory, 1 credit

Communication and the Arts

Interdisciplinary Major or Minor

Professors — Robert Bauer, Trinidad Chavez, Arthur Cohrs, Jerry Dell, Louis Erdmann, Lovell Ives, Donald Larmouth, Terence O'Grady, Robert Pum, Karon Winzenz.

Associate Professors — Margaret Chamon, David Damkoehler, Carol Emmons, Jeffrey Entwistle (chairperson), Eugenia Erdmann, Curtis Heuer, Garry Owens, Laura Riddle.

Assistant Professors — Jeffrey Benzow, Cheryl Grosso, Victoria Goff, Susan Kline-Heim, Sarah Meredith, John Salerno.

Lecturers — 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 and 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 regional studies 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 whole 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, 3 credits

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

242-221 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 core courses:**

- 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: Introduction to World Music, 3 credits (may be repeated with a different subject)
- 242-370 Modern American Culture, 3 credits
- 242-380 The Arts: London, 3 credits
- 242-395 Images of Women in Contemporary Art, 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 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:

- 242-221 Popular Music Since 1955, 3 credits
- 242-231 Introduction to Graphic Communications, 4 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**Required core courses:**

- 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

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
- 242-395 Images of Women in Contemporary Art, 3 credits

■ Environmental Design**Lower-Level Courses, 15 credits****Required:**

- 168-106 Design Methods, 3 credits
- 951-210 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, 4 credits
- 951-200 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
- 951-325 Behavior in Designed Environments, 3 credits
- 951-412 Urban Planning, 3 credits

Nine credits chosen from:

- 951-436 Environmental Design Studio I, 3 credits (individual scale)
- 242-437 Environmental Design Studio II, 3 credits (small-group scale)
- 951-438 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, 53 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, 4 credits
- 246-102 Introduction to Mass Communications, 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
- 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 Studio III, 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

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 credits
- 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, 4 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
- 352-105 Expository Writing, 3 credits

From 22 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, 4 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

Choose remaining credits with faculty advice.

Communication Processes

Disciplinary Major or Minor

Professors — Jerry Dell (photography) (chairperson), Donald Larmouth (linguistics, scientific and technical communication, ESL), Timothy Meyer (electronic media, public relations).

Associate Professors — Clifford Abbott (linguistics), Phillip Clampitt (organizational communication), Charles Matter (cognitive and perceptual psychology).

Assistant Professors — Jeffrey Benzow (graphic communication), Victoria Goff (print journalism).

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.

Communications processes offers six areas of emphasis, although one is not required:

■ 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 and 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 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 public and environmental 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 Communications, 4 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 Communication Processes: An Introduction, 3 credits (required for all majors in communication processes)
- 246-201 Human Information Processing, 3 credits (required for all majors in communication processes)
- 246-203 Newswriting Laboratory, 3 credits
- 246-243 Introduction to Photography, 3 credits
- 246-253 Practicum in Print Journalism I, 1-3 credits

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 Technologies, 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 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
- 246-337 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, 4 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 Communication Processes: An Introduction, 3 credits
(required of all minors in communication processes)
- 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

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 communication** 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 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 Study 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 a 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, Joseph M. Moran (chairperson), 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 urban and regional studies or, alternatively, in environmental policy and planning or public and environmental affairs. 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 certification 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 352-105 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

- 362-343 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, 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 — Kumar Kangayappan, Ismail Shariff (chairperson), John Stoll.

Assistant Professor — Ann Jennings.

Economics focuses on the allocation and distribution of scarce resources. As a social science, economics is fundamentally about people — their needs, wants and behavior, and the institutions they construct.

As a discipline focusing on scarcity, economics includes the study of organizations and institutions that influence resource allocation, including businesses, governments, households, product markets, and the markets for land, labor, capital, and innovation among others. Understanding these organizations provides insights into problems such as inflation, unemployment, government regulation, environmental degradation, poverty, and sustainable economic systems with or without growth.

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

Economics majors must choose an interdisciplinary minor. The majority of economics majors at UWGB choose a minor in business with emphases in marketing or finance. Other interdisciplinary programs which may be chosen include urban and regional studies, environmental science, languages or humanistic studies.

The broad training received by economic students in incentive based decision-making creates a variety of career opportunities. Many UW-Green Bay economics majors enter careers in business, government agencies, and nonprofit organizations directly after graduation. Individuals trained in economics are frequently employed by banks and investment firms, local and state 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 may also desire to become certified teachers. In such cases, programs should be designed jointly with appropriate advisers in both economics and the education program at UWGB.

Requirements for the Major

Supporting Courses, 17 credits required

298-202 Macro Economics Analysis, 3 credits

298-203 Micro Economics Analysis, 3 credits

298-207 Micro Economics Laboratory, 1 credit

600-260 Introductory Statistics, 4 credits (required)

OR

255-205 Social Science Statistics, 4 credits

OR

216-215 Introduction to Business Statistics, 3 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

Required Upper-Level Courses, 24 credits

298-302 Intermediate Macro Economic Theory, 3 credits

298-303 Intermediate Micro Economic Theory, 3 credits

298-307 History of Economic Thought, 3 credits

Electives, 15 credits chosen from:

298-301 Economic and Social Security, 3 credits

298-304 Contemporary Labor Markets, 3 credits

298-308 Business Cycles, 3 credits

298-330 Money and Banking, 3 credits

298-402 Environmental and Resource Economics, 3 credits

298-403 International Trade, 3 credits

298-404 Economics of Developing Areas, 3 credits

298-406 Comparative Economic Systems and Institutions, 3 credits

298-409 Public Finance and Fiscal Policy, 3 credits

298-453 Cost Benefit Analysis, 3 credits

298-485 Managerial Economics, 3 credits

951-309 Urban and Regional Economic Theory, 3 credits

951-340 Economics of Land Use, 3 credits

951-342 Community Economic Development, 3 credits

Requirements for the Minor

Supporting Courses, 9 credits required

298-202 Macro Economics Analysis, 3 credits

298-203 Micro Economics Analysis, 3 credits

And one of the following:

216-215 Introduction to Business Statistics, 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, George O'Hearn, Robert Purn, Thomas Van Koevering (chairperson).

Associate Professors — Dennis Bryan, Garry Owens, Richard Presnell, Philip Thompson.

Assistant Professors — Jeffrey Aaron, Theodor Korithoski, Barbara Law, Timothy Sewall, Sandra Stokes, 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 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 by completing additional courses and requirements.

Students who desire secondary-level teaching licensure will fulfill an interdisciplinary minor in education to support a subject-matter teaching major as required and approved by the Department of Public Instruction. They will graduate with the bachelor's degree in their major subject, and 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 licensure candidates include 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 teaching educational settings, including work with ethnic, cultural and economic groups, 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 pre-school/kindergarten-3 or pre-school/kindergarten-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)	French (6-12 or K-12) (M, m)
Art (K-12) (M)	Geography (M, m)
Athletic coaching certification	German (6-12 or K-12) (M, m)
Biology (M, m)	History (M, m)
Chemistry (M, m)	Journalism/Mass Media (M, m)
Computer science (M, m)	Mathematics (6-9) (m); 6-12 (M, m)
Earth science (M, m)	Music-choral (6-12) (M)
Economics (M, m)	Music-instrumental (6-12 or K-12) (M)
English (6-9) (m); (6-12) (M)	Music-general (K-9 or K-12) (M)
English as a second language	Native American Languages:
(elementary, 6-12 or K-12)(M, m)	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 agencies, 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. Seventy-five percent of those with elementary licensure and 79 percent with secondary licensure were employed in education. Employment opportunities do vary depending upon the areas of licensure and geographic area.

Program Entrance Requirements

Preliminary Application. Students planning to complete a teacher preparation program should indicate their intent when they apply for admission to UWGB.

In addition, at the time of registration, students should indicate their specific program interest: Pre-School/Kindergarten/Elementary; Elementary; Elementary/Middle School; Middle School/Secondary; or Secondary.

Any student in good standing may enroll in supporting courses (100-200 level) in education.

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

Application Process and Requirements. All application materials (e.g., forms, guidelines, due dates) are available in the Education Office on or before the posted application deadlines.

Students must meet the following requirements for application to the UWGB teacher education program:

1. Be a matriculated student and have earned a minimum of 40 degree credits with at least a 2.75 grade point average on a 4.0 scale. These credits may be any combination of transfer or UWGB credits. Only courses in curricular areas at UWGB and in accord with UWGB credit limitation policies are considered in computing GPA and credits. 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. Complete 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.

The PPST must be taken approximately six (6) weeks prior to application deadline for admission to teacher education program. Students are highly encouraged to take the PPST during the second semester of their freshman year or first semester of their sophomore year. Applicants to teacher edu-

education who matriculated at any accredited college or university prior to July 1, 1987, and who have completed a bachelor's degree, are not required to take the PPST.

NOTE: Students who do not meet either the GPA (#1 requirement) or the PPST (#2 requirement) may petition for application consideration. A completed petition must accompany the application. Additional information and petition forms are available from the Education Office.

3. Complete communication requirement as specified on the Application Criteria/Guideline Form available in the Education Office.
4. Submit a copy of high school transcript on file in the Education Office.
5. Complete and submit required field and faculty recommendation forms. Forms and guidelines are available in the Education Office.
6. Be free from physical or mental/psychological impairment which would substantially limit a person from performing the essential functions of a teacher candidate or teacher. Such physical or mental/psychological impairment does not disqualify a person who, with reasonable accommodations, can perform the essential functions of a teacher. An examination and recommendation by appropriate medical and/or other professional specialist will be required if deemed necessary. The University will make reasonable accommodations for students with disabilities.

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

In accordance with UWGB policy, persons denied admission are entitled to appeal.

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.

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

Note: The faculty in education are in the process of revising the curriculum and courses in transfer education. There are likely to be substantial changes in the program. It is your responsibility to be informed concerning any new changes and/or requirements.

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
- Language: French, German, Spanish
- Mathematics
- Onida 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 DPI approved majors listed 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****(Prekindergarten-6 or prekindergarten-9)**

- 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 Schools, 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 School Settings, 1 credit
- 302-400 Perspectives on 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-xxx Integrated Methods for Teaching Kindergarten, 3 credits
- 302-445 Early Childhood Center Administration and Community Resource Management, 3 credits
- 302-452 Principles of Middle-Level Education, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-332 Middle Childhood and Adolescence, 3 credits
- 481-333 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.

Prekindergarten-9 licensure requires a second minor in addition to the early childhood minor.

■ 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 School Teacher, 2 credits
- 302-306 Teaching Health and Physical Education in Elementary and Middle School, 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 School Settings, 1 credit
- 302-400 Perspectives on 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
- 317 Teaching (specific subjects) in Middle/Secondary Schools, 3 credits
- 302-322 Educational Psychology, 3 credits
- 302-351 Field Project in School Settings, 1 credit
- 302-400 Perspectives on Education, Schools, and Society in the United States, 3 credits
- 302-401
- 403 Student-Teaching in the Middle/Secondary Schools, 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.

Many of the engineering students at UWGB enroll in 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 1994 were:

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

In addition, engineering students must receive a BC or better in 352-100 College Writing (or 352-105 Expository Writing, or 352-164 ESL: Expository Writing II), to qualify for the UWM English proficiency essay examination.

Students in 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 credits in cultural diversity

The above 18 credits must consist of courses from no more than four departments. 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.

There are also accredited engineering programs at UW-Madison and UW-Platteville. Most of the courses described above are also transferable to these schools (or other private or out-of-state engineering programs). Students interested in either the Madison or Platteville programs should contact a faculty adviser for more information.

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, 3 credits
- 325-234 Linear Systems Analysis, 4 credits
- 325-251 Programming for Science and Engineering, 3 credits
- 325-313 Mechanics I, 3 credits
- 352-100 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 courses 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 (coordinator), Martin Greenberg, Elmer Havens, Walter Herrscher, Estella Lauter, E. Michael Thron.

Associate Professor — Michael Murphy.

Assistant Professors — Brian Sutton, Denise Sweet.

Instructor — Joan Thron.

Lecturers — Jo Chern, Dianne Marlett, Linda Toonen, Carol Van Egeren.

Courses in English develop students' understanding of important works of American and English literature, give them 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 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. 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 preferences and 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

352-105 Expository Writing, 3 credits (waived for qualified students)
OR

352-225 Writing About the Arts and Humanities, 3 credits
(waived for qualified students)

Minimum of 9 credits from:

- 351-104 Introduction to Literature, 3 credits
- 351-107 The Short Story, 3 credits
- 351-206 Women in Literature, 3 credits
- 351-212 Introduction to Creative Writing: Fiction, 3 credits
- 351-213 Introduction to Creative Writing: Poetry, 3 credits
- 351-214 Introduction to English Literature I, 3 credits
- 351-215 Introduction to English Literature II, 3 credits
- 351-216 Introduction to American Literature I, 3 credits
- 351-217 Introduction to American Literature II, 3 credits

Upper-Level Courses, 24 credits

Required:

- 351-323 Approaches to Literature, 3 credits
- 351-431 Shakespeare, 3-4 credits

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

- 351-315 The English Novel: 1700-1860, 3 credits
- 351-335 Literary Eras: Medieval, 3 credits
- 351-335 Literary Eras: Renaissance, 3 credits

Minimum of 3 credits from any English course on world literature outside the United States and Great Britain, such as:

- 351-333 Literary Themes: French Women's Autobiographical Writing, 3 credits
- 351-335 Literary Eras: New English Literature, 3 credits
- 397-352 Major Foreign Poetry: French, 3 credits
- 424-350 Major Foreign Drama: German, 3 credits
- 908-351 Major Foreign Prose Fiction: Spanish and Latin America, 3 credits

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

- 351-302 Fiction Writing Workshop, 3 credits
- 351-303 Poetry Writing Workshop, 3 credits
- 351-310 Major English Drama, 3 credits
- 351-314 Major English Poetry, 3 credits
- 351-315 English Novel: 1700-1860, 3 credits
- 351-316 English Novel: 1850-Present, 3 credits
- 351-330 Major American Drama, 3 credits
- 351-331 Major American Prose Fiction, 3 credits
- 351-332 Major American Poetry, 3 credits
- 351-333 Literary Themes, 3 credits
- 351-335 Literary Eras, 3 credits
- 351-336 American Ethnic Literature, 3 credits
- 351-434 Major British Writer(s), 3 credits
- 351-483 Folklore, 3 credits
- 351-490 Seminar in Literature, 3 credits
- 352-304 Advanced Expository Writing, 3 credits

Content may vary; some of above may be repeated for credit. See adviser.

Area of Emphasis

■ Creative Writing

Supporting Courses, 9-12 credits

352-105 Expository Writing, 3 credits (waived for qualified students)
OR

352-225 Writing About the Arts and Humanities, 3 credits
(waived for qualified students)

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

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

Upper-Level Courses, 24 credits

Required:

- 351-431 Shakespeare, 3-4 credits

Six to 12 credits in creative writing courses such as:

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

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

Requirements for the Minor

Lower-Level Courses, 9-12 credits

352-105 Expository Writing, 3 credits (waived for qualified students)
OR

352-225 Writing About the Arts and Humanities, 3 credits
(waived for qualified students)

Minimum of 9 credits from:

- 351-104 Introduction to Literature, 3 credits
- 351-206 Women in Literature, 3 credits
- 351-212 Introduction to Creative Writing: Fiction, 3 credits
- 351-213 Introduction to Creative Writing: Poetry, 3 credits
- 351-214 Introduction to English Literature I, 3 credits
- 351-215 Introduction to English Literature II, 3 credits
- 351-216 Introduction to American Literature I, 3 credits
- 351-217 Introduction to American Literature II, 3 credits
- 352-107 The Short Story, 3 credits

Upper-Level Courses, 12 credits

351-431 Shakespeare, 3-4 credits

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

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

Environmental Policy and Planning

Interdisciplinary Major or Minor

Professors — Daniel J. Alesch, Michael E. Kraft, William R. Niedzwiedz, John R. Stoll.

Associate Professors — David M. Littig (chairperson), Robert A. Mendelsohn.

Assistant Professors — Scott R. Furlong, Denise L. Scheberle.

Environmental policy and planning (EPP) is an environmental studies program based in the social sciences. It is designed to prepare students for a variety of challenging professions involving the planning, analysis, design, and administration of policies and programs dealing with the natural and human-made environment. It also provides an excellent preparation for graduate studies in environmental studies, public policy, public administration, law, urban and regional planning, and related fields. A major in environmental policy and planning develops knowledge and skills in the environmental sciences, planning and decision-making, public, social, economic and political processes, and the analytic capacities to participate in the processes which will shape environmental quality in the future.

All environmental policy and planning majors engage in both theoretical and applied studies, and there is considerable latitude for students to select a problem focus for study both within one of the two program emphases and in individual courses. The two program emphases which majors can choose from are public policy or planning. Applied field experience can be obtained through the internship program administered by the department. In some circumstances an internship may not be appropriate and an alternative will be worked out with an adviser.

All majors in environmental policy and planning are required to fulfill requirements in: (1) required supporting and core courses (25 credits), and (2) an emphasis within the major consisting of public policy or planning (15 credits). In addition to the requirements in the major, there are a number of highly recommended supporting courses. Some students may have acquired competencies in these subjects without having taken the courses, whereas others may need to enroll formally in these courses. Students need to discuss these recommended courses and competencies with the program advisers to determine an appropriate course of action for their individual academic plans.

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

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

A minor in environmental policy and planning is similar to the major in developing knowledge and skills in planning, decision-making, public policy, environmental sciences, political and economic processes, as well as the analytic capacities to participate in decision-making. An interdisciplinary minor in EPP may represent a good choice for students who wish

to major in environmental sciences, public administration, political science, economics, urban and regional studies, social change and development, and a number of other programs.

Requirements for the Major

Recommended Supporting Courses

- 298-202 Macro Economic Analysis, 3 credits
- 298-203 Micro Economic Analysis, 3 credits
- 266-155 Microcomputers and End-User Applications, 3 credits

778-101 American Government and Politics, 3 credits

OR

778-100 Introduction to Political Science, 3 credits

835-215 Introduction to Public Administration, 3 credits

OR

951-200 Introduction to Urban Studies, 3 credits

Required Supporting Courses, 19-21 credits

Introductory Courses:

- 362-102 Introduction to Environmental Science, 3 credits
- 835-202 Introduction to Public Policy, 3 credits

And at least two of the following:

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

296-202 Physical Geology, 4 credits

OR

296-102 Introduction to Earth Science, 3 credits

362-188 Issues in Biological Conservation, 3 credits

OR

362-260 Energy and Society, 3 credits

Tool Courses, 7 credits:

255-205 Social Science Statistics, 4 credits

OR

600-260 Introductory Statistics, 4 credits

255-301 Foundations for Social Research, 3 credits

Upper-Level Courses, 15-16 credits

835-301 Environmental Politics and Policy, 3 credits

835-322 Environmental Planning, 3 credits

835-378 Environmental Law, 3 credits

And at least two of the following:

362-302 Principles of Ecology, 3 credits

362-303 Conservation of Natural Resources, 3 credits

362-330 Hydrology, 3 credits

362-342 Environmental Geology, 3 credits

362-401 Stream Ecology, 3 credits

362-471 Biological Resource Management I, 3 credits

362-472 Biological Resource Management II, 3 credits

362-475 Ecological Dynamics, 3 credits

Internship (optional)

835-497 Internship in Public and Environmental Affairs, 3-12 credits

Areas of Emphasis, 15 credits

■ Public Policy Emphasis

Required:

835-408 Public Policy Analysis, 3 credits

And four of the following, 12 credits:

778-410 Intergovernmental Relations, 3 credits

835-306 Regulatory Policy and Administration, 3 credits

835-314 Administrative Law, 3 credits

835-315 Public and Nonprofit Management, 3 credits

835-356 Environmental Impact Analysis, 3 credits

835-402 Environmental and Resource Economics, 3 credits

835-406 State and Local Government, 3 credits

835-451 Decision Theory and Methods, 3 credits

835-453 Cost-Benefit Analysis, 3 credits

835-461 Special Topics in Public and Environmental Affairs, 3 credits

■ Planning Emphasis

Required:

951-412 Urban and Regional Planning, 3 credits

And four of the following, 12 credits:

835-309 Urban and Regional Economic Theory, 3 credits

835-323 Land-Use Controls, 3 credits

835-350 Geographic Information Systems, 3 credits

835-356 Environmental Impact Analysis, 3 credits

835-402 Environmental and Resource Economics, 3 credits

835-421 Techniques and Methods of Planning Analysis, 3 credits

835-452 Planning Theory and Methods, 3 credits

835-461 Special Topics in Public and Environmental Affairs, 3 credits

951-340 Economics of Land Use, 3 credits

951-342 Community Economic Development, 3 credits

951-351 Transportation and the City, 3 credits

Requirements for the Minor

Required Supporting Courses, 12 credits

Introductory courses:

298-203 Micro Economic Analysis, 3 credits

362-102 Introduction to Environmental Science, 3 credits

Two of the following:

778-101 American Government and Politics, 3 credits

951-200 Introduction to Urban Studies, 3 credits

835-202 Introduction to Public Policy, 3 credits

835-215 Introduction to Public Administration, 3 credits

Upper-Level Requirements, 15 credits

835-301 Environmental Policy and Administration, 3 credits

835-322 Environmental Planning, 3 credits

Two of the following:

835-306 Regulatory Policy and Administration, 3 credits

835-315 Public and Nonprofit Management, 3 credits

835-356 Environmental Impact Analysis, 3 credits

835-378 Environmental Law, 3 credits

835-402 Environmental and Resource Economics, 3 credits

835-408 Public Policy Analysis, 3 credits

835-451 Decision Theory and Methods, 3 credits

835-453 Cost-Benefit Analysis, 3 credits

One of the following:

835-309 Urban and Regional Economic Theory, 3 credits

835-323 Land-Use Controls, 3 credits

835-452 Planning Theory and Methods, 3 credits

951-340 Economics of Land Use, 3 credits

951-412 Urban and Regional Planning, 3 credits

Environmental Science

Interdisciplinary Major or Minor

Professors — Harold J. Day, Steven I. Dutch (chairperson), Fritz A. Fischbach, Hallett J. Harris, David Jowett, Anjani K. Mehra, Joseph Moran, Michael D. Morgan, V.M.G. Nair, Jack C. Norman, Charles R. Rhyner, Paul E. Sager, Leander J. Schwartz, Nancy J. Sell, Ronald H. Starkey, Ronald D. Stieglitz, Robert B. Wenger, James H. Wiersma.
Associate Professors — Gregory J. Davis, Robert W. Howe, Robert W. Lanz, Nikitas L. Petrakopoulos.
Assistant Professors — Tian-You Hu, John M. Lyon.
Lecturers — Gary A. Fewless, Gary C. Wardall.
Other Instructional Staff — Steven C. Bennett, Thomas C. Erdman, Lynn L. Frederick, Mary C. Kohrell, Clifford E. Kraft, Jane M. Rank.

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 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.

While many universities are just beginning to recognize the need for environmental science programs, UW-Green Bay has had 20 years of teaching and research experience in the field. Faculty members are actively 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 undergraduates to become involved in research projects.

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

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 available.

A significant number of the graduates of this major 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 environmental responsibilities. Many UWGB environmental science graduates go on to advanced study in environmental science or scientific disciplines.

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

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, 34 credits

Required core courses, 19 credits:

- 362-471 Biological Resources Management I, 3 credits
- 362-472 Biological Resources Management II, 3 credits
- 362-302 Principles of Ecology, 3 credits
- 362-390 Scientific Applications of Computing, 3 credits
- 362-401 Stream Ecology, 3 credits
- OR
- 362-403 Limnology, 3 credits
- 362-475 Ecological Dynamics, 4 credits

Field biology courses, 6 credits:

- 204-310 Plant Taxonomy, 3 credits
- 204-320 Field Botany, 3 credits
- 204-342 Ornithology, 3 credits
- 204-343 Mammalogy, 3 credits
- 362-401 Stream Ecology, 3 credits
- OR
- 362-403 Limnology, 3 credits

Biophysical interface courses, 6 credits:

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

Socioeconomic courses, 3 credits:

- 298-402 Environmental and Resource Economics, 3 credits
- 778/
- 835-301 Environmental Politics and Policy, 3 credits
- 835-356 Environmental Impact Analysis, 3 credits
- 835-378 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:

296-340 Rock and Mineral Resources, 3 credits

362-320 The Soil Environment, 3 credits

362-321 The Soil Environment Laboratory, 1 credit

362-330 Hydrology, 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 Industrial Pollution Control Techniques and
-319 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 Environmental and Resource Economics, 3 credits

778-301 Environmental Politics and Policy, 3 credits

835-306 Regulatory Policy and Administration, 3 credits

835-322 Environmental Planning, 3 credits

835-323 Land-Use Controls, 3 credits

835-356 Environmental Impact Analysis, 3 credits

835-378 Environmental Law, 3 credits

951-340 Economics of Land Use, 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 communications 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 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 often select communication and the arts. Depending on 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 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

397-202 Intermediate French II, 4 credits

(can be earned through retroactive credits)

397-225 French Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits

- 397-325 Advanced Conversation and Composition, 3 credits
 397-329 Representative French Authors, 3 credits
 397-354 France Today, 3 credits

OR

- 397-355 Le Monde Francophone, 3 credits

Minimum of 3 credits from:

- 397-329 Representative French Authors, 3 credits
 397-333 French Literary Themes, 3 credits
 397-335 French Literary Eras, 3 credits
 397-350 Major French Drama, 3 credits
 397-351 Major French Fiction, 3 credits
 397-498 Independent Study, 3 credits

Minimum of 12 credits from:

- 397-329 Representative French Authors, 3 credits
 397-330 French Television for Conversation, 3 credits
 397-333 French Literary Themes, 3 credits
 397-335 French Literary Eras, 3 credits
 397-345 Advanced French Grammar and Translation, 3 credits
 397-346 French Phonetics and Public Speaking, 3 credits
 397-350 Major French Drama, 3 credits
 397-351 Major French Fiction, 3 credits
 397-354 France Today, 3 credits
 397-355 Le Monde Francophone, 3 credits
 397-366 Study Abroad: Paris, 3 credits
 397-483 Business French, 3 credits
 397-498 Independent Study (in advanced language, literature, or cultural studies; with adviser's consent)
 493-376 Cultural Conflict in French Canada, 3 credits

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

Requirements for the Minor**Lower-Level Courses, 7 credits**

- 397-202 Intermediate French II, 4 credits
 (can be earned through retroactive credit)
 397-225 Intermediate Conversation and Composition, 3 credits

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

- 397-325 Advanced Conversation and Composition, 3 credits
 397-329 Representative French Authors, 3 credits

Minimum of 6 credits from:

- 397-329 Representative French Authors, 3 credits
 397-330 French Television for Conversation, 3 credits
 397-333 French Literary Themes, 3 credits
 397-335 French Literary Eras, 3 credits
 397-345 Advanced French Grammar and Translation, 3 credits
 397-346 French Phonetics and Public Speaking, 3 credits
 397-350 Major French Drama, 3 credits
 397-351 Major French Fiction, 3 credits
 397-354 France Today, 3 credits
 397-355 Le Monde Francophone, 3 credits
 397-366 Study Abroad: Paris, 3 credits
 397-483 Business French, 3 credits
 397-498 Independent Study (in advanced language, literature, or cultural studies; with adviser's consent)
 493-376 Cultural Conflict in French Canada, 3 credits

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

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 an area of special interest. The focus may come from the primary areas of business and economics, natural science, social science, or humanities and fine arts. Students may develop an interdisciplinary specialization of their own choice or do an in-depth study in a single discipline. The combination of elective courses, area of emphasis courses, and required courses adds up to a substantial concentration of knowledge, tailored to individual needs.

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

Requirements for the Major**Supporting Courses, 6 credits**

- Adult Learning Seminar, 2 credits
 Problem Solving, 4 credits

Communication Skills, 6 credits

- Writing/Information Skills, 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
 Applications 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, William Niedzwiedz (chairperson).

Geography is the systematic study of the location, variations and inter-relations 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, science and environmental change, urban and regional studies, public administration, environmental policy and planning, social change and development, or humanistic studies.

Students in geography can expect to become acquainted with current technology in the field through courses introducing them to the concepts and uses of geographic information systems. 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
 - 352-105 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 Politics 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):

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

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 participate in a month of travel and instruction in Germany, or 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 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 a 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

- 424-202 Intermediate German II, 4 credits (can be earned as part of 424-289, Intensive German, 16 credits; can also be earned through retroactive credit)
- 424-225 German Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits

Required:

- 424-325 Advanced Conversation and Composition, 3 credits

Minimum of 6 credits from:

- 424-356 Contemporary German Culture, 3 credits
- 424-483 Deutsche Kultur und Landeskunde, 3 credits
- 424-483 Semester Abroad in Germany, 3-15 credits
- 448-325 History of Modern Germany, 3 credits
- 493-361 June Abroad: German Culture, 3 credits

Minimum of 6 credits from:

- 424-329 Representative German Authors, 3 credits
- 424-333 German Literary Themes, 3 credits
- 424-335 German Literary Eras, 3 credits
- 424-350 Major German Drama, 3 credits
- 424-351 Major German Fiction, 3 credits
- 424-352 Major German Poetry, 3 credits

Minimum of 9 credits from courses listed above or:

- 351-323 Approaches to Literature, 3 credits
- 424-483 Advanced German Grammar, 3 credits
- 424-483 German Television for Oral Conversation, 3 credits
- 424-483 German Cinema, 3 credits
- 424-498 German Phonetics, 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

- 424-202 Intermediate German II, 4 credits (can be taken as part of 424-289, Intensive German, 16 credits; can also be earned through retroactive credit)
- 424-225 German Conversation and Composition, 3 credits

Upper-Level Courses, 12 credits

Required:

- 424-325 Advanced Conversation and Composition, 3 credits
- 424-329 Representative German Authors, 3 credits

Minimum of 6 credits from:

- 424-333 German Literary Themes, 3 credits
- 424-335 German Literary Eras, 3 credits
- 424-350 Major German Drama, 3 credits
- 424-351 Major German Fiction, 3 credits
- 424-352 Major German Poetry, 3 credits
- 424-356 Contemporary German Culture, 3 credits
- 493-361 June Abroad: German Culture, 3 credits

History

Disciplinary Major or Minor

Professors — David H. Galaty, Harvey J. Kaye, Craig A. Lockard, Joyce E. Salisbury.

Associate Professors — Paul P. Abrahams, Norbert H. Gaworek (chairperson), Peter J. Kellogg, Jerrold C. Rodesch.

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 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 and Asian history, and in the history of science and international relations. The Coffin Library's 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.

History majors choose a minor in an interdisciplinary program. 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 seeking teacher preparation in history should pursue advising early from the social studies education adviser. Those 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
- 448-203 History of Europe, 1300 to 1815, 3 credits
- 448-204 History of Europe, 1815 to Present, 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

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
- 493-226 American Indian Studies: Wisconsin Indians, 3 credits
- 493-250 European Economy and Society, 3 credits
- 493-251 Business and American Life, 3 credits
- 875-270 Third World: Development or Despair, 3 credits

Upper-Level Courses, 24 credits

Choose a minimum of one course from each category below. At least one course marked with an asterisk must be chosen 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
- 448-340 Topics in African-American History, 3 credits
- 448-375 Great Decisions: Issues and Options in International Affairs, 3 credits
- 448-401 Transformation of American Schools, 3 credits
- 448-402 Political and Social History of the Modern U.S. I, 3 credits
- 448-403 Political and Social History of the Modern U.S. II, 3 credits
- * 448-405 History of Technological Change, 3 credits

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:

- 493-341 Perspectives on Human Values: The Medieval World, 3 credits
- 493-374 Wisconsin Indian Ethnohistory, 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
- 875-320 Constitutional Law, 3 credits
- 875-333 Social Change in Selected Areas, 3 credits
- 875-361 Historical Perspectives on Social Change, 3 credits
- 951-368 Geopolitics of World Regions, 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, Warren V. Johnson, 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 aspects of the human organism. Core courses emphasize human structure and function, patterns of development and aging, 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 including veterinary medicine 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.

Student 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 core requirements for emphases other than general human biology vary somewhat.)

Category 1:

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 2:

600-260 Introductory Statistics, 4 credits

225-108 General Chemistry, 5 credits

OR

225-211

-212 Principles of Chemistry I, II, 10 credits

Category 3: (6-7 credits)

352-105 Introduction to Expository Writing, 3 credits

OR

352-225 Writing About the Arts and Humanities, 3 credits

OR

352-226 Writing About the Social Sciences, 3 credits

OR

352-227 Writing About the Sciences, 3 credits

Choose one of these:

Oral communication

(e.g., 246-133 Fundamentals of Public Address)

Literature

(e.g., 351-104 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 1:

204-202

-203 Principles of Biology I, II 8 credits

Category 2:

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/graduate school admission.)

600-260 Introductory Statistics, 4 credits

754-103

-104 Fundamentals of Physics I, II, 10 credits

Category 3:

352-105 Introduction to Expository Writing, 3 credits

OR

352-225 Writing About Arts and Humanities, 3 credits

OR

352-226 Writing About the Social Sciences, 3 credits
OR

352-227 Writing About the Sciences, 3 credits

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 1:

204-202 Principles of Biology I, 4 credits

478-204 Anatomy and Physiology, 5 credits

Category 2:

225-108 General Chemistry, 5 credits

OR

225-211

-212 Principles of Chemistry I, II, 10 credits

600-260 Introductory Statistics, 4 credits

Category 3:

352-105 Introduction to Expository Writing, 3 credits

OR

352-225 Writing About the Arts and Humanities, 3 credits

OR

352-226 Writing About the Social Sciences, 3 credits

OR

352-227 Writing About the Sciences, 3 credits

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

820-450 Health Psychology, 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 1:

204-202

-203 Principles of Biology I, II, 8 credits

Category 2:

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 3:

351-104 Introduction to Literature, 3 credits

352-105 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 each 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, Joanne Hoven Stohs.

Assistant Professors — Dennis N. Lorenz, Tracy L. Luchetta, Timothy J. Sewall.

Human development is concerned with the flow of life 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, liberal arts 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 mental health 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 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 socio-emotional 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.

Special Facilities

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.

Human Development Minor

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, 13 credits

255-205 Social Science Statistics, 4 credits

OR

600-260 Introductory Statistics, 4 credits

478-102 Introduction to Human Biology, 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, 28 credits

481-440 Human Development Seminar, 1 credit

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

481-350 Developmental Psychobiology, 3 credits

820-308 Physiological Psychology, 3 credits

Areas of Emphasis

Students choose 15 credits from 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 Role Development, 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 Role Development, 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 Childhood and Learning, 3 credits

481-497 Internship, 3 credits

(An internship in a family-oriented agency is encouraged.)

■ Gerontology Emphasis

298-301 Economic and Social Security, 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 Role Development, 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
- 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 select one course from the list of biological courses.

Humanistic Studies**Interdisciplinary Major or Minor**

Professors — Sidney Bremer, Elmer Havens, David Galaty, Walter Herrscher, Frederick Kersten, Estella Lauter, Werner Prange, Joyce Salisbury, E. Michael Thron.

Associate Professors — Paul Abrahams, Orville Clark, Kenneth Fleurant, Norbert Gaworek, Gary Greif, Peter Kellogg, Michael Murphy, Gilbert Null, Jerrold Rodesch (chairperson), Thomas Tasch.

Assistant Professors — R. McKenna Brown, Carol Cornelius, Jennifer Ham, E. Nicole Meyer, Cristina Ortiz, Denise Sweet.

Lecturers — Jo Chern, Dianne Marlett, Marcela Ruiz-Funes, Joan Thron, Linda Toonen, Carol Van Egeren.

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 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 language (must be at 200-level or above to meet requirement)

Upper-Level Courses, 24 credits**Perspectives on Human Value 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 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
- 493/736-483 Criticism and Theory of Values, 3 credits

■ Cultural Studies

- 493-354 France Today, 3 credits
- 493-356 Contemporary German Culture, 3 credits
- 493-358 Latin America Today, 3 credits
- 493-360 Spain Today, 3 credits
- 493-361 June Abroad: German Culture, 3 credits
- 493-363 January Abroad: Mexico, 2 credits
- 493-365 June Abroad: England and Its Heritage, 3 credits
- 493-366 June in Paris, 3 credits
- 493-371 American Indian Art and Artists, 3 credits
- 493-374 Wisconsin Indians Ethnohistory, 2-3 credits
- 493-376 Cultural Conflict in French Canada, 3 credits
- 493-483 Introduction to Mayan Culture, 1 credit

■ 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: Hinduism and Buddhism, 3 credits
- 493-364 Women and Religion, 3 credits
- 493-381 Women, Myth and Identity, 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) (chairperson).

Associate Professors — Clifford Abbott (linguistics), 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 internships 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, 21 credits

266-256 Introduction to Computing Science I, 4 credits
266-257 Introduction to Computing Science II, 4 credits
520-210 Information Problems, 3 credits
520-220 Controlling Bibliographic Information, 3 credits
520-230 Visual Information, 3 credits
600-242 Discrete Mathematics, 4 credits

Upper-Level Courses, 27 credits

266-351 Data Structures, Storage and Retrieval, 3 credits
266-352 Computer Graphics, 3 credits
266-357 Theory of Programming Language, 3 credits
520-308 Information Technologies, 3 credits
520-440 Information and Computing Science Practicum, 3 credits
OR
520-497 Internship, 3-12 credits

One of these:

246-322 Modern Linguistics, 3 credits
246-326 Modern Semantics, 3 credits

One of these:

216-382 Introductory Management, 3 credits
246-335 Organizational Communication, 3 credits

One of these:

246-445 Human Communication Theory, 3 credits
520-430 Information, Media and Society, 3 credits

One of these:

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.

Students have several options in developing a course of study. Students with majors in humanistic studies 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 regional studies, 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 Cultures of the Americas, 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 separate listings for English, French, German, Spanish)

Professors — Sidney H. Bremer, Martin Greenberg, Elmer Havens, Walter Herrscher, Estella Lauter, Werner Prange, E. Michael Thron.
Associate Professors — Kenneth Fleurant (chairperson), Michael Murphy.
Assistant Professors — R. McKenna Brown, Jennifer Ham, E. Nicole Meyer, Cristina Ortiz, Denise Sweet, Brian Sutton.
Instructor — Joan Thron.
Lecturers — Jo Chern, Dianne Marlett, Marcela Ruiz-Funes, Linda Toonen, Carol Van Egeren.

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 and linguistic 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. The many opportunities to study abroad include England, France, Germany, Spain, Guatemala, and Mexico.

A computerized writing center and a foreign language laboratory with interactive audio equipment, computers, and international television reception also strengthens language skills 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 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 a 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, 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, Robert B. Wenger.
Associate Professors — Forrest B. Baulieu, William C. Conley, Gregory Davis (chairperson), Bruce W. Mielke, Nikitas L. Petrakopoulos, William A. Shay.
Assistant Professors — Tian-You Hu, Theodor Korithoski.
Lecturers — Linda Curl, 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

The University of Wisconsin System placement examination in mathematics is used to advise entering freshmen about the level at which they should enter university courses.

In rare cases, a student who has been accelerated and has mastery of high school calculus may, with advice of faculty, enter 600-203. 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. Examples 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, 36 credit 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
- 600-305 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
- 600-425 Dynamical Systems, 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
- 600-467 Applied Regression Analysis, 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
- 600-467 Applied Regression Analysis, 3 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.)

Music

Disciplinary Major or Minor

Professors — Robert J. Bauer, Trinidad J. Chavez, Arthur L. Cohrs, Lovell G. Ives, Terence J. O'Grady.

Associate Professors — Margaret E. Charnon, Garry W. Owens (chairperson).

Assistant Professors — Jeffrey Aaron, Kevin Collins, Cheryl A. Grosso, Sarah Meredith.

The University of Wisconsin-Green Bay disciplinary program in music, fully accredited by the National Association of Schools of Music (NASM), offers a program leading to a Bachelor of Music with majors in:

- **music education** (secondary instrumental or vocal music, elementary music, general music)
- **performance** (preparation for a professional career in music performance)

Or a Bachelor of Arts with major emphases in:

- applied music
- jazz studies
- music history and literature
- music and business (a joint program in the two disciplines)

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 eartraining 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 a 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 elect the bachelor of music in music education choose education as their interdisciplinary minor since that program leads to preparation for a teaching license in the selected areas. Students may combine programs in 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 a disciplinary major. This program is for students who view music as an avocation, or who intend to use their musical skills within the community in a nonprofessional context.

The music program offers excellent facilities in the Studio Arts Building. Also, students benefit from the close proximity of the Edward W. Weidner Center for the Performing Arts, which features world-class performances in an acoustically-superb environment. In addition, many student concerts and recitals are held in the Weidner Center. The David A. Cofrin Library holds a fine collection of books, periodicals, and musical scores.

Three- to four-year sequences of applied instruction are available in piano, organ, guitar, voice, flute, oboe, clarinet, saxophone, bassoon, horn, trumpet, trombone, euphonium, tuba, percussion, violin, viola, cello, string bass, and electric bass. Group ensemble performance opportunities include Wind Ensemble, Symphonic Band, Concert Choir, University Chorus, Jazz Ensemble, Show/Jazz Choir, Vocal Jazz Ensemble, Jazz Combo, as well as smaller brass, woodwind, guitar, and percussion ensembles, musical theatre and opera workshop.

Bachelor of Music

Required for all emphases:

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, 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, 1 credit each, 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
- 672-4xx 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, 1 credit each, 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
- 672-
3/4xx Minor Ensembles, 1 credit each, 2 credits
(2 semesters required)
- 672-342 Jazz Combo, 1 credit
- 672-343 Jazz Ensemble, 1 credit
- 672-344 Woodwind Ensemble, 1 credit
- 672-345 Brass Ensemble, 1 credit
- 672-346 Percussion Ensemble, 1 credit
- 672-350 New Music Ensemble, 1 credit
- 672-363 Vocal Ensemble, 1 credit
- 672-364 University Singers Show Choir, 1 credit
- 672-365 Vocal Jazz Ensemble, 1 credit
- 672-483 Opera Workshop, 2 credits
- 672-483 Guitar Ensemble, 1 credit

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)

(Vocal performance majors are required to fulfill a foreign language requirement.)

- 670-303 Vocal Pedagogy, 3 credits (vocal performance majors only)

- 670-315 Choral Arranging, 2 credits

OR

- 670-316 Instrumental Arranging, 3 credits

- 670-318 Choral Literature, 2 credits (vocal performance majors only)

- 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)

(Music performance students must sign up for 2 semesters of Master Class Lab in conjunction with 300- or 400-level applied lessons.)

A minimum of 6 credits from:

- 670-241 Jazz Improvisation, 2 credits
- 670-242 Jazz and Pop Literature, 2 credits
- 670-303 Vocal Pedagogy, 3 credits (unless taken above)
- 670-315 Choral Arranging, 2 credits (if not counted above)
- 670-316 Instrumental Arranging, 3 credits (if not counted above)
- 670-318 Choral Literature, 2 credits (unless taken 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, 2 credits

- 670-417 Jazz Arranging, 2-3 credits

- 670-423 Seminar in Music Literature, 3 credits

(can be repeated once with different topic)

- 672-483 Opera Workshop, 2 credits

■ 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

- 670-483 Instrumental Foundations, 1 credit

- 672- Applied Lessons, including a half recital, 4 credits
(2 semesters at 2 credits each)

- 672-069 Elementary Guitar, 1 credit

■ 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)
- 672-069 Elementary Guitar, 1 credit

Voice Proficiency:

- 672-045
- 046 Elementary Voice I, II, 2 credits (or 2 credits of applied voice)

■ 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
- 670-348 Instrumental Conducting and Rehearsal Techniques, 3 credits
 - 670-346 Keyboard Accompanying I, 1 credit
 - 670-483 Instrumental Foundations, 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)

Bachelor of Arts

■ Emphasis in Applied Music

Lower-Level Courses, 30 credits

- 670-115, 116 Ear Training and Sight Singing I, II, 1, 1 credit
- 670-151, 152 Materials and Values in Music I, II, 3, 3 credits
- 670-251, 252 Literature and Styles in Music I, II, 4, 4 credits
- 672-1xx Applied Lessons, 2 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required)
- 672-2xx Applied Lessons, 2 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required)
- 672-2xx Major Performing Ensembles, 4 credits (4 semesters required)
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.
- 672-241 Symphonic Band, 1 credit
- 672-241 Wind Ensemble, 1 credit
- 672-261 Concert Choir, 1 credit
- 672-262 University Chorus, 1 credit
- 672-011
- 021 Keyboard Musicianship I, II, 1, 1 credit

Upper-Level Courses, 20 credits

- 670-351
- 352 Literature and Styles in Music III, IV 4, 4 credits
- 670-333 Basic Conducting, 2 credits
- 672-3xx Applied Lessons, 2 credits each, 4 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required (above Applied Lessons include a half recital))
- 672-4xx Major Performing Ensembles, 1 credit each, 4 credits

(4 semesters required)

The major ensemble chosen must be related to the area of applied lessons when possible.

- 672-441 Symphonic Band, 1 credit
- 672-441 Wind Ensemble, 1 credit
- 672-461 Concert Choir, 1 credit
- 672-462 University Chorus, 1 credit

672-

- 3/4xx Minor Performing Ensembles, 2 credits (2 semesters required)
- 672-343 Jazz Ensemble, 1 credit
- 672-344 Woodwind Ensemble, 1 credit
- 672-345 Brass Ensemble, 1 credit
- 672-346 Percussion Ensemble, 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, 2 credits
- 672-165
- 365 Vocal Jazz Ensemble, 1 credit
- 672-342 Jazz Combo, 1 credit
- 672-483 Guitar Ensemble, 1 credit

Music Electives, 4 credits

Choose from the following:

- 670-315
- 316 Choral or Instrumental Arranging, 2 or 3 credits
- 670-318 Choral Literature, 2 credits
- 670-341 Woodwind Techniques, 2 credits
- 670-342 Brass Techniques, 2 credits
- 670-343 String Techniques, 2 credits
- 670-345 Percussion Techniques, 2 credits
- 670-411 Composition, 2 credits
- 670-472 Seminar in Music Literature, 3 credits
- 670-483 Vocal Pedagogy, 2 credits

■ Emphasis in Jazz Studies

Lower-Level Courses, 36 credits

- 670-115, 116 Ear Training and Sight Singing I, II, 1, 1 credit
 - 670-151, 152 Materials and Values in Music I, II, 3, 3 credits
 - 670-251, 252 Literature and Styles in Music I, II, 4, 4 credits
 - 670-241 Jazz Improvisation, 2 credits
 - 670-242 Jazz and Pop Literature, 2 credits
 - 672-1xx Applied Lessons, 2 credits each, 4 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required)
 - 672-2xx Applied Lessons, 2 credits each, 4 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required)
 - 672-2xx Major Performing Ensembles, 1 credit each, 4 credits (4 semesters required)
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.
 - 672-241 Symphonic Band, 1 credit
 - 672-241 Wind Ensemble, 1 credit
 - 672-261 Concert Choir, 1 credit
 - 672-262 University Chorus, 1 credit
 - 672-143 Jazz Ensemble, 1 credit
- OR
- 672-165 Vocal Jazz Ensemble, 1 credit
 - 672-011
 - 021 Keyboard Musicianship I, II, 1, 1 credit

Upper-Level Courses, 20 credits

- 670-351 Literature and Styles in Music III, 4 credits
 670-411 Composition, 2 credits
 670-417 Jazz Arranging, 2 credits
 672-3xx Applied Lessons, 2 credits (check *Timetable* for current offerings for specific instruments) (2 semesters required)
 672-4xx Major Performing Ensembles, 4 credits (4 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
 672-343 Jazz Ensemble, 1 credit each, 4 credits (4 semesters required)

Music Electives**4 credits from the following:**

- 242-329 Cultural Cross-Communication: Jazz History, 3 credits
 242-329 Cultural Cross-Communication: Introduction to World Music, 3 credits
 672-342 Jazz Combo, 1 credit (may be repeated)
 672-365 Vocal Jazz Ensemble, 1 credit (may be repeated)

■ Emphasis in Music History/Literature**Lower-Level Courses, 30 credits**

- 670-115, 116 Ear Training and Sight Singing I, II, 1, 1, credit
 670-151, 152 Materials and Values in Music I, II, 3, 3 credits
 670-251, 252 Literature and Styles in Music I, II, 4, 4 credits
 672-1xx Applied Lessons, 2 credits each, 4 credits (2 semesters required) (check *Timetable* for current offerings for specific instrument)
 672-2xx Applied Lessons, 2 credits each, 4 credits (2 semesters required) (check *Timetable* for current offerings for specific instrument)
 672-2xx Major Performing Ensembles, 1 credit each, 4 credits (4 semesters required)
 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.
 672-241 Symphonic Band, 1 credit
 672-241 Wind Ensemble, 1 credit
 672-261 Concert Choir, 1 credit
 672-262 University Chorus, 1 credit
 672-011, 012 Keyboard Musicianship I, II, 1, 1 credit

Upper-Level Courses, 16 credits

- 670-351
 -352 Literature and Styles in Music III, IV, 4, 4 credits
 670-333 Basic Conducting, 2 credits
 670-472 Seminar in Music Literature, 3 credits
 672-4xx Major Performing Ensembles, 1 credit each, 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
 672-
 3/4xx Minor Performing Ensembles, 1 credit
 672-342 Jazz Combo, 1 credit
 672-343 Jazz Ensemble, 1 credit
 672-344 Woodwind Ensemble, 1 credit
 672-345 Brass Ensemble, 1 credit
 672-346 Percussion Ensemble, 1 credit
 672-350 New Music Ensemble, 1 credit
 672-363 Vocal Ensemble, 1 credit
 672-364 University Singers Show Choir, 1 credit

- 672-365 Vocal Jazz Ensemble, 1 credit
 672-483 Opera Workshop, 2 credits
 672-483 Guitar Ensemble, 1 credit

Music Electives, 8 credits**A minimum of 8 credits from:**

- 670-315
 -316 Choral or Instrumental Arranging, 2 or 3 credits
 670-411 Composition, 2 credits
 670-472 Seminar in Music Literature, 3 credits (may be repeated with different topic)
 242-329 Cultural Cross-Communication: Jazz History, 3 credits
 242-329 Cultural Cross-Communication: Introduction to World Music, 3 credits

Requirements for the Minor**Lower-Level Courses, 18-22 credits**

These are the same as for the majors, excluding:

- 670-251, 252 Literature and Styles in Music I, II, 8 credits
 672-2xx Applied Lessons, 2 credits (2 semesters at 2 credits each) (see *Timetable* for current offerings for specific instruments)
 672-031,032
 -041,042 Keyboard Musicianship III, IV (only 2 semesters required)

Upper-Level Courses, 6 credits**Required:**

- 670-333 Basic Conducting, 2 credits
 672-3xx
 -4xx Major/Minor Ensemble, 1 credit
 Major Ensembles
 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
 672-342 Jazz Combo, 1 credit
 672-343 Jazz Ensemble, 1 credit
 672-344 Woodwind Ensemble, 1 credit
 672-345 Brass Ensemble, 1 credit
 672-346 Percussion Ensemble, 1 credit
 672-350 New Music Ensemble, 1 credit
 672-363 Vocal Ensemble, 1 credit
 672-364 University Singers Show Choir, 1 credit
 672-365 Vocal Jazz Ensemble, 1 credit
 672-483 Guitar Ensemble, 1 credit
 672-483 Opera Workshop, 2 credits

One of the following:

- 242-329 Cross-Cultural Communication II: Introduction to World Music, 3 credits
 242-329 Cross-Cultural Communication II: Jazz History, 3 credits

Nursing

Bachelor of Science in Nursing for Registered Nurses

Professional Program in Nursing

Associate Professor — Lorraine Noll; Eileen Porter (chairperson)
 Assistant Professor — Sylvia Kubsch.
 Lecturer — Janie McCray.

The professional program in nursing is designed to provide a unique professional and interdisciplinary educational experience for qualified registered nurses who seek to earn the Bachelor of Science in Nursing. Through its on-campus program and an extension in Rhinelander-Woodruff, the program provides access to professional educational and opportunities for educational mobility for registered nurses through northeast and northern Wisconsin.

The program is built upon the foundations of general education and the associate degree or diploma in nursing. The program consists of lower- and upper-division courses supportive of nursing, the professional nursing curriculum, electives, and other courses required for graduation from UWGB.

The program stimulates development of a personal framework for professional nursing practice, which is grounded in nursing theory and nursing experience, enriched by interdisciplinary learning opportunities, and revealed through specific professional behaviors. The professional behaviors are developed through achievement of outcome indicators and course objectives, which are consistent with the program objectives. The main concepts of the program objectives are: synthesis of professional roles, nursing process, critical thinking, communication, therapeutic nursing intervention, ethical conduct, rationale for autonomous professional behavior, client diversity as a basis for care, change, and professional development.

Graduates of the professional program in nursing are prepared: (a) to diagnose and treat human responses to actual or potential health problems, (b) to promote holistic adaptation of individuals, families, and communities, (c) to function as advocates for clients, (d) to teach clients and other health care providers, (e) to manage care of groups, (f) to critically analyze and utilize nursing research to improve care, and (g) to enact leadership roles in the profession and within society. The program provides the foundation for the master's degree in nursing and for students' continued personal and professional development.

The professional program in nursing is approved by the Wisconsin State Board of Nursing and accredited by the National League for Nursing (NLN). The program is a member agency of the National League for Nursing Council of Baccalaureate and Higher Degree Programs and the American Association of Collegiate Schools of Nursing. Kappa Pi Chapter of Sigma Theta Tau, the international honor society of nursing, was established at UW-Green Bay in 1988.

Requirements for Admission to the BSN Major

- A. Graduation from an AD or diploma program accredited by a state board of nursing.
- B. Current RN license (in any state).
- C. Admission to UW-Green Bay as a degree-seeking student.
- D. A minimum GPA of 2.25 on a 4.00 scale, based on lower-level nursing courses and the supporting courses required prior to admission to the major.
- E. Submitting an application for admission to the nursing major and initiating an academic plan with the academic adviser and the nursing adviser.
- F. Earning 28 lower-level nursing credits through one of these three methods:
 1. Completion of all lower-level nursing courses during the fall semester of 1988 or thereafter at an NLN-accredited ADN program in a Wisconsin Technical College with which UWGB has an Articulation Agreement.
 2. Graduation from an NLN-accredited ADN program in a community college in a state other than Wisconsin.
 3. Successful completion of the NLN Mobility Profile II Test. This is required of RNs who: (a) completed one or more lower-level nursing courses prior to the fall semester of 1988 at an ADN program in a Wisconsin Technical College, (b) graduated from a diploma program, or (c) graduated from an ADN program that was not accredited by the National League for Nursing.
- G. Finalizing the academic plan with the nursing adviser.

A student must meet all seven criteria to be admitted to the major. Criteria A-D must be met before applying for admission to the major. Criterion E must be met before faculty can act on an application. A student can be admitted to the major contingent upon completion of Criteria F,3 and G. After all seven criteria have been met, admission is official. Admission to the major is not a guarantee that the student will be able to enroll in 689-325 (the first clinical course) during the ensuing semester. The number of students allowed to register for clinical courses is determined by availability of faculty, enrollment levels, and the need to maintain appropriate faculty-student ratios.

Complete information on admission requirements and procedures is published in the *UWGB Academic Advising Handbook*; this information is also available at the nursing program office. Students are required to meet the health requirements of the program prior to registration for clinical courses. Students are responsible for any costs involved in meeting the health requirements. Students are expected to be proficient in use of a word processor upon admission to the major.

Requirements for the Major

Supporting Courses (as indicated in UWGB Articulation Agreements, or at maximum, 42 credits)

Students must have earned college credit for all lower-level supporting courses. Requirements can be met by taking the course at UWGB; direct transfer to UWGB, CLEP or PEP tests, if applicable; credit for prior learning, if applicable; transfer of elective credit in the content area specific to the course; or transfer of elective credit per UWGB articulation agreements with Wisconsin Technical Colleges.

Courses completed prior to application for admission to the major:

- 204-302 Principles of Microbiology, 4 credits
- 225-108 General Chemistry, 5 credits
- 478-204 Anatomy and Physiology, 5 credits
- 481-210 Introduction to Human Development, 3 credits
- 820-102 Introduction to Psychology, 3 credits
- 900-202 Introduction to Sociology, 3 credits

Choose one (3 credits):

- 478-205 Biotechnology and Human Values, 3 credits
- 736-102 Problems in Ethics, 3 credits
- 736-208 Science and Human Values, 3 credits

Courses completed prior to or concurrent with 689-435:

Choose one (3-4 credits):

- 216-215 Business Statistics, 3 credits
- 255-205 Social Science Statistics, 4 credits
- 600-260 Introductory Statistics, 4 credits

Choose one (3 credits):

- 736-101 Introduction to Philosophy, 3 credits
- 736-111 Elementary Logic, 3 credits
- 736-212 Philosophy of Science, 3 credits

Choose one (3 credits):

- 352-105 Expository Writing, 3 credits
- 352-225 Writing about the Arts and Humanities, 3 credits
- 352-226 Writing about the Social Sciences, 3 credits
- 352-227 Writing about the Sciences, 3 credits

Courses completed prior to or concurrent with 689-441:

- 246-133 Fundamentals of Public Address, 3 credits
- 362-102 Introduction to Environmental Sciences, 3 credits

Course completed prior to or concurrent with 689-431:

Choose one (3 credits):

- 298-202 Macro Economic Analysis, 3 credits
- 778-100 Introduction to Political Science, 3 credits
- 778/
- 835-202 Introduction to Public Policy, 3 credits
- 778-218 Political Behavior, 3 credits
- 835-215 Introduction to Public Administration, 3 credits

Upper-Level Courses, 39 credits

- 689-311 Theoretical Foundations in Nursing, 3 credits
- 689-315 Health Assessment, 3 credits
- 689-325 Nursing Diagnostics and Therapeutics, 4 credits
- 689-415 Gerontological Nursing, 3 credits
- 689-431 Nursing Management, 4 credits
- 689-435 Introduction to Nursing Research, 3 credits
- 689-441 Community Health Nursing, 6 credits
- 689-451 Synthesis for Nursing Practice, 4 credits

Prerequisites for the nursing courses are as specified in the *UWGB Academic Advising Handbook* and timetables. Nursing courses and credit allocations are subject to change.

Non-nursing upper-division requirements are designed to support three foci of the nursing curriculum: communication, critical thinking, and therapeutic nursing intervention. Students are required to select one three-credit course from each of the following lists of upper-division courses. These requirements can be completed by taking the courses at UWGB or by direct transfer.

Communication (choose one, 3 credits):

- 216-382 Principles of Management, 3 credits
- 246-335 Organizational Communication, 3 credits
- 246-337 Small Group Communication, 3 credits
- 520-308 Information Technologies, 3 credits
- 520-430 Information, Media, and Society, 3 credits
- 820-415 Organizational Psychology, 3 credits
- 820-416 Psychology of Intergroup Relations, 3 credits
- 820-438 Group Dynamics, 3 credits
- 835-344 Leadership in Organizations, 3 credits
- 900-303 Race and Ethnic Relations, 3 credits

Therapeutic Nursing Intervention (choose one, 3 credits):

- 156-304 Family, Kin, and Community, 3 credits
- 156/
- 478-364 Human Variability, 3 credits
- 302-322 Educational Psychology, 3 credits
- 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
- 478-351 Kinesiology, 3 credits
- 478-413 Neurophysiology, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-332 Middle Childhood and Adolescence, 3 credits
- 481-336 Gender Development, 3 credits
- 481-342 Cross-Cultural Human Development, 3 credits
- 481-343 Adulthood and Aging, 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
- 694-300 Human Nutrition, 3 credits
- 875-340 Women, Work, and Family, 3 credits
- 900-308 Sociology of the Family, 3 credits

Critical Thinking (choose one, 3 credits):

- 298-301 Economic and Social Security, 3 credits
- 298-302 Intermediate Macro Economic Theory, 3 credits
- 298-406 Comparative Economic Systems and Institutions, 3 credits
- 736-301 Criticism of Values, 3 credits
- 736-304 American Philosophy, 3 credits
- 736-324 Contemporary Philosophy, 3 credits
- 736-326 Philosophy, Politics, and the Law, 3 credits
- 736-406 Philosophical Problems in the Sciences, 3 credits
- 778-301 Environmental Politics and Policy, 3 credits
- 778-305 Urban Politics and Policy, 3 credits
- 778-306 Regulatory Policy and Administration, 3 credits
- 835-420 Health Care Policy and Administration, 3 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 throughout 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 or nutritionist supervisors in hospitals, other health care agencies, and some businesses. 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.

In addition to the careers already mentioned, nutritional sciences majors can also prepare 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.

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)
- 266-155 Microcomputers and End-User Applications, 3 credits
- 298-202 Macro Economic Analysis, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 352-105 Expository Writing, 3 credits
- OR
- 352-225 Writing About the Arts and Humanities, 3 credits
- OR
- 352-226 Writing About the Social Sciences, 3 credits
- OR
- 352-227 Writing About the Sciences, 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, 40 credits

Required:

- 204-302 Principles of Microbiology, 4 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
- 694-312 Quantity Food Production and Service, 4 credits
- 694-350 Life Cycle Nutrition, 3 credits
- 694-402 Food Service Administration, 3 credits
- 694-421 Community Nutrition, 4 credits
- 694-485 Advanced Human Nutrition, 3 credits
- 694-488 Nutrition in Disease, 3 credits

Recommended:

- 694-302 Nutrition and Culture, 3 credits

■ *Human Nutrition Emphasis*

Supporting Courses, 41 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
 352-105 Expository Writing, 3 credits
 OR
 352-225 Writing About the Arts and Humanities, 3 credits
 OR
 352-226 Writing About the Social Sciences, 3 credits
 OR
 352-227 Writing About the Sciences, 3 credits
 600-260 Introductory Statistics, 4 credits
 694-212 Nature of Food, 4 credits
 820-102 Introduction to Psychology, 3 credits
 900-202 Introduction to Sociology, 3 credits

Upper-Level Courses, 36 credits

Required:

- 204-302 Principles of Microbiology, 4 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
 694-402 Food Service Administration, 3 credits
 694-421 Community Nutrition, 4 credits
 694-485 Advanced Human Nutrition, 3 credits

Recommended:

- 478-310 Human Genetics, 3 credits
 694-312 Quantity Food Production and Service, 4 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
 266-155 Microcomputers and End-User Applications, 3 credits

- 352-105 Expository Writing, 3 credits
 OR
 352-225 Writing About the Arts and Humanities, 3 credits
 OR
 352-226 Writing About the Social Sciences, 3 credits
 OR
 352-227 Writing About the Sciences, 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

Professor — Fredrick Kersten.

Associate Professors — Orville Clark, Gary Greif, Gilbert Null (chairperson).

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:

- 736-304 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
- 736-483 Criticism and Theory of Values, 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 of 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 Science, 3 credits

Physical Education

Including Coaching Certification

Acting chairperson — Dan Spielmann.

Lecturers, basic instruction program — Emily Bauer, Otis Chambers, Cecily Dawson, Mike Heideman, Mike Kline, Jim Merner, Janis Pum, Aldo Santaga.

Lecturers, certification program — Otis Chambers, Mike Heideman, Mike Kline, Terry Powers.

The physical education unit does not offer a major or minor. However, a student may count up to four credits of physical education courses numbered from 100 to 399 toward a bachelor's degree. In addition, any number of physical education course credits numbered 400 and above may be counted toward a degree. Students are advised to consult the *Timetable* for further regulations about physical education.

Enrollment in physical education activity presumes a student's health status is appropriate for the course selected. A physical examination and the filing of a health history form with the office of Student Health Services are recommended.

Coaching Certification

The coaching certification program consists of a minimum of 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 Basketball/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 — Daniel J. Alesch, Martin H. Greenberg, Michael E. Kraft.
Associate Professor — David M. Litig (chairperson).
Assistant Professors — Francis J. Carleton, Scott R. Furlong, Denise L. 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 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 and regional studies, environmental policy and planning, social change and development, and business administration.

Requirements for the Major

Required Supporting Courses, 6 credits

Choose two of the following:

- 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
- 835-215 Introduction to Public Administration, 3 credits

Students intending to pursue graduate studies are urged to take:

- 225-205 Social Science Statistics, 4 credits
- 255-301 Foundations for Social Research, 3 credits

Upper-Level Courses, 24 credits

Minimum of 3 credits from the following in American Government and Politics:

- 778-301 Environmental Politics and Policy, 3 credits
- 778-305 Urban Politics and Policy, 3 credits
- 778-306 Regulatory Policy and Administration, 3 credits
- 778-310 The American Presidency, 3 credits
- 778-314 Administrative Law, 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
- 835-344 Leadership in Organizations, 3 credits
- 835-378 Environmental Law, 3 credits
- 835-406 State and Local Government, 3 credits
- 951-351 Transportation and the City, 3 credits

Minimum of 3 credits from the following in Comparative Politics:

- 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 Politics of Conflict Areas, 3 credits (This course may count in one group only.)

Minimum of 3 credits from the following in Political Theory:

- 736-304 American Philosophy, 3 credits
- 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 the following in International Politics:

- 778-360 International Politics, 3 credits
- 778-368 Geopolitics of World Regions, 3 credits
- 778-370 Foreign and Defense Policies, 3 credits
- 778-378 Politics of Conflict Areas, 3 credits (This course may count in one group only.)

Requirements for the Minor

Required Supporting Courses, 6 credits

Choose two of the following:

- 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
- 835-215 Introduction to Public Administration, 3 credits

Upper-Level Courses, 12 credits

Choose four courses with the 778 prefix from the list shown under requirements for the major in political science.

Psychology

Disciplinary Major or Minor

Professors — Fergus Hughes, William Smith.
Associate Professors — Charles Matter (chairperson), Robert Mendelsohn, Ilene 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 and in the social science interdisciplinary programs.

Grade Point Average Requirement

Beginning with those who matriculated in fall 1992, students are being 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, 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

478-313 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

820-417 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

820-311 Psychology of Sports and Exercise, 3 credits

820-390 Environmental Psychology, 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

951-325 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 — Daniel J. Alesch, Michael E. Kraft, William R. Niedzwiedz, John R. Stoll.

Associate Professors — David M. Littig (chairperson), Robert A. Mendelsohn.

Assistant Professors — Scott R. Furlong, Denise L. Scheberle.

The public administration major is a broad-based, interdisciplinary, social science major. It is designed to prepare students for a variety of challenging careers in public and nonprofit organizations, as well as for further study in a variety of graduate programs. Students develop proficiency in public policy analysis, policy development and implementation, organizational management and leadership, budgeting, and governmental processes. Graduates hold positions as professional administrators, policy analysts, budget specialists, program managers, personnel counselors, health and human resource specialists. Many public administration majors pursue graduate studies in public administration, law, political science, social services, public policy, and public affairs.

All public administration majors engage in both theoretical and applied studies. Students are encouraged to gain these experiences through independent study, applied research projects, and the internship program administered by the department.

The major in public administration consists of three sets of requirements: (1) required supporting courses (19 credits); (2) upper-level core courses (9 credits); and (3) 15 credits in one of three areas of emphasis within the major. The areas of emphasis are:

- public and nonprofit management
- public policy
- health and human services

An interdisciplinary minor in public administration fits well with a major in political science, economics, communication processes, environmental policy and planning, urban and regional studies, social change and development, and others. It prepares students to work in an administrative capacity and as a policy analyst for a variety of organizations, as well as a strong background for graduate studies in public administration, law school, public policy, public affairs, and related fields.

Requirements for the Major

Recommended Supporting Courses

- 246-133 Fundamentals of Public Address, 3 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 352-105 Expository Writing, 3 credits
- 778-100 Introduction to Political Science, 3 credits

Required Supporting Courses: 19 credits

Introductory Courses:

- 298-202 Macro Economic Analysis, 3 credits

OR

- 298-203 Micro Economic Analysis, 3 credits

- 778-101 American Government and Politics, 3 credits

- 835-202 Introduction to Public Policy, 3 credits

- 835-215 Introduction to Public Administration, 3 credits

Tool Courses: 7 credits

- 255-205 Social Science Statistics, 4 credits

OR

- 600-260 Introductory Statistics, 4 credits

OR

- 216-215 Introduction to Business Statistics, 3 credits

- 255-301 Foundations for Social Research, 3 credits

Upper-Level Core: 9 credits

- 835-315 Public and Nonprofit Management, 3 credits
- 835-408 Public Policy Analysis, 3 credits
- 835-415 Public and Nonprofit Budgeting, 3 credits

Internship (optional):

- 835-497 Internship in Public and Environmental Affairs, 3-12 credits

Areas of Emphasis, 15 credits

■ Public and Nonprofit Management Emphasis

One of the following: 3 credits

- 216-362 Human Resource Management, 3 credits
- 820-415 Organizational Psychology, 3 credits
- 835-344 Leadership in Organizations, 3 credits

Four of the following: 12 credits

- 778-410 Intergovernmental Relations, 3 credits
- 835-314 Administrative Law, 3 credits
- 835-406 State and Local Government, 3 credits
- 835-409 Public Finance and Fiscal Policy, 3 credits
- 835-451 Decision Theory and Methods, 3 credits
- 835-452 Planning Theory and Methods, 3 credits
- 835-453 Cost-Benefit Analysis, 3 credits
- 835-461 Special Topics in Public and Environmental Affairs, 3 credits

Recommend one of the following:

- 107-316 Governmental and Institutional Accounting, 3 credits
- 216-429 Marketing Strategies for Non-Business Institutions, 3 credits
- 216-448 Financial Management for the Nonprofit Organization, 3 credits
- 298-301 Economic and Social Security, 3 credits

■ Public Policy Emphasis

One of the following:

- 778-316 American Legislative Process, 3 credits
- 778-410 Intergovernmental Relations, 3 credits
- 835-314 Administrative Law, 3 credits
- 835-406 State and Local Government, 3 credits

Two of the following:

- 835-301 Environmental Politics and Policy, 3 credits
- 835-306 Regulatory Policy and Administration, 3 credits
- 835-402 Environmental and Resource Economics, 3 credits
- 835-420 Health Care Policy and Administration, 3 credits
- 951-305 Urban Politics and Policy, 3 credits
- 951-351 Transportation and the City, 3 credits

Two of the following:

- 835-451 Decision Theory and Methods, 3 credits
- 835-452 Planning Theory and Methods, 3 credits
- 835-453 Cost-Benefit Analysis, 3 credits
- 835-461 Special Topics in Public and Environmental Affairs, 3 credits

■ Health and Human Service Emphasis

In addition to requirements for all public administration majors, the following lower-level courses are recommended for students with a Health and Human Services emphasis.

- 478-102 Introduction to Human Biology, 3 credits

- 478-217 Man, Nature, 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

Both of the following:

- 835-420 Health Care Policy and Administration, 3 credits
- 835-483 Human Service Organization, 3 credits

Three of the following:

- 216-362 Human Resource Management, 3 credits
- 820-415 Organizational Psychology, 3 credits
- 820-466 Clinical and Community Psychology, 3 credits
- 835-344 Leadership in Organizations, 3 credits
- 835-409 Public Finance and Fiscal Policy, 3 credits
- 835-452 Planning Theory and Methods, 3 credits
- 835-461 Special Topics in Public and Environmental Affairs, 3 credits

Recommend one of the following:

- 107-316 Governmental and Institutional Accounting, 3 credits
- 216-429 Marketing Strategies for Non-Business Institutions, 3 credits
- 216-448 Financial Management for the Nonprofit Organization, 3 credits
- 298-301 Economic and Social Security, 3 credits

Requirements for the Minor**Required Supporting Courses: 12 credits**

- 298-202 Macro Economic Analysis, 3 credits

OR

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

Upper-Level Requirements: 15 credits**Core courses:**

- 835-315 Public and Nonprofit Management, 3 credits
- 835-408 Public Policy Analysis, 3 credits

Three of the following:

- 778-410 Intergovernmental Relations, 3 credits
- 835-301 Environmental Politics and Policy, 3 credits
- 835-306 Regulatory Policy and Administration, 3 credits
- 835-314 Administrative Law, 3 credits
- 835-344 Leadership in Organizations, 3 credits
- 835-406 State and Local Government, 3 credits
- 835-415 Public and Nonprofit Budgeting, 3 credits
- 835-420 Health Care Policy and Administration, 3 credits
- 835-451 Decision Theory and Methods, 3 credits
- 835-452 Planning Theory and Methods, 3 credits

Social Change and Development

Interdisciplinary Major or Minor

Professors — Anthony Galt, Harvey J. Kaye, Craig A. Lockard, Carol Pollis, Lynn Walter.

Associate Professor — Larry Smith.

Assistant Professors — Melissa Barlow, 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. 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.
- **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 other fields such as high school social studies, 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 6-12 credits from 2, 3, 4 or 5:

Category 1: (6 credits)

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 (7 credits):

255-205 Social Science Statistics, 4 credits

OR

600-260 Introductory Statistics, 4 credits

AND

255-301 Foundations for Social Research, 3 credits

Category 3 (12 credits):

Foreign Language: Two years of a foreign language up through the 202 level. Students with some language skills may receive retroactive credits.

Category 4 (6 credits, 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 5 (6 credits):

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 may be required.

■ 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

875-325 Law in Society, 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

■ 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 Politics of World Regions, 3 credits

875-345 Women, Race and Culture, 3 credits

■ Law and Social Change Emphasis, 12 credits

Recommended Supporting Courses

736-102 Problems in Ethics, 3 credits

736-111 Elementary Logic, 3 credits

778-101 American Government and Politics, 3 credits

Upper-Level Courses, 12 credits

448-403 Political and Social History of Modern America, 3 credits

778-410 Intergovernmental Relations, 3 credits

835-314 Administrative Law, 3 credits

835-378 Environmental Law, 3 credits

875-320 Constitutional Law, 3 credits

875-325 Law in Society, 3 credits

900-404 Criminology, 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

246-102 Introduction to Mass Communication, 3 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

875-483 Gender and Communication, 3 credits

951-303 Urban Sociology, 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

875-345 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.

Assistant Professor — 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. It also provides preparation for graduate social work education.

Graduates of the UWGB social work program secure positions in programs serving populations in need including the elderly, children and their families, persons with developmental and other disabilities, the economically dependent, and substance dependent persons.

Social work majors may elect to enroll in a child welfare sequence. The sequence, 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 child welfare practice. Stipends and practicum placements in public and tribal child welfare agencies are available selectively to qualified students who are willing to make a commitment to seek and accept post-B.S.W. employment in public or tribal child welfare. For more information on the requirements contact the Social Work office.

The B.S.W. program is accredited by the Council on Social Work Education.

Program Entry Requirements

Students who wish to major in social work must make formal application for admission to the program. This applies to those transferring from other institutions as well as students continuing at UWGB. Application materials are available from the Social Work Program Office. To apply to the B.S.W. degree program, students 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 at least 2.5. They must also demonstrate an interest in the profession and 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
- 352-105 Expository Writing, 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
- 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, 3 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

Child Welfare Sequence, 12 credits

- 481-331 Infancy and Early Childhood, 3 credits
- 481-332 Middle Childhood and Adolescence, 3 credits
- 892-350 Child Welfare, 3 credits
- 892-450 Child Welfare, 3 credits

In addition for students pursuing the child welfare sequence, 892-402 and 403 involve practicum placement in an agency that serves children and families.

Sociology

Disciplinary Minor

Professors — Harvey J. Kaye, Carol A. Pollis.
Associate Professors — Ray Hutchison, Joanne Hoven Stohs.
Assistant Professor — Melissa Barlow.

Sociology is the systematic study of social organization and social life in society. It uses both scientific and humanistic approaches to understand social behavior and social systems. Topics studied range from the family, minority groups, deviant behavior, and crime, to gender, ethnicity, social class, collective behavior, and power.

Sociology students learn a variety of research methods and social theories used to study both large-scale and small-scale patterns of social relationships and processes by which these patterns change.

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 administration, human development, social change and development, and urban and regional studies.

Requirements for the Minor

Supporting Courses, 7 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

An additional 6 credits of upper-level sociology courses selected from the following:

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

Spanish

Disciplinary Major or Minor

Assistant Professors — McKenna Brown (adviser), Cristina Ortiz.
Lecturer — Marcela Ruiz-Funes.

The Spanish program provides students with communication skills in both written and spoken Spanish and gives them an understanding of and appreciation for the peoples, literatures, and cultures of Spain and Latin America. Stronger ties with the Spanish-speaking world and the growing number of Spanish-speakers in the United States have significantly increased the need for teachers and speakers of Spanish.

Although some students choose to study Spanish primarily for personal growth and intellectual enrichment, graduates in Spanish have found satisfying careers in teaching, international business, translating and interpreting, personnel work, public relations, business management, social work, government service, and other fields. The Spanish major is also excellent preparation for graduate study. Certainly, proficiency in a foreign language and understanding of other cultures are essential for peace and prosperity in a mutually interdependent world.

Learning a new language is a life-long endeavor, only part of which can be accomplished in the classroom. All students of Spanish are strongly encouraged to take advantage of the opportunities faculty provide to travel and study in Spain, Mexico, Guatemala, and South America. Additionally, many ways exist to interact with the Hispanic community of Green Bay. A language laboratory with interactive audio equipment, computers, and international television reception helps language learning and cultural awareness.

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. 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 preferences and 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 UWGB should enroll in Introduction to Spanish 101. Students with previous Spanish should select a course appropriate to their level by counting a year of high school work as equivalent to a semester of college work, or they should consult the Spanish adviser.

Retroactive or Advanced Placement Credit

Students who have taken Spanish in high school or who acquired a knowledge of Spanish elsewhere may earn up to 16 additional credits by completing a Spanish course beyond the 101 level. With a grade of "B" or better, Spanish credit will be given for all Spanish courses preceding the one in which the student has enrolled, to a maximum of 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

908-202 Intermediate Spanish II, 4 credits (can be earned through retroactive credit)

908-225 Intermediate Conversation and Composition, 3 credits

Upper-Level Courses, 24 credits**Minimum of 12 credits from:**

- 908-325 Advanced Conversation and Composition, 3 credits
- 908-329 Representative Spanish and Latin American Authors, 3 credits
- 908-438 Major Spanish and Latin American Writers, 3 credits
- 908-483 Advanced Spanish Grammar, 3 credits

Minimum of 3 credits from:

- 908-358 Latin America Today, 3 credits
- 908-359 The Cultures of the Americas, 3 credits

Minimum of 3 credits from:

- 908-360 Spain Today, 3 credits
- 908-483 The Cultures of Spain, 3 credits

Minimum of 6 credits from:

- 448-358 Aspects of Latin American History, 3 credits
- 875-333 Social Change in Latin America, 3 credits
- 908-333 Spanish and Latin American Literary Themes, 3 credits
- 908-335 Spanish and Latin American Literary Eras, 3 credits
- 908-351 Major Spanish and Latin American Fiction, 3 credits
- 908-358 Latin America Today, 3 credits
- 908-359 The Cultures of the Americas, 3 credits
- 908-360 Spain Today, 3 credits
- 908-363 January Abroad: Yucatan, 3 credits
- 908-372 Spanish Phonetics and Contrastive Linguistics, 3 credits
- 908-483 Spanish and Latin American Cinema, 3 credits
- 908-483 The History of the Spanish Language, 3 credits
- 908-483 The Cultures of Spain, 3 credits
- 908-485 Semester Abroad in Spain/Mexico/Guatemala, 3-15 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**

- 908-202 Intermediate Spanish II, 4 credits (can be earned by retroactive credits)
- 908-225 Intermediate Conversation and Composition, 3 credits

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

- 908-325 Advanced Spanish Conversation and Composition, 3 credits
- 908-329 Representative Spanish and Latin American Authors, 3 credits

Minimum of 3 credits from:

- 908-358 Latin America Today, 3 credits
- 908-359 The Cultures of the Americas, 3 credits
- 908-360 Spain Today, 3 credits
- 908-483 The Cultures of Spain, 3 credits

Minimum of 3 credits from:

- 908-333 Spanish and Latin American Literary Themes, 3 credits
- 908-335 Spanish and Latin American Literary Eras, 3 credits
- 908-351 Major Spanish and Latin American Fiction, 3 credits
- 908-358 Latin America Today, 3 credits
- 908-359 The Cultures of the Americas, 3 credits
- 908-360 Spain Today, 3 credits
- 908-363 January Abroad: Yucatan, 3 credits
- 908-372 Spanish Phonetics and Contrastive Linguistics, 3 credits
- 908-483 Spanish and Latin American Cinema, 3 credits
- 908-483 Advanced Spanish Grammar, 3 credits
- 908-483 History of the Spanish Language, 3 credits
- 908-483 Language Issues in Spain and Latin America, 3 credits
- 908-483 The Cultures of Spain, 3 credits

Theatre**Disciplinary Major or Minor**

Professor — Lou Erdmann.

Associate Professors — Jeffrey Entwistle, Eugenia Erdmann, Laura Riddle.

Assistant Professors — Susan Kline-Heim, Sarah Meredith.

Lecturers — Carol Hoehn, Michael Ingraham.

Other instructional staff — Kimberly King.

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, musical, 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 at UW-Green Bay believe that the best way to learn theatre is to create theatre. Students are encouraged to take advantage of the four mainstage productions offered each year and to become active in the student Alternate Theatre organization that annually creates several productions. The theatre program is continually involved with the Kennedy Center's American Theatre Festival which aims to identify and promote quality in university theatrical production.

Campus facilities in Theatre Hall include the 457-seat University Theatre, the smaller, flexible Experimental Theatre space, an acting studio, a dance studio, and scene and costume shops. The Weidner Center for the Performing Arts includes as additional theatre program spaces the 2,020-seat Cofrin Family Hall and Fort Howard Hall. In addition, Studio One at the Weidner Center is used for theatre, dance, and voice 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 role or backstage work.

Students pursuing the bachelor of science in theatre degree will choose one of two areas of emphasis:

- Performance emphasis (acting/directing)
- Design/Technical Theatre emphasis

An interdisciplinary program in music theatre is included among the emphases offered by communication and the arts.

Theatre majors must complete an interdisciplinary minor, and they typically select 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, or in design/technical theatre. Students may 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, 23 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, 6 credits required:

- 915-221 Theatre Production Techniques I: Stagecraft, 3 credits
- 915-222 Theatre Production Techniques II: Costume/Make-up, 3 credits

Dance core, 4 credits required:

- 915-128 Jazz Dance I, 1 credit
- 915-137 Ballet I, 1 credit
- 915-141 Theatre Dance I, 1 credit
- 915-145 Modern Dance I, 1 credit

Required:

- 915-134 Basic Stage Movement, 1 credit

More advanced dance courses may be selected with approval of a faculty adviser.

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/literature, 12 credits required:

- 915-309 Theatre History I, 3 credits
- 915-310 Theatre History II, 3 credits
- 915-311 Theatre History III, 3 credits

Select one from:

- 351-310 Major English Drama, 3 credits
- 351-350 Major Foreign Drama, 3 credits
- 351-431 Shakespeare, 3-4 credits

Other dramatic literature courses may be selected with the assistance of a faculty adviser.

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
- 915-424 Advanced Technical Practices, 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, 22 credits required

Design/technical theatre core, 15 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
- 915-235 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 Jazz Dance I, 1 credit
- 915-137 Ballet I, 1 credit
- 915-141 Theatre Dance I, 1 credit
- 915-145 Modern Dance I, 1 credit
- 915-340 Dance History, 2 credits

Upper-Level Courses, 33 credits required

- 915-351 Directing I, 3 credits
- 915-403 Seminar in Theatre Arts: Portfolio, 3 credits

Select two 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/literature, 12 credits:

- 915-309 Theatre History I, 3 credits
- 915-310 Theatre History II, 3 credits
- 915-311 Theatre History III, 3 credits

Select one from:

- 351-310 Major English Drama, 3 credits
- 351-350 Major Foreign Drama, 3 credits
- 351-431 Shakespeare, 3-4 credits

Other dramatic literature courses may be selected with the assistance of a faculty adviser.

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 other upper-level design courses not selected above as three credit electives.

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

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, 14 credits required

- 915-137 Ballet I, 1 credit
- 915-138 Ballet II, 2 credits
- 915-145 Modern I, 1 credit
- 915-248 Modern II, 2 credits
- 915-128 Jazz I, 1 credit
- 915-228 Jazz II, 2 credits
- 915-161 Tap I, 1 credit
- 915-261 Tap II, 1 credit
- 915-141 Theatre Dance I, 1 credit
- 915-142 Theatre Dance II, 1 credit
- 915-134 Basic Stage Movement, 1 credit

Upper-Level Courses, 13 credits required

- 915-328 Jazz III, 2 credits
- 915-334 Movement Theory Analysis, 1 credit
- 915-361 Tap III, 1 credit
- 915-340 Dance History, 3 credits
- 915-440 Choreography, 3 credits
- 915-335 Practicum (Dance), 3 credits
- 915-131 Beginning Acting, 3 credits (strongly suggested)

Urban and Regional Studies

Interdisciplinary Major or Minor

Professors — Martin H. Greenberg, Kumar Kangayappan, William Laatsch, Ismail Shariff, William Smith.

Associate Professors — Ronald Baba, Ray Hutchison (chairperson).
Assistant Professor — Ann Jennings.

Urban and regional studies provides an understanding of the social, economic, and political activities of individuals and groups within cities and regions of various sizes and locations, not only in the United States but throughout the world. Faculty in the program bring together urban and regional perspectives from a variety of disciplines, including architecture, demography, economics, ethnic studies, geography, political science, psychology, sociology, and women's studies. Graduates of urban and regional studies are expected to demonstrate effective written and oral communication skills; make use of other symbolic media for effective communication, including cartographic, statistical, mathematical, and foreign languages; read, interpret, analyze, and critically evaluate difficult written material and data; and work effectively on individual and group projects. Urban and regional studies offers the interdisciplinary background necessary for a variety of careers in our rapidly changing world; employers in many different fields increasingly prefer students with liberal arts majors for this reason.

The urban and regional studies major and minor offer the skills and knowledge base for a wide range of challenging and rewarding careers in both the private and public sector, including but not limited to architecture, community organization, economic development, marketing, real estate, social services, and urban and regional planning. This interdisciplinary major also provides excellent preparation for graduate study in master's and doctoral programs such as architecture, geography, political science, public policy, public administration, sociology, urban and regional planning, and related fields.

All urban and regional studies students enroll in a common set of core courses, supplemented by two groups of elective courses emphasizing (a) the cultural, social, and spatial aspects of urban and regional studies, and (b) the planning and policy aspects of urban and regional studies. Internships with local public and private sector organizations, independent study courses with individual instructors, and applied research projects are especially encouraged. Internships are normally semester-long positions in both public and private organizations which provide qualified students with practical experience to enrich their classroom studies. The department has maintained internship placements in public agencies including local and state planning offices and the Wisconsin Department of Natural Resources, and a range of private engineering, architecture, transportation and commercial interests. Internship experiences have proven to be an important enhancement to graduate school applications, and they also increase opportunities for employment after graduation.

Students may develop a major or minor emphasizing studies in a broad variety of areas within urban and regional studies: minority studies, community economic development, real estate, cartography, urban and regional planning, architecture and urban design. Those interested in architecture and urban design are encouraged to participate in the environmental design program. This interdisciplinary design program provides students with a unique opportunity to study the design process in the context of actual projects done for community clients. For the past six years the students in the program have completed a series of projects which have become critical elements in the urban development plans of the Oneida Nation.

Faculty advisers will design a course of study for each student that is tailored to individual academic interests and career goals. These programs of study will frequently include internships in the local community.

Requirements for the Major

Competencies

Recommended courses:

- 246-133 Fundamentals of Public Address, 3 credits
- 266-155 Microcomputers and End-User Applications, 3 credits
- 298-202 Macro Economic Analysis, 3 credits
- 352-105 Expository Writing, 3 credits
- 778-101 American Government and Politics, 3 credits
- 900-202 Introduction to Sociology, 3 credits

Supporting Courses, 13 credits

- 255-205 Social Science Statistics, 4 credits
- 255-301 Foundations for Social Research, 3 credits

OR

- 416-250 Displays of Geographic Information, 3 credits
- 951-102 World Regions and Concepts: A Geographic Analysis, 3 credits
- 951-200 Introduction to Urban Studies, 3 credits

Upper-Level Courses, 27 credits

Urban and Regional Studies core, 9 credits:

- 416-341 The City and Its Regional Context, 3 credits
- 951-303 Urban Sociology, 3 credits
- 951-305 Urban Politics and Policy, 3 credits

Required senior capstone course, 3 credits:

- 951-430 Seminar in Ethics and Public Affairs, 3 credits

Electives, 15 credits:

Select at least two courses from the following group of courses emphasizing cultural, social, and spatial perspectives in urban and regional studies:

- 416-342 Settlement Geography, 3 credits
- 951-313 The City Through Time and Space, 3 credits
- 951-323 Asian Americans, 3 credits
- 951-324 Hispanic Americans, 3 credits
- 951-372 Analysis of the Great Lakes Region of North America, 3 credits
- 951-377 Analysis of Northern Lands, 3 credits
- 951-392 Analysis of South Asia, 3 credits

Select at least two courses from the following group of courses emphasizing planning and policy perspectives in urban and regional studies:

- 778-410 Intergovernmental Relations, 3 credits
- 835-406 State and Local Government, 3 credits
- 951-309 Urban and Regional Economic Theory, 3 credits
- 951-325 Behavior in Designed Environments, 3 credits
- 951-340 Economics of Land Use, 3 credits
- 951-342 Community Economic Development, 3 credits
- 951-351 Transportation and the City, 3 credits
- 951-412 Urban Planning, 3 credits

An optional three-credit internship or laboratory course may be substituted for one course in the above lists:

- 951-461 Laboratory in Urban and Regional Studies, 3 credits
- 951-497 Internship in Urban and Regional Studies, 3 credits

Requirements for the Minor

Supporting Courses, 6 credits

- 255-205 Social Science Statistics, 4 credits

OR

- 416-250 Displays of Geographic Information, 3 credits
- 951-102 World Regions and Concepts: A Geographic Analysis, 3 credits

OR

- 951-200 Introduction to Urban Studies, 3 credits

Upper-Level Courses, 12 credits

Select two core courses:

- 416-341 The City and Its Regional Context, 3 credits
- 951-303 Urban Sociology, 3 credits
- 951-305 Urban Politics and Policy, 3 credits

Select two courses from the following:

- 416-342 Settlement Geography, 3 credits
- 951-309 Urban and Regional Economic Theory, 3 credits
- 951-313 The City Through Time and Space, 3 credits
- 951-323 Asian Americans, 3 credits
- 951-324 Hispanic Americans, 3 credits
- 951-325 Behavior in Designed Environments, 3 credits
- 951-340 Economics of Land Use, 3 credits
- 951-342 Community Economic Development, 3 credits
- 951-351 Transportation and the City, 3 credits
- 951-372 Analysis of the Great Lakes Region of North America, 3 credits
- 951-377 Analysis of Northern Lands, 3 credits
- 951-392 Analysis of South Asia, 3 credits
- 951-412 Urban Planning, 3 credits

Women's Studies

Interdisciplinary Minor

Professors — Sidney Bremer, Estella Lauter, Carol Pollis, Lynn Walter.
Associate Professors — Illene Noppe, Thea Sager, Joanne Hoven Stohs
(chairperson).

Assistant Professors — Francis Carleton, Ann Jennings, Tracy Luchetta,
Sarah Meredith, E. Nicole Meyer.

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 Role Development, 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:

- 242-395 Images of Women in Contemporary Arts, 3 credits
- 397-333 Literary Themes, 3 credits
- 820-483 The Psychology of Women, 3 credits
- 875-340 Women, Work and Family, 3 credits
- 875-348 Women and the Law, 3 credits
- 875-375 Women's Strategies for Change, 3 credits
- 875-483 Gender and Communication, 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
- 298-483 Economics of Discrimination, 3 credits
- 351-206 Women in Literature, 3 credits
- 478-206 Fertility, Reproduction and Family Planning, 3 credits
- 875-235 Perspectives on Human Sexuality, 3 credits

PREPROFESSIONAL PROGRAMS OF STUDY

Agriculture

Preprofessional Program

Adviser — Charles A. Ihke, associate professor.

UW-Green Bay 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 those listed below.

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

352-105 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

Advisers—Academic Advising Office.

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—completion of an undergraduate degree at UWGB—has some important advantages. First, an appropriately chosen undergraduate major provides a variety of career options in addition to architectural design. Architecture is a complex professional field. Many kinds of expertise are required to design and construct a building, and buildings serve a multitude of special purposes. Moreover, architecture stands in a group of related professional practices which include interior design, urban design, and urban planning. An interdisciplinary undergraduate major provides students with an opportunity to investigate and integrate a broad range of intellectual experiences with the practice of architecture and make more informed decisions about career directions.

Second, an undergraduate degree which combines pre-architecture studies with a specialization in a field such as graphic design, computer science, urban planning, economics, or gerontology (a number of firms in the country specialize in the design of residential facilities for the elderly) and the like, enhances the student's graduate school application while providing a strong foundation for entry into the profession.

The environmental design program was developed specifically to provide pre-architectural studies. It includes coursework in design methods, architectural graphics, art history, and architectural and urban design. The core of the program is a four semester sequence of studio experiences in which student design teams produce design proposals for actual clients from the Northeast Wisconsin region. In the past several years, UWGB environmental design teams have worked with the Green Bay Planning Department, the De Pere Parks and Recreation Commission, the Oconto County Economic Development Authority, and many other agencies and programs. Since 1988, design teams have aided the Oneida Nation of Wisconsin in the development of a 25-year master plan and the design of a number of capital facilities including a business park, a 200-acre wetlands park, two residential subdivisions, energy efficient housing, a police station, and a health center-nursing home complex. Students interested in combining architecture with urban scale problems add the program to a major in urban and regional studies. Those with interests in graphic design or studio art may select a major in communication and the arts.

Most UW-Green Bay pre-architecture students have chosen to complete bachelor's degrees here and apply for entry into 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, Cincinnati, and others.

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 the 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

Major in Urban and Regional Studies

Supporting Courses, 13 credits

- 255-205 Social Science Statistics, 4 credits
- 255-301 Foundations of Social Research, 3 credits
- 951-200 Introduction to Urban Studies, 3 credits
- 951-102 World Regions and Concepts: A Geographic Analysis, 3 credits

Upper-Level Core Courses, 9 credits

- 416-341 The City and Its Regional Context, 3 credits
- 951-303 Urban Sociology, 3 credits
- 951-305 Urban Politics and Policy, 3 credits

Suggested electives, 12 credits

- 416-342 Settlement Geography, 3 credits
- 951-313 The City Through Time and Space, 3 credits
- 951-325 Behavior in Designed Environments, 3 credits
- 951-412 Urban and Regional Planning, 3 credits

Plus, the Environmental Design Studios listed as core courses, above.

Capstone Course:

- 951-430 Seminar in Ethics and Public Affairs, 3 credits

Major in Communication and the Arts

Supporting Courses, 16 credits

- 168-106 Design Methods, 3 credits
- 242-202 Concepts and Issues of Modern Art, 3 credits
- 242-231 Introduction to Graphic Communications, 4 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
- 352-105 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. 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.

Counselors. Students seeking entry to this field may choose from among many majors including psychology, social work, sociology, human development, and social change and development. A master's degree 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 minors in 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 psychology. At UW-Green Bay, these should be combined with interdisciplinary minors such as social change and development or human development. Some social work positions require the Master of Social Work.

Vocational and education counselors. Such counselors usually need at least a bachelor's degree and experience in a field such as teaching, a health occupation, or social work. Psychology majors combined with appropriate interdisciplinary minors would provide good preparation. Individuals in many educational settings need teaching 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 coupled with interdisciplinary minors. UW-Stout has a master's degree program in vocational rehabilitation.

Dentistry

Preprofessional Program

Advisers — Joseph Mannino, Richard J. Stevens, associate professors.

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. Dental schools set their own requirements. It is important that students seek information from chosen schools early so they can plan appropriately.

UW-Green Bay provides preparation for dental schools, including specific required courses. The logical major for predentistry and human life sciences is human biology, although students interested in nutrition, psychology, field biology, chemistry, or physics might choose 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 them. Pre dental students are advised to select majors that offers career alternatives should they fail to gain admission to dental school.

UW-Green Bay's program has demonstrated its effectiveness. Most of its students whose grade point averages were 3.0 or higher and who achieved good dental entrance exam scores have been accepted into dental schools. Marquette University has the only school of dentistry in Wisconsin. The minimum courses below are required for admission into that program. Students interested in out-of-state programs should get those schools' requirements and plan their programs with the pre dentistry 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:

- 352-105 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 Human Physiology, 4 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 Lantz, associate professor; Nancy Sell, professor.

In addition to its own joint engineering program with UW-Milwaukee, offering degrees in civil, electrical, industrial, materials, and mechanical engineering (see page 39 of this catalog), 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
- 351-104 Introduction to Literature, 3 credits
- 352-105 Expository Writing, 3 credits
- 352-304 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
- 835-202 Introduction to Public Policy, 3 credits
- 835-215 Introduction to Public Administration, 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

Creative power in thinking:

- 736-111 Elementary Logic, 3 credits
- 835-201 Problem Analysis and Decision Making, 3 credits
- 835-408 Public Policy Analysis, 3 credits
- 835-451 Decision Theory and Methods, 3 credits
- 875-360 Models and Social Change, 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
- 835-314 Administrative Law, 3 credits
- 835-378 Environmental Law, 3 credits
- 875-303 Criminal Justice Process, 3 credits
- 875-325 Law in Society, 3 credits
- 875-330 Law and the Judicial Process, 3 credits
- 900-404 Criminology, 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 program accordingly.

The following list of courses represents preprofessional requirements usually required for the medical technology programs in Wisconsin. 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
- 204-302 Principles of Microbiology, 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
- 266-155 Microcomputers and End-User Applications, 3 credits
- 352-100 College Writing, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 600-104 Elementary Functions: Algebra and Trigonometry, 4 credits
- 600-260 Introductory Statistics, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits

Also:

General education courses in social sciences and humanities.

Medicine

Preprofessional Program

Advisers — Richard Stevens, associate professor; Dorothea Sager, associate professor; Joseph Mannino, associate professor.

Almost all medical schools require a bachelor's degree for entrance and specify subjects that a candidate must have completed. Applicants must demonstrate exceptional ability, high aptitude in science, outstanding achievement, and 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. Virtually all UWGB graduates with grade point averages of 3.5 or better and high scores on the MCAT have been accepted into medical schools. Also, the multidisciplinary nature of UWGB majors prepares students for professional activities in addition to medicine and more than one graduate education opportunity.

Wisconsin has two medical schools — the Medical College of Wisconsin in Milwaukee and the University of Wisconsin Medical Center, Madison. Students should get requirements from any medical college they hope to attend so they can plan their undergraduate studies accordingly. The following list of required UWGB courses is based on requirements for medical colleges. In addition, students complete requirements of their UW-Green Bay major and all-university requirements.

Preprofessional Courses

Chemistry and physics:

- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-302
- 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

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 Human Physiology, 4 credits
- 478-431 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 schools recommend or require differential and integral calculus)

English:

- 352-105 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

- 107-300 Introductory Accounting, 4 credits
- 204-202 Principles of Biology I, 4 credits
- 204-302 Principles of Microbiology, 4 credits
- 216-202 Business and Its Environment, 3 credits
- 216-206 Law and the Individual, 3 credits
- 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
- 352-100 College Writing, 3 credits

OR

- 352-105 Expository Writing, 3 credits
- 448-100 History of the Modern World, 3 credits
- 478-204 Anatomy and Physiology, 5 credits
- 778-100 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 — Academic Advising Office.

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.

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

352-100 College Writing, 3 credits

OR

- 352-105 Expository Writing, 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
- 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
- 352-100 College Writing, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-343 Adulthood and Aging, 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, 3 credits

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
- 352-105 Expository Writing, 3 credits
- 600-104 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
- 352-105 Expository Writing, 3 credits
- 600-202 Calculus and Analytic Geometry I, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits
- 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. Information on physical therapy programs in the United States can be obtained by writing to: The American Physical Therapy Association, 1111 North Fairfax St., Alexandria, VA 22314.

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 or other comparable programs.

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
- 352-100 College Writing, 3 credits
- OR
- 352-105 Expository Writing, 3 credits
- 481-331 Infancy and Early Childhood, 3 credits
- 481-343 Adulthood and Aging, 3 credits
- 481-435 Abnormal Behavior, 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
- 352-100 College Writing, 3 credits
- OR
- 352-105 Expository Writing, 3 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 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. Minors might include history, philosophy, literature, foreign language, sociology, women's studies, social change and development, and others. Pretheology students should learn requirements of the theological schools to which they are likely to apply, assess their own interests, and plan their programs with the pretheology adviser. The following list of UW-Green Bay courses are appropriate preprofessional preparation for theology.

Preprofessional Courses

- 156-320 Myth, Ritual and Religion, 3 credits
- 246-133 Fundamentals of Public Address, 3 credits
- 352-105 Expository Writing, 3 credits
- 448-100 History of the Modern World, 3 credits
- 448-201 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
- 493-271 American Indian Literature, 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
- 493-410 The Christian Heritage: Birth of Christ to 1600, 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:

- 351-214
 - 215 Introduction to English Literature I, II, 3, 3 credits
- 351-216
 - 217 Introduction to American Literature I, II, 3, 3 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

Adviser — Dorothea Sager, associate professor.

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 experience in working with animals as well as evidence of academic ability in preprofessional courses.

Wisconsin has a College of Veterinary Medicine at UW-Madison. Increasingly, although not required for admission, having a bachelor's degree is encouraged. To qualify for admission, students must complete 60 credits of college course work including the 38 credits in science and 6 credits in writing listed below, 6 elective credits in social sciences/humanities, and 15 additional credits selected to meet personal and academic goals and objectives. Scores from the Graduate Record Exam must also be submitted at the time of application. In addition to grade point average and GRE scores, evidence of motivation, promise of effective performance, communication skills, and breadth of experience, particularly that related to veterinary practice, are taken into consideration.

Requirements for preveterinary medicine can be met at UW-Green Bay. Most students major in human biology or in biology with a human biology or environmental science minor. Students should plan their programs with the pre-vet adviser to make certain that preveterinary requirements are met. The following UW-Green Bay courses meet preprofessional requirements at the UW-Madison College of Veterinary Medicine. Requirements for entry into other schools of veterinary medicine may vary.

Required Courses:

- 204-202 Principles of Biology I, 4 credits
- 204-303 Genetics, 3 credits
- 225-211 Principles of Chemistry I, 5 credits
- 225-212 Principles of Chemistry II, 5 credits
- 225-300 Bio-Organic Chemistry, 3 credits
- 225-301 Bio-Organic Chemistry Laboratory, 1 credit
- 225-330 Biochemistry, 3 credits
- 352-100 College Writing, 3 credits
- 352-105 Expository Writing, 3 credits
- 600-260 Introductory Statistics, 4 credits
- 754-103 Fundamentals of Physics I, 5 credits
- 754-104 Fundamentals of Physics II, 5 credits

Also:

Social sciences and humanities courses, 6 credits

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 *Timetable* and in this catalog.

Instructional unit numbers are:

107	Accounting
156	Anthropology
168	Art
204	Biology
216	Business Administration
225	Chemistry
242	Communication and the Arts
246	Communication Processes
255	Community Sciences
266	Computer Science
296	Earth Science
298	Economics
302	Education
325	Engineering
351	English: Literature and Language
352	English Composition: Literature and Language Environmental Policy and Planning (see 951)
362	Environmental Science
397	French: Literature and Language
416	Geography
424	German: Literature and Language
448	History
478	Human Biology
481	Human Development
493	Humanistic Studies
520	Information and Computing Science
600	Mathematics
670	Music
672	Applied Music
689	Nursing
694	Nutritional Sciences
736	Philosophy
742	Physical Education
754	Physics
778	Political Science
820	Psychology
	Public Administration (see 835)
835	Public and Environmental Affairs
867	Senior Seminars
875	Social Change and Development
892	Social Work
900	Sociology
908	Spanish: Literature and Language
915	Theatre
951	Urban and Regional Studies

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 courses' "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 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 in such courses can be found in the *Timetable* or through the Academic Advising Office.

281, 481 Student-Led Courses 1-4 credits

Well prepared, highly motivated students may develop and lead courses on their own. Topics must be subjects of contemporary concern not covered in regularly scheduled or catalogued courses. 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 average for all courses indicated on the academic plan for the major; 3.75 gpa in upper-level courses; senior standing; consent of instructor.

484 Senior Honors Project 3 credits

Each interdisciplinary or professional program offers qualified students the opportunity to undertake a project to qualify for graduation with summa cum laude honors. Such a project — normally a thesis, research, or other creative activity — is carried out in the latter part of the junior year or in the senior year with the consent of a faculty adviser. Specific details are available from advisers and chairpersons. Students should register for an honors project not later than the first semester of the senior year. A 3.75 or higher cumulative grade point average is required to qualify.

497 Internships 3-12 credits

Supervised practical experience in an organization or activity appropriate to a student's career and educational interests is offered through many academic units. Internships are supervised by faculty members and require periodic student/faculty meetings. Prerequisites are junior standing and consent of department chair.

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 4 cr.

Principles, concepts and terminology of financial accounting including coverage of the measurement and recording of business income and transactions, current and long term assets, current and long term liabilities, corporate equity, statement of cash flows, international accounting and financial statement analysis. Computer applications, ethical considerations, and analysis of company statements are integrated into the course. P: soph st and 266-155.

107-301 Intermediate Accounting 4 cr.

Financial accounting theory, concepts, principles and procedures relating to the measurement and reporting of cash, receivables, inventories, fixed assets, intangibles, current liabilities, bond payables, owner's equity; preparation and understanding of the balance sheet and income statement. P: 107-300.

107-302 Accounting for Administrators 3 cr.

The use and understanding of management accounting information for planning, control, performance evaluation, decision making; product costing using traditional and activity-based costing techniques; just-in-time, cost-profit-volume relationships, budgeting, variance analysis, decentralization, relevant costing, and ethics. P: 107-300.

107-305, 306 Business Law I, II 3, 4 cr.

See 216-305, 306.

107-312 Managerial Accounting 3 cr.

Expands and broadens the concepts and methods presented in 107-302. Job order, process, and joint product costing systems, ABC costing, standard costing, budgeting, JIT and cost estimation. Significant exposure to current issues, practices and periodicals. Oral presentation and writing skills emphasized. P: 107-302; Rec: 216-217 and 600-260.

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.

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.

107-316 Governmental and Institutional Accounting 3 cr.

Financial and managerial accounting concepts, theory and terminology related to state and local governmental entities and not for profit organizations including universities, health care organizations, voluntary health and welfare organizations and other not for profit entities. Analysis of actual municipal financial statements. Case studies, group work and/or class presentations emphasize application of theory to actual situations including ethical considerations. P: 107-300.

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.

107-410 Introduction to Income Tax Theory and Practice 3 cr.

Federal income taxation, especially tax rules and the determination of taxable income for individuals. Topics include: exclusions, deductions, passive activity losses, property transactions, nontaxable exchanges, capital gains and losses. P: 107-300; Rec: 107/216-305.

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.

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.

107-414 Advanced Managerial Accounting 3 cr.

Expands and broadens the concepts and methods presented in 107-302 and 107-312: cost concepts for decision making, cost volume profit analysis, relevant costing, capital budgeting, performance measurement, variable costing, transfer pricing, and decision making under uncertainty. Includes case analysis. P: 107-312; Rec: 600-260.

107-415 Advanced Income Tax Theory and Practice 3 cr.

Advanced topics in federal taxation, with emphasis on the federal taxation of corporations, partnerships, and exempt organizations. Estate and gift taxation and the income taxation of estates and trusts. P: 107-410.

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.

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.

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.

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.

156-342 Human Evolution 3 cr.

See 478-342.

156-364 Human Variability 3cr.

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.

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.

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.

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.

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.

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.

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: 168-101 and 106; Rec: 168-105 and 107.

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.

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 prewoven 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.

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 jewelry. Rec: 168-105, 106, 107.

168-270 Introduction to Printmaking 3 cr.

Exploration of various printmaking media such as relief, monoprint, calligraph, intaglio and lithography. P: 168-105; Rec: 168-106, 107.

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.

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.

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 metals. P: 168-101, 105, 106, 107, and 220.

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.

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.

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.

168-364 Intermediate Art Metals: Jewelry 3 cr.

Jewelry and art metals techniques: casting, fabricating and assembling mixed-media objects. P: 168-260.

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.

168-373 Intermediate Intaglio 3 cr.

Intaglio techniques: dry point, aquatint and various etching procedures. P: 168-105, 106, 107, and 270.

168-375 Screen Printing 3 cr.

Studio work in screen printing, including basic materials and equipment, blockout stencil making, paper stencil, pochoir, water soluble film, and photo-emulsion technique. P: 168-105, 106, and 107; 168-270 or 243.

168-377 Intermediate Lithography 3 cr.

Lithography techniques: plate lithography, drawing and process. P: 168-105, 106, 107, and 270.

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.

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.

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.

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. May be repeated to a maximum of 9 cr. P: 168-302.

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.

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.

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 or 332.

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. May be repeated to a maximum of 9 cr. P: 168-250 or 353 or 355.

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.

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: 1945-Present 3 cr.

Art movements from abstract expressionism to the present. P: 168-390, or 242-103 and 202.

168-493 Photography Portfolio 3 cr.

See 246-493.

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. May be repeated to a maximum of 6 cr. P: 168-395 and 396.

168-497 Internship in Art Management 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 four cr of 168-396 with minimum grade of B.

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.

204-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

204-298 Independent Study 1-4 cr.

See Courses with Variable Content.

204-301 Evolutionary Processes 3 cr.

The cytological, morphological, behavioral, and geographic factors involved in the origins of species and higher taxa. P: 204-203 or 478-110.

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, and 225-108 or 212.

204-303 Genetics 3 cr.

Mechanisms of heredity and variation, their cytological and molecular basis and their implications in biological technology. P: 204-202.

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.

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 and 225-108 or 211.

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, and 225-212 or 108.

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.

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, and 225-212.

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.

204-317 Structure of Seed Plants 3 cr.

Anatomy of seed plants, with special emphasis upon tissue differentiation and structure. P: 204-203.

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.

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.

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.

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.

204-345 Animal Behavior 3 cr.

Biology of animal behavior patterns; behavioral interactions of animals with their environment. P: 204-202 or 478-102.

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.

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.

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 or conc enroll.

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.

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.

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: grade of C or better in 204-303 or 225-330.

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.

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.
- 478-413 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.

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.

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 stamping, 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.

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.

216-281 Student-Led Courses 1-4 cr.

See Courses with Variable Content.

216-282 Personal Financial Planning 3 cr.

Exploration and functional analysis of consumers' financial needs and problems in our modern and complex society; learning to formulate financial goals, implement and monitor them through specific plans; financial functions such as budgeting, investing, financing, protecting and distributing wealth; philosophies and values of consumers; legal aspects of consumer rights.

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 Study 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.

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.

216-372 Introduction to International Business 3 cr.

Survey of interrelationships of operations of world business; nature, functions, and environments of international business; examination and analysis of constraints such as socio-economic, cross-cultural communication, political, financial, marketing, and management; study of state, federal, and international organizations assisting and promoting businesses in internationalizing their operations; problems and challenges facing the U.S. business. P: jr st and 298-202.

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.

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.

216-452 Advanced Microcomputer Business Applications 3 cr.

Use of computer technology in management 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.

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.

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.

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.

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.

216-425 Promotional Strategy 3 cr.

Analysis of the environments in which persuasive efforts take place; application of concepts from behavioral sciences; promotional tools to communicate to various publics about products, services, ideas and institutions, as viewed from a promotion system perspective. P: 216-322.

216-426 Marketing Management 3 cr.

Capstone course in marketing. Strategic interrelationships, development of analytical techniques and abilities, and decision making in marketing. P: sr sr and 216-322; 216-325 or 327 or 423 or 424 or 425 or 428.

216-427 Practicum in Marketing Research 3 cr.

Provides students with an opportunity to apply their knowledge of marketing research in hands-on fashion. Students will be doing comprehensive marketing research projects on behalf of area businesses. P: 216-424.

216-428 Consumer Behavior 3 cr.

Theories of buyer behavior, including ultimate and industrial customers, and their implications for marketing management. P: 216-322.

Finance**216-342 Cases in Personal Financial Planning 3 cr.**

Practical case study approach to address basic functions of personal financial planning; formulating financial goals and objectives; investment, insurance, tax, retirement, and estate planning; basic approach to accumulating, consuming, and distributing assets in different life cycles of individuals. P: 216-282.

216-343 Corporation Finance 3 cr.

Organization of basic financial management functions and principles for business; management of fixed and working capital; short-term and long-term financial planning through investment and financing decisions; domestic and international money and capital markets; ethical issues relating to business financial management. P: 48 earned and in-progress cr and min cum GPA of 2.5 or BUA, MGA, or grad classif and 107-300.

216-344 Real Estate Principles 3 cr.

Nature of real estate ownership, importance of land contracts, title transfer, and mortgage instruments; real estate valuation, finance and investment; impacts of taxation, insuring, marketing, and laws affecting real estate. (Not intended to prepare students for real estate licensing examination.) P: 216-343.

216-345 Principles of Risk Management 3 cr.

Nature of risks, principle techniques of risk management and the bases for making decisions with respect to the management of personal and business risks. P: 216-343.

216-347 Financial Markets and Institutions 3 cr.

Role of financial markets and institutions in forming and managing financial resources; examination and analysis of financial intermediation; organization and functions of the U.S. and international financial systems; structure and investment management strategies of specific financial institutions (such as banks, thrift, insurance and investment companies). P: 216-343.

216-348 Practicum in Computer-Assisted Financial Analysis 3 cr.

See 107-348.

216-442 Principles of Investment 3 cr.

Fundamental concepts, theories, and techniques relating to investing; securities markets, investment vehicles and environments, economic, industry and security analyses, portfolio construction and management; active and passive investment strategies; global investment perspectives and their impacts on investors; blend of facts and theories relating to traditional and modern portfolio approaches; ethics in investment decisions; applied computer-assisted investment decisions. P: 216-343; 216-215 or 600-260 or 255-205.

216-445 International Financial Management 3 cr.

Conceptual framework and applications of financial management decisions of multinational firms in a global setting; survey of the international financial environment; determinants of international portfolio and direct investment capital flows; assessment and management of impacts of foreign exchange and hedging strategies; impacts of international factors on capital budgeting and financial structure decisions; multinational money and capital markets; taxation of international business. P: 216-343; Rec: 216-442.

216-446 Advanced Corporation Finance 3 cr.

Short-term and long-term financial decisions under risk and uncertainty; financial analysis, planning and control; in-depth coverage of theories and applications of capital structure, cost of capital, dividend policies; working capital management; long-term financing decisions; valuation of mergers and acquisitions; international capital budgeting. P: 216-347 and 442.

216-447 Investment Analysis and Portfolio Management 3 cr.

In-depth coverage of theories and applications of portfolio construction, analysis, and management of investment portfolios under the context of efficient and inefficient market hypotheses; computer models for portfolio construction and management; fundamental techniques in selection, analysis and management of stocks and bonds; reducing investment risk inherent in asset selection and management through the use of financial derivatives; techniques for measuring investment performance; global investment decisions. P: 216-442.

216-449 Cases in Finance 3 cr.

Application of basic and advanced concepts and theories learned in finance (corporate finance, investments, and financial markets) through applied cases drawn from a "real" world context; areas of case analysis cover various financial decision topics, including capital budgeting, investing and financing decisions, working capital management, capital structure optimization, leveraged buy-out, merger and acquisition, and lease analysis. P: 216-442; Rec: 216-446.

216-450 Bank Administration 3 cr.

Commercial banking theories and practices from a financial management perspective; operations, administration, overall asset-liability management of commercial banks, including bank services, credit and loan pricing and analysis, investment portfolio problems, profitability, cost control, and capital budgeting and analysis; implications of deregulation or re-regulation on the financial industry. P: 216-347; Rec: 216-442.

Management**216-362 Human Resource Management 3 cr.**

Personnel management: human resource planning, recruitment, selection, training, motivation, fringe benefits, salary and wages, labor relations, and performance evaluation. P: 216-382.

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.

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.

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.

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.

216-389 Organizational Behavior 3 cr.

A micro-organizational behavior course examining motivation, leadership, job satisfaction, learning, group dynamics, and stress in the organizational setting. P: 216-382.

216-462 Seminar in Human Resource Management 3 cr.

Analysis of human resource problems and issues and their translation into corporate policies; urban, cultural and legal realities in human resource matters; decisions affecting the development and management of human resource policies. P: 216-362.

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.

216-482 Strategic Management 3 cr.

The course focuses on the concept of strategic planning, formulating organizational strategy, and initiating and managing the implementation process. Issues at the strategic level downward to divisional, functional, and project levels are explored in an integrative fashion. Strategic management, situation analysis, competitive analysis, strategies for single and multiple business units, and the seven planning tools of continuous improvement. P: 216-382.

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 eco-

nomics issues such as environmental policies and regulations. P: 298-202 and 203.

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 business upon the environment, and business relations with consumers, employees and minority groups. P: 216-382.

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.

216-489 Management and Organizational Theory 3 cr.

A macro organizational behavior course examining organizational environments, structure, power and politics, conflict, innovation, technology, and culture in the organizational setting. P: 216-382.

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.

225-108 General Chemistry 5 cr.

Survey of basic concepts of matter: its measurements, 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.

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: a grade of C or better in 225-211 and 600-104 or equivalent; full cr will not be awarded for both 225-212 and 108.

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: grade of C or better in 225-212 or 225-108.

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 255-300.

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: grade of C or better in 225-212; full cr will not be awarded for both 225-300 and 302 or 303. P for 303: grade of C or better in 225-302; full cr will not be awarded for both 225-303 and 300.

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 225-301 and 304. P for 305; grade of C or better in 225-304 and cr or conc enroll in 225-303.

225-311 Analytical Chemistry 4 cr.

Theory and practice of chemical analysis. Statistics; gravimetric analysis; acid-base chemistry; precipitation, complexometric and redox titrations; electrochemistry; spectrophotometry; atomic absorption; emission methods; separation methods (gas/liquid chromatography). P: 225-212.

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: a grade of C or better in 225-212, and 754-202, and 600-203.

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: a grade of C or better in 225-212, and 754-202, and 600-203.

225-322 Thermodynamics and Kinetics Laboratory 1 cr.

Laboratory course to accompany 225-320. P: cr or conc enroll in 225/754-320.

225-323 Structure of Matter Laboratory 1 cr.

Laboratory course to accompany 225-321. P: cr or conc enroll in 225/754-321.

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: grade of C or better in 225-303 and 204-202, or 225-300 and 301 and 204-202.

225-331 Biochemistry Laboratory 1 cr.

Laboratory course to accompany 225-330. P: cr or conc enroll in 225-330 or 225-694/328.

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: a grade of C or better in 225-303; Rec: 225-321.

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.

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.

225-411 Inorganic Chemistry Laboratory 1 cr.

Laboratory course to accompany 225-410. P: cr or conc enroll in 225-410.

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: a grade of C or better in 225-311 and cr or conc enroll in 225-321; Rec: 225-303.

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: a grade of C or better in 225-212 and 754-202; Rec: 225-321.

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.

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.

225-495 Research in Chemistry 3 cr.

A research project including literature search, experimental or theoretical work and a thesis-style report are required. P: 225-413.

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.

242-103 History of the Visual Arts: Renaissance to French Revolution 3 cr.

Survey of the visual arts: early Renaissance to the contemporary period.

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.

242-141 Introduction to the Performing Arts: Theatre and Music 3 cr.

The literature and the artists in theater and music from a historical perspective. Includes research prior to performances, performance attendance, artist interviews, and writing of critiques. Field trip required.

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.

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.

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.

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.

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.

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.

242-226 American Indian Studies: Wisconsin Indians 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.

242-231 Introduction to Graphic Communications 4 cr.

Basic principles of visual communication: application of design concepts, exploring aspects of computer design, typography, and the social impact of design. Includes a 1 credit lab.

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.

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.

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.

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.

242-329 Cross-Cultural Communication: Introduction to World Music 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.

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.

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

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.

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.

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.

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.

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.

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.

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 printer, 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.

242-435 Practicum in Integrated Publishing 1-4 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 951-436.

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: 242/951-436 and 951-210.

242-438 Environmental Design Studio III 3 cr.

See 951-438.

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: 242/951-437.

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.

242-474 Aesthetic Awareness, Traditional Art Style 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.

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.

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 351-206 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.

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. Satisfies UWGB writing skills requirement. P: 912-093 or enhanced ACT English score of 17 or higher.

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.

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.

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.

246-200 Communication Processes: An Introduction 3 cr.

Overview of a variety of communication processes; what they share, how they differ, their uses for communication, for art, and for individual growth, their effect on the social fabric; includes practical experience as well as a theoretical framework. Rec: one previous communications course.

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.

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: 352-105.

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.

246-253 Practicum in Print Journalism 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.

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 352-105.

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.

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.

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.

246-308 Information Technologies 3 cr.

A survey of information technologies, their operation and limitations, and how the major electronic technologies are changing and affecting both the workplace and the household. P: 246-200 or 520-210.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

246-343 Photography II 3 cr.

Black and white photography and darkroom printing techniques. Camera required. P: 246/168-243.

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.

246-345 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.

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.

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.

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 352-105.

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.

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. May be repeated to a maximum of 9 cr. P: 246/168-344.

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.

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.

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.

246-493 Photography Portfolio 3 cr.

Preparation of a major portfolio, documentation of work samples, resumes, and supporting statements. Portfolio practices in various arenas of photography. P: sr standing. 168/246-443.

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 or transfer course 600-004; not open to students who have cr for 600-260 or 216-215.

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 or 216-215.

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.

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.

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.

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.

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: 266-257.

266-272 Object-Oriented Programming in C++ 2 cr.

Introduces C++ language; students will design programs using the object-oriented paradigm. P: 266-257.

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.

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.

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.

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.

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.

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.

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.

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.

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.

266-455 Microprocessors and Digital Electronics 3 cr.

Digital electronics, microcomputer interfacing and microcomputer programming. P: background or prior course experience in electronics.

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.

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.

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.

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 users of the earth's rock and mineral resources. Students will not receive credit for both 296-202 and 296-102. Field trip required.

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.

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.

296-222 The Ocean of Air: Weather and Climate 3 cr.

See 416-222.

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.

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.

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.

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
- 835-356 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.

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.

298-206 Macro Economics Laboratory 1 cr.

Laboratory course to accompany 298-202. P: conc enroll in 298-202.

298-207 Micro Economics Laboratory 1 cr.

Laboratory course to accompany 298-203. P: conc enroll in 298-203.

298-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

298-298 Independent Study 1-4 cr.

See *Course 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.

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.

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.

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.

298-307 History of Economic Thought 3 cr.

Historical development of contemporary economic thought from the mercantilist period to the present emphasizing contributions of major schools of economic thought. P: jr st.

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.

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.

298-402 Environmental and Resource Economics 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.

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.

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.

298-406 Comparative Economic Systems and Institutions 3 cr.

Contemporary functioning of different economic systems and institutions; contrasts market-directed economics and centrally planned economies. P: jr st and 298-202.

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.

298-409 Public Finance and Fiscal Policy 3 cr.

Effects of government spending and taxation on resource allocation, incomes, prices and employment. Includes consideration of the uses and effects of fiscal policy. P: 298-203.

298-453 Cost-Benefit Analysis 3 cr.

An intensive analysis of the procedures involved and the conceptual basis of project evaluation from both a public and private sector viewpoint. Hands-on experience will be gained through worksheets and student projects. P: 298-203 and 600-104 (or equivalent).

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.

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 process, not limited to formal schooling; decision-making within institutions concerning goals, methods, financing, time-structuring and value issues; cross-cultural comparisons between American and other educational systems.

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.

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.

302-250 Field Experience in Education 2 cr.

Direct field experience working with children in educational settings; bi-weekly 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.

302-280 Instructional Technologies: Evaluation, Production and Application, 3 cr.

Computer and audio-visual materials designed, developed, and promoted for use in the classroom. Students examine and use resources, explore professional literature, and evaluate processes and products. P: admission to education program; Rec: 302-300.

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.

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.

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.

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.

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.

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.

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.

302-309 Teaching Language Arts in 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.

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 communication arts classroom. P: admission to teacher education and 302-300.

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.

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.

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.

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.

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; 302-300 or 301; 242-160 or equivalent; Rec: one additional linguistics course at the 300 level.

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.

302-317 Teaching Music in the Middle and Secondary Schools 3 cr. Philosophical and curricular issues in secondary school music; review of secondary school materials and methodologies; developing rehearsal objectives for a performance-oriented music curriculum. P: admission to teacher education; Rec: 302-300.

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.

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.

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: 820-102 or 481-210 and soph st; Rec: 302-300 or course in education.

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.

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.

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.

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 School Settings 1 cr. Thirty-clock hours of direct experience with school children/youth in school 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.

302-352 Social and Family Influences on Early Development and Learning 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.

302-400 Perspectives on Education, Schools and Society in the U.S. 3 cr. The nature of schools; their role in society; schools as socializing institutions; role and responsibilities of educators, teachers and the law; the professional context of teaching; school reform; and other 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.

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.

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.

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.

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.

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.

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. Workshop is designed to provide information on selected current economic topics and concepts; enable educators to examine new print and non-print

instructional materials and curriculum guides; and develop learning activities appropriate to their instructional responsibilities. Different topics are selected each year for focus. Topic will be identified by subtitle with each offering. May be repeated. P: completion of at least one professional education methods course and/or teaching experience and at least one social science course. For graduate credit, graduate standing is required.

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.

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.

302-423 Communicating and Thinking Across the Curriculum 3 cr.
Contemporary practices for teaching communication and thinking skills will be addressed through theory, research and simulations. One-on-one small group activities, continuing participation and student interaction will be stressed. This is a writing emphasis (WE) course. P: admission to education program.

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.

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.

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.

302-451 Field Experiments 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.

302-452 Principles of Middle Level Education 3 cr.
This course provides students with an introductory understanding of the philosophy and organization of middle level education. Emphasis is directed toward programmatic considerations. P: for undergraduate, admission to teacher education, 302-300, 302-322; for graduate, graduate standing and experience in education.

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.

302-481 Student-Led Courses 1-4 cr.
See Courses with Varied Content.

302-483X Selected Topics 1-4 cr.
See Courses with Varied Content.

302-498 Independent Study 1-4 cr.
See Courses with Varied 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 application using microcomputers. P: 600-101 or transfer course 600-004 or 2 yrs hs algebra and enhanced ACT math score of 25 or higher.

325-201 Engineering Materials 4 cr.
Basic behavior and processing of engineering materials, including metals and alloys, ceramics, and plastics. P: 225-212.

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; 266-155 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.

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.

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.

See courses in physics, chemistry, mathematics and related areas for complete listings for engineering.

Literature and Language

351 English-American

351-104 Introduction to Literature 3 cr.
The distinctive characteristics of poetry, plays, short stories and the novel, intended to help students understand, appreciate and enjoy literature ranging from the classic to the contemporary.

351-107 The Short Story 3 cr.
The short story as a literary form. Stories selected may be arranged according to period, theme, nationality or author.

351-206 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.

351-207 Philosophy and Literature 3 cr.
See 736-207.

351-212 Introduction to Creative Writing: Fiction 3 cr.

A first course in the writing, appreciation, understanding and technique of fiction.

351-213 Introduction to Creative Writing: Poetry 3 cr.

A first course in the writing, appreciation, understanding and technique of poetry.

351-214, 215 Introduction to English Literature I, II 3, 3 cr.

Chronological survey of English literature: 351-214 from Anglo-Saxon times to the end of the 18th century, including such writers as Chaucer, Shakespeare, Donne, Milton, Pope, and Swift; 351-215 from the 19th century to the present, including such writers as Wordsworth, Shelley, Keats, Byron, Tennyson, Shaw, Conrad, Eliot and Thomas.

351-216, 217 Introduction to American Literature I, II 3, 3 cr.

Chronological survey of American literature: 351-216 from Bradford to Melville, including such writers as Mather, Bradstreet, Paine, Irving, Cooper, Poe, Emerson and Thoreau; 351-217 from Whitman to the present, including such writers as Longfellow, Dickinson, Twain, James, Crane, Eliot, Pound, Fitzgerald, Hemingway, Faulkner and Cummings.

351-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

351-298 Independent Study 1-4 cr.

See *Courses with Variable Content*.

351-301 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: 351-212 or 213 or 246-203.

351-302 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: 351-212 or cons inst; Rec: 6 cr lower-level literature.

351-303 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: 351-213 or cons inst; Rec: 6 cr lower-level literature.

351-310 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: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 212, 213, 214, 215, 216, 217, 915-309, 310, 351, 352, 409.

351-314 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: 351-214 or 215 or cons inst; plus 3 additional lower level cr in literature or creative writing.

351-315 The English Novel: 1700-1860 3 cr.

The development of the English novel from its beginnings to the mid-Victorian period; includes works by such authors as Defoe, Sterne, Fielding, Smolett, Austen, Scott, the Brontes, Thackeray, Dickens and Eliot. P: 351-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

351-316 The English Novel: 1850 to the Present 3 cr.

The development of the English novel from mid-Victorian to modern times; includes works by such authors as Dickens, Eliot, Trollope, Hardy, Wilde, Conrad, Joyce, Woolf, Lawrence, Bowen and Cary. P: 351-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

351-323 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: jr st and 325-105 or 225 and one of the following: 351-104, 107, 206, 215, 216, 217.

351-330 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: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 212, 213, 214, 215, 216, 217, 915-309, 310, 351, 352, 409.

351-331 Major American Prose Fiction 3 cr.

Study of American prose fiction including examples of novels, short stories and satires; includes works by such authors as Melville, Twain, Fitzgerald, Hemingway, Wright and Bellow. P: 351-216 or 217 or cons inst; 3 additional lower-level cr in literature or creative writing.

351-332 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, Theodor Roethke, Anne Sexton, Gary Snyder, and Margaret Atwood. P: 351-216 or 217 or cons inst; 3 additional lower-level cr in literature or creative writing.

351-333 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: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 214, 215, 216, 217.

351-335 Literary Eras 3 cr.

Studies the works of a number of writers in relation to their time; includes poetry, prose and drama. May be repeated for credit when a different era is studied. P: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 214, 215, 216, 217.

351-350 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: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 212, 213, 214, 215, 216, 217; 915-309, 310, 351, 352, 409; may be repeated for cr with a different theme.

351-351 Major Foreign Prose Fiction 3 cr.

Study of French, German or Spanish short story and/or novels either by period or theme; conducted either in the foreign language or in English. P: jr st and 352-105 or 225 and one of the following: 352-104, 107, 206, 214, 215, 216, 217.

351-352 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: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 214, 216, 217.

351-431 Shakespeare 3-4 cr.

Study of a representative selection of Shakespeare's plays, including comedies, tragedies and histories. P: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 212, 213, 214, 215, 216, 217; 915-309, 310, 351, 352, 409.

351-434 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: 351-214 or 215 or cons inst; 3 additional lower-level cr in literature or creative writing.

351-435 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 theme is studied. P: two of the following: 351-104, 214, 215, 216, 217.

351-438 Major Spanish Writer 3 cr.

Study of an outstanding figure in Spanish literature. Subjects will vary. Offered in either Spanish or English.

351-478 Senior Distinction in English 3 cr.

See Courses with Variable Content.

351-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

351-490 Seminar in Literature 3 cr.

Intensive study of a major writer, literary movement, literary period or influence. P: jr st and 352-105 or 225 and one of the following: 351-104, 107, 206, 214, 215, 216, 217.

351-497 Internship 3-12 cr.

See Courses with Variable Content.

351-498 Independent Study 1-4 cr.

See Courses with Variable Content.

Literature and Language

352 English Composition**352-100 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: 915-093 or enhanced ACT English score of 17 or higher.

352-105 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: 352-100 or 246-100 or enhanced ACT English score of 25 or higher.

352-161 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 352-163.

352-163, 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 352-161. P for 164: ESL placement test or 352-163; Rec: 352-161 or equiv; fulfills Writing Emphasis Skills requirement for nonnative speakers of English.

352-166 Fundamentals of Interpersonal Communications 3 cr.

Principles of personal interaction as a basis for 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.

352-225 Writing About the Arts and Humanities 3 cr.

A writing course designed to engage students in the issues raised by the arts and humanities so that each student may continue to improve his or her writing ability. P: 352-100 or ACTF English score of 25 or higher; WE course; fulfills major or minor requirement which specify 352-105 as a required course.

352-226 Writing About the Social Sciences 3 cr.

A writing course designed to engage students in the issues raised by the social sciences so that each student may continue to improve his or her writing ability. P: 352-100 or ACTF English score of 25 or higher; WE course; fulfills major or minor requirement which specify 352-105 as a required course.

352-227 Writing About the Sciences 3 cr.

A writing course designed to engage students in the issues raised by the sciences so that each student may continue to improve his or her writing ability. P: 352-100 or ACTF English score of 25 or higher; WE course; fulfills major or minor requirement which specify 352-105 as a required course.

352-304 Advanced Expository Writing 3 cr.

Study and practice of non-fiction writing of various kinds, including autobiography, argument, personal essay, formal essay; emphasizes developmental strategies, organization, tone and style. P: 352-105 or enhanced ACT English score of 25 or higher or cons inst; Rec: 6 cr lower-level literature.

352-305 Composition Practicum: Tutoring 1 cr.

Effective tutoring in composition requires both a working knowledge of composition theory and guided practice with students. This course will invite students to explore those theories and to reflect on their application as they work as tutors in the Writing Center. P: Cons of inst.

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.

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 required.

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.

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.

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.

362-207 Laboratory Safety 1 cr.

Topics include current regulations, identification of hazards, chemical storage, labeling, waste management, personal protective equipment, ventilation, spill response and biosafety. Emphasis on practical applications. P: one college laboratory science course.

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.

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 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.

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.

362-298 Independent Study 1-4 cr.

See *Courses with Variable Content*.

362-302 Principles of Energy 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.

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.

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.

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.

362-315 Classic 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.

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.

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 required. P: 225-108 or 225-212; Rec: 296-202.

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.

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.

362-335 Water and Waste Water Treatments 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.

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 trip required. P: 296-202.

362-350 Meteorology 3 cr.

Examines the composition and structure of the atmosphere, atmospheric thermodynamics, dynamics and kinematics of air motion and radiation in the atmosphere. P: 600-203.

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.

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.

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 Mexico: Natural Sciences 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.

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.

362-392 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.

362-401 Stream Ecology 3 cr.

Structure and function of stream ecosystems. Functional relationships of feeding groups, nutrient spiraling 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.

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.

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.

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.

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: grade of C or better in 225-311; a grade of C or better in 225-300 or 225-302/303.

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.

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.

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 conservatoin.

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.

362-471 Biological Resources Management I 3 cr.

First part of a two-semester sequence about the scientific management of natural habitats, endangered species, pest species, and economically valuable plants and animals. This course emphasizes management of natural or semi-natural systems such as preserves, parks, and restored habitats. P: 362-302.

362-472 Biological Resources Management II 3 cr.

Second part of a two-semester sequence concerning the ecological management of biological resources. Lectures and field trips address modern practices of wildlife and fisheries management, forestry, ranching, and sustainable agriculture. P: 362-471.

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: 204-303 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.

362-497 Internship 3-12 cr.

See Courses with Variable Content.

362-498 Independent Study 1-4 cr.

See Courses with Variable Content.

Literature and Language

397 French**397-101, 102 Introduction to the French Language 4, 4 cr.**

Development of basic ability in understanding, reading, speaking and writing in French. Rec for 397-102: 1 yr high school or 1 semester college French.

397-201, 202 Intermediate French Language I, II 4, 4 cr.

Further development of the ability to understand, read and speak French. Rec for 397-201: 2 years high school or 2 semesters college French; one additional hour ARR. Rec for 397-202: 3 years high school or 3 semesters college French.

397-225 Intermediate French Conversation and Composition 3 cr.

Development of greater fluency in French through classroom practice in conversation and composition. Rec: 4 years high school or 4 semesters college French.

397-230 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: 397-201 or equivalent.

397-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

397-298 Independent Study 1-4 cr.

See Courses with Variable Content.

397-325 Advanced French Conversation and Composition 3 cr.

Continues development of fluency in French through intensive practice and study of the spoken and written language. Stresses accurate use of grammatical structures and sensitivity to differences in style, tone and levels of language from colloquial to formal. P: 397-225.

397-329 Representative French Authors 3 cr.

Important novels, plays, poems, and essays representative of major eras and movements of French society foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and different treatment of recurring themes. Offered in the language. P: 397-225.

397-330 French Television for Conversation 3 cr.

French TV programs are used: to improve listening skills; to provide subject matter for small-group conversations, thereby improving speaking ability; to provide cultural insights while working on the first two goals. Rec: 397-225 or equiv.

397-333 Literary Themes 3 cr.

Explores a single theme such as fantasy, war, revolution, love, alienation, through the literature of one or many nations; may be repeated for credit when a different theme is studied. P: 397-225 or equiv; may repeat for cr when different theme is studied.

397-335 Literary Eras 3 cr.

Studies the works of a number of writers in relation to their time; includes poetry, prose and drama. P: 397-225; may repeat for cr when different era is studied.

397-345 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: 397-225 or equiv.

397-346 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. P: 397-225 or equiv.

397-350 Major French Drama 3 cr.

Study of French drama either by period or by theme; conducted either in French or in English. P: 397-225 or equiv.

397-351 Major French Prose Fiction 3 cr.

Study of French short story and/or novels either by period or by theme; conducted either in French or in English. P: 397-225 or equiv.

397-352 Major French Poetry 3 cr.

Study of French poetry, either by period or by theme; conducted either in French or in English. P: 397-225 or equiv.

397-354 France Today 3 cr.

See 493-354.

397-355 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. P: 397-225 or equiv.

397-366 Study Abroad: Paris 3 cr.

See 493-366. P: 397-225.

397-478 Senior Distinction in French 3 cr.

See Courses with Variable Content.

397-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

397-497 Internship 3-12 cr.

See Courses with Variable Content.

397-498 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 systematics analysis.

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.

416-222 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.

416-250 Displays of Geographic Information 3 cr.

The appreciation, use, and evaluation of maps and air photos as informational sources.

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 or 416-120.

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 416-120.

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: jr st.

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: 416-202 and jr st.

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.

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.

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.

416-368 Geopolitics of World Regions 3 cr.

See 951-368.

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.

416-372 Analysis of the Great Lakes Region of North America 3 cr.

See 951-372.

416-377 Analysis of Northern Lands 3 cr.

See 951-377.

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 or 101.

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.

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.

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.

Literature and Language

424 German**424-101, 102 Introduction to the German Language I, II 4, 4 cr.**

Development of basic ability in understanding, reading, speaking and writing in German. Rec for 424-102: 1 year high school or 1 semester college German.

424-201, 202 Intermediate German Language I, II 4, 4 cr.

Further development of the ability to understand, read and speak German. Rec for 424-201: 2 years high school or 2 semesters college German, one additional hour ARR. Rec for 424-202: 3 years high school or 3 semesters college German.

424-225 Intermediate Conversation and Composition 3 cr.

Development of greater fluency in German through classroom practice in conversation and composition. Rec: 4 years high school or 4 semesters college German.

424-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

424-289 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: 424-101; see 424-361 to enroll for trip to Germany.

424-298 Independent Study 1-4 cr.

See Courses with Variable Content.

424-325 Advanced German Conversation and Composition 3 cr.

Continues development of fluency in German 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: 424-225.

424-329 Representative German Authors 3 cr.

Important novels, plays, poems, and essays representative of major eras and movements of German society foster appreciation of the language and understanding of the literature and culture. Includes different styles of writing and differing treatment of recurring themes. Offered in German. Rec: 424-225; may be repeated when different author is studied.

424-333 Literary Themes 3 cr.

Explores a single theme such as fantasy, war, revolution, love, alienation, through the literature of one or many nations; may be repeated for credit when a different theme is studied. Rec: 424-225; may be repeated when different theme is studied.

424-335 Literary Eras 3 cr.

Studies the works of a number of writers in relation to their time; includes poetry, prose and drama. Rec: 424-225; may be repeated when different theme is studied.

424-350 Major German Drama 3 cr.

Study of German drama either by period or by theme; conducted either in German or in English. Rec: 424-225.

424-351 Major German Prose Fiction 3 cr.

Study of German short story and/or novels either by period or by theme; conducted either in the foreign language or in English. Rec: 424-225.

424-352 Major German Poetry 3 cr.

Study of German poetry either by period or by theme; conducted either in German or in English. Rec: 424-225.

424-356 Contemporary German Culture 3 cr.

See 493-356.

424-361 June Abroad: German Culture 3 cr.

See 493-361.

424-478 Senior Distinction in German 3 cr.

See Courses with Variable Content.

424-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

424-485 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: 424-225.

424-497 Internship 3-12 cr.

See Courses with Variable Content.

424-498 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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 coherency and social force in the works of key American thinkers and in the formation of characteristic American cultural agencies. Rec: jr st.

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.

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.

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.

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.

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.

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.

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.

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.

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 policies. Rec: jr st.

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.

448-340 Topics in African-American History 3 cr.

Each semester of the course will explore a significant topic in African-American history, such as the civil rights movement, Black nationalism, the African-American family, alienation and affirmation, and others.

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. Emphasizing the remaking of Southeast Asia under the stimulus of the West and the Southeast Asian response. Rec: jr st.

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.

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.

448-401 The Transformation of American Schools 3 cr.

The history of American education, emphasizing public primary and secondary schools and 20th century developments. P: jr st.

448-402, 403 Political and Social History of the Modern U.S. I, II 3, 3 cr.

Traces the development of political and social institutions in the U.S. from 1900 to the present. Emphasizes the evolution of social problems and responses of political institutions. Rec: jr st.

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.

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 Fundamentals 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
- 951-313 The City Through Time and Space

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.

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.

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.

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.

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.

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.

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; develop-

ment of the human nervous system and behavior; chemical, nutritional and stress effects. P: 478-102 or 204-202.

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.

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.

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.

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.

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.

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.

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 or transfer course 204-002.

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; immune system; kidney; digestion; and the role of physiology in diseases and medicine. P: 204-203 or transfer course 204-002 or 478-203/204; 225-108 or 225-212.

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 478-203/204 or transfer course 204-002; 225-108 or 212.

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.

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.

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 development process of the older child and adolescent. Stresses interpretation of behavior from the perspectives of such theorists as Erickson and Piaget. P: 481-210 or 820-102; Rec: 481-331 or equiv.

481-333 Observation and Interpretation of Child Behavior 3 cr.

Study of the behavior and development of young children in selected situations and comparison with established child development theories and data. P: 481-331.

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.

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.

481-336 Gender Role Development 3 cr.

Development 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.

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; Rec: 481-331, 332.

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.

481-350 Developmental Psychobiology 3 cr.

New brains, young minds, and early behaviors will be explored using animal and human models. P: 481-210 or 820-102 plus 478-102 or 204-202.

481-352 Social and Family Influences on Early Development and Learning 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.

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.

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; 481-331 or 332 or 343.

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: 255-205 or 600-260.

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: 481-331 or 332 or 343.

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 or 332, and 481-429 or 435, and jr st.

481-437 Counseling with Adults and 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: jr st; 481-343, and 481-429 or 435.

481-440 Human Development Seminar 1-3 cr.

The opportunity for human development majors to apply the theoretical, methodological, and personal knowledge and skills they have developed throughout their course of study. P: graduating senior majoring in human development.

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 process of aging). Discusses relationships among the physiological, emotional, cognitive, social and personality changes in later life; health care and social policies. P: 481-343.

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.

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.

493-106 Great Books 3 cr.

Introductory study of notable literary and nonliterary texts, considered from a historical perspective.

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.

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.

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.

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.

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.

493-225 American Indian Studies: Arts and Ceremonial Traditions 3 cr.

See 242-225.

493-226 American Indian Studies: Wisconsin Indians 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.

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.

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.

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.

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.

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.

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 multiplicity of gods and goddesses; and the various sects and schools of Buddhism — Theravadic, Mahayana, Zen and Tantric. Rec: jr st.

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.

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.

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.

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.

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.

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.

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.

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.

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.

498-349 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.

498-354 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.

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.

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.

493-360 Spain Today 3 cr.

Aspects of contemporary Spain, including its cultures, architecture, music, art and values. P: jr st or cons inst.

493-361 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 424-201.

493-363 Study Abroad: Mexico 2 cr.

Exposure to the accessible portions of a culture of ancient Mexico, the culture of present-day Mexican villages and the culture of contemporary urban Mexicans, typically in the states of Yucatan, Quintana Roo, Campeche and Chiapas; emphasis typically upon ancient and contemporary Maya cultures. P: prior written const inst; Rec: minimum one semester Spanish or equiv.

493-364 Women and Religion 3 cr.

See 875-440.

493-365 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: 351-214.

493-366 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.

493-371 American Indian Art and Artists 3 cr.

The art and painting of selected North American Indian cultures, using comparative analysis of arts as expressions of differing value systems. Variable content; may be taken more than once. P: jr st; 493-225 or 226.

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.

493-374 Wisconsin Indians: Ethnohistory 3 cr.

An in-depth study of one of the Wisconsin Indian tribes: Iroquois (Oneida), Menominee, Winnebago, or Ojibway. This variable content course covers the worldview, oral traditions, and history of one tribe each semester.

493-376 Cultural Conflict in French Canada 3 cr.

Analyzes the conflict between the English and 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.

493-381 Women, Myth and Identity 3 cr.

Mythico-religious images of women continue to exert great, but often unexamined, influence on "accepted" roles for women. The course focuses initially on the very earliest images of women as revealed in Paleolithic cave art, the Mediterranean civilizations, and Judeo-Christian tradition, tracing the development and changes in these images as they affected women, psychologically, socially, politically and economically.

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. Rec: jr st.

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 const inst.*

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.*

520-230 Visual Information 3 cr.

Practices, problems and technologies of presenting information visually.

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.

520-440 Information and Computing Science Practicum 3 cr.

A projects course in which teams submit proposals to work on an information problem. Projects provide experience in leadership roles, resource allocation, scheduling, documentation, client relations, and presentation. Problems typically draw on a wider array of skills than in other individual classes. *P: sr st or const inst.*

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.

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; cr not granted for 600-101 if prior cr received for 600-104, 202, or 203.*

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; cr not granted for 600-104 if prior cr received for 600-202 or 203.*

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.*

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.*

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.*

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.*

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 and 216-215, *P: 600-101, or transfer course 600-004, or 2 years hs algebra and enhanced ACT math score of 19 or higher.*

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 modeling 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.*

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.*

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.

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.

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.

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.

600-328 Introduction to Algebraic Structures 3 cr.

Groups, rings, and fields as organizing ideas. Basic structure theorems. Applications. P: 600-203 and 320.

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.

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.

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.

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.

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.

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.

600-425 Dynamical Systems 3 cr.

Fundamental concepts and techniques of discrete and continuous dynamical systems; asymptotic behavior, structural stability, elementary bifurcations, strange attractors, fractals, chaos. Applications to physical and biological systems. P: 600-209, 320 and 305, or conc reg in 600-305.

600-465 Business and Industrial Statistics 4 cr.

Statistical methods commonly applied in business and industry: quality control, control charts and acceptance sampling; multiple regression, time series, smoothing and forecasting; index numbers. P: 600-260.

600-467 Applied Regression Analysis 3 cr.

Techniques for fitting linear regression models are developed and applied to data. Topics include simple linear regression, multivariate regression, curvilinear regression and linearizable models. P: 600-260; Rec: knowledge of MINITAB.

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.

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.

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.

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.

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.

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.

670-242 Jazz and Pop Literature 2 cr.

Open to singers or instrumentalists. Students memorize and perform standard pop and jazz literature. P: soph st or cons inst.

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.

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.

670-303 Vocal Pedagogy 2 cr.

Provides a basic method of teaching and vocal production, detailed explanation of the techniques and principles of singing, and a guide for the effective teaching of applied voice for the inexperienced teacher. P; jr st and 672-206 (Applied Voice).

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.

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.

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.

670-333 Basic Conducting 2 cr.

Detailed study of conducting techniques: practical application to choral and instrumental ensembles. P; 670-152.

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.

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.

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.

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.

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.

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, 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.

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.

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.

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.

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 I, 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.

672-011, 012, 013 Keyboard Musicianship I 1 cr.

P; cr or conc enroll in 670-151.

672-021, 022 Keyboard Musicianship II 1 cr.

P for 021: 672-011 or audition, P for 022: 672-012 or audition.

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.

672-041, 042 Keyboard Musicianship IV 1 cr.

P for 041: 672-031 or audition, P for 042: 672-032 or audition.

672-045, 046 Elementary Voice I, II 1, 1 cr.

672-069 Elementary Guitar 1 cr.

P: 302-300 or cons inst.

672-142, 342 Jazz Combo 1 cr.

P: audition, cons inst. Repeatable up to 6 cr.

672-143, 343 Jazz Ensemble 1 cr.

P for 143: audition, P for 343: jr st and audition.

672-144, 344 Woodwind Ensemble 1 cr.

P for 144: audition, P for 344: jr st and audition.

672-145, 345 Brass Ensemble 1 cr.

P for 145: audition. P for 345: jr st and audition.

672-146, 346 Percussion Ensemble 1 cr.

P for 146: audition. P for 346: jr st and audition.

672-150, 350 New Music Ensemble 1 cr.

P for 150: audition. P for 350: jr st and audition.

672-163, 363 Vocal Ensemble 1 cr.

P for 163: audition. P for 363: jr st and audition.

672-164, 364 University Singers Show Choir 1 cr.

P for 164: audition. P for 364: jr st and audition.

672-165, 365 Vocal Jazz Ensemble 1 cr.

P for 165: audition. P for 365: jr st and audition.

672-241, 441 Concert Band 1 cr.

P for 241: audition. P for 441: jr st and audition.

672-261, 461 Concert Choir 1 cr.

P for 261: audition. P for 461: jr st and audition.

672-262, 462 University Chorus 1 cr.

P for 262: audition. P for 462: jr st and audition.

672-275, 375 Performance Practicum: Major Musical 1-3 cr.

P for 275: audition. P for 375: jr st and audition.

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.

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.

689-311 Theoretical Foundations for Professional Nursing Practice 3 cr.

Addresses selected nursing and interdisciplinary theories, emphasizing the Roy Adaptation Model. Teaching-learning strategies enable students to identify theoretical applications for professional nursing practice, particularly in the roles of care provider, teacher, and advocate. P: R.N. license.

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.

689-325 Nursing Diagnostics and Therapeutics 4 cr.

Examines selected therapeutic nursing interventions as treatments for individuals' health-promoting and health-supporting responses. Nursing and interdisciplinary theories are frameworks for professional roles. Clinical experiences are with children, adolescents, young adults, and/or middle-aged adults. P: matriculate to BSN; 689-315 and 311 or conc enroll.

689-415 Gerontological Nursing 4 cr.

Nursing and interdisciplinary theories pertaining to older adults and their families are addressed as bases for professional roles. Clinical experiences are in community-based and institutional settings. P: 689-435.

689-431 Nursing Management 3 cr.

Management, organizational, and change theories are presented as frameworks for the professional nurse's role as manager of care for aggregates. Skills in critical thinking, communication, collaboration, and self-evaluation are emphasized as keys to successful nursing management. P: 689-441.

689-435 Nursing Research 3 cr.

An overview of the professional nurse's role as research consumer focusing on application to nursing practice. Emphasizes research methods used by nurse-researchers and ethical implications of conducting nursing research. Includes strategies for critical reading of nursing research reports

and discussing findings with health care consumers. P: 689-325 and 600-260 or 255-205 or conc enroll.

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: 689-415.

689-451 Advanced Nursing Concepts 4 cr.

Helps students to synthesize nursing and interdisciplinary knowledge into a congruent framework for professional nursing practice. Addresses nurses' leadership role and involvement in society. Emphasizes ongoing self evaluation of the professional role. P: 689-431.

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 Food and Nutritional Health 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 204-202.

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.

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 of 1 year hs chemistry.

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.

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.

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.

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.

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.

694-328 Physiological Chemistry 3 cr.

Principles of physiological chemistry as related to structure, function and metabolism in living organisms. P: a grade of C or better in 225-300. Full credit will not be granted for both 225-330 and 225/694-328.

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.

694-402 Foodservice Management 3 cr.

Principles of management and organization as applied to the foodservice industry; using a systems concept approach. P: 694-312 or conc enroll.

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.

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.

694-421 Community Nutrition 4 cr.

Application of nutrition concepts to the public health/community nutrition setting; overview of community nutrition programs and related legislation. Field trips. P: jr or sr st; 694-300.

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.

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.

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.

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.

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.

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.

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.

736-111 Elementary Logic 3 cr.

Recognizing and judging the validity of various types of reasoning, especially those which are employed in nontechnical contexts.

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.

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.

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?

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.

736-212 Philosophy of Science 3 cr.

The classical positions and current controversies in the philosophy of science.

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.

736-214 Modern Philosophy 3 cr.

Major thinkers and movements representative of philosophical thought from the 17th century to the present. Rec: 736-213.

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.

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.

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.

736-324 Contemporary Philosophy 3 cr.

Current philosophical movements in Europe and America, such as phenomenology, existentialism, analytic philosophy, intuitionism, pragmatism and Marxism.

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.

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.

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.

736-406 Philosophical Problems in Psychology 3 cr.

A philosophical study of some major psychological theories in light of such issues as the possibility of freedom and the role of society in human development. Rec: two courses in philosophy.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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

181 Officiating Swimming and Diving

183 Officiating Volleyball

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.

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.

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.

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.

742-213 Sailing 1 cr.

Advanced techniques of sailing including safety, weather, and navigation. Special fee of \$10. P: 742-101.

742-223 Exercise Leadership II 1 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.

742-248 Karate II 1 cr.

Builds upon basic skills and physical and mental development of beginning karate. Provides opportunity to improve students' karate rank by continuing instruction in offensive and defensive techniques in conjunction with voluntary competition. P: 742-148.

742-254 Tennis II 1 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.

742-259 Racquetball II 1 cr.

Provides students with comprehensive insight into all aspects of the sport: safety, conditioning, strategy, and skill analysis for singles, doubles, and other play variations. P: 742-159.

742-402 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.

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).

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.

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.

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.

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.

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.

754-141 Astronomy 3 cr.

A study of the solar system, stars, galaxies and universe. Field trip required.

754-180 Concepts of Physics 3 cr.

Survey of physics, including motion, forces, momentum, energy, solids, liquids, gases, sound, heat, electricity, magnetism, light, atomic and nuclear physics. Designed for nonscience majors; credit will not be awarded to students who have taken 754-103, 104, 201 or 202.

754-181 Concepts of Physics Laboratory 1 cr.

Laboratory course to accompany 754-180. Full credit will not be granted for both 754-181 and 103, 104, 201, or 202. P: cr or conc enroll in 754-180.

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. 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 600-203.

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.

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.

754-318 Optics Laboratory 1 cr.

Experiments in geometric and physical optics. P: cr or conc enroll in 754-317.

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.

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.

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.

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.

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.

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.

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 835-202.

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 951-200.

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 835-202.

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: 778-101.

778-314 Administrative Law 3 cr.

See 835-314.

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: 778-101.

778-320 Constitutional Law 3 cr.

Builds an appreciation for the political nature of Constitutional Law in the United States through analysis of critical Supreme Court cases. Study given to the political and historical context of these cases as well as to implications for public policy. P: 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: 778-101.

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: 778-100 or 101.

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 or 101.

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.

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: 778-100 or 101.

778-368 Geopolitics of World Regions 3 cr.

See 951-368.

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: 778-100 or 101.

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 835-202.

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: jr st and 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.

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.

820-205 Psychology of Human Adjustment 3 cr.

Personality adjustment and maladjustment in normal persons; need, frustrations and conflict; adaptive techniques; analysis and rehabilitation.

820-283X Selected Topics 1-4 cr.

See Courses with Variable Content.

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.

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.

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.

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.

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.

820-390 Environmental Psychology 3 cr.

Human-environment relationships; examines ways in which the physical environment influences human behavior. P: 820-102 or 202.

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.

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.

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.

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-level 820 course.

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.

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: 481-210 or 820-102 and 202 and 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.

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: 820-390 or two lower-level 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.***835 Public and Environmental Affairs****835-201 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.

835-202 Introduction to Public Policy 3 cr.

Contemporary issues in American public policy. Substantive public policies such as those dealing with the American economy, energy, crime, environmental quality, the welfare state and social programs. Models of the policy process are also considered.

835-215 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 778/835-202.

835-283X Selected Topics 1-4 cr.*See Courses with Variable Content.***835-298 Independent Study 1-4 cr.***See Courses with Variable Content.***835-301 Environmental Politics and Policy 3 cr.**

See 778-301.

835-306 Regulatory Policy and Administration 3 cr.

See 778-306.

835-309 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.

835-314 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 835-215.

835-315 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 835-202; Rec: 835-215.

835-322 Environmental Planning 3 cr.

History, processes, and impacts of environmental planning in the United States. Action forcing legislation and its effect on environmental issues and processes. Emphasizes environmental planning and implementation at the national, state, and local levels. P: 362-102, 835-202.

835-323 Land-Use Controls 3 cr.

Various forms of public land-use controls in planning and administration, addressing "what, why and how" aspects of land-use controls. Students analyze zoning and subdivision regulations of a selected community. P: jr st.

835-344 Leadership in Organizations 3 cr.

Roles, functions and environments of organizational supervisors, project leaders, executives, managers, administrators and other administrative agents, especially in public enterprises; the relationships between the behavior of administrative agents and work group performance in organizational and program settings.

835-350 Geographic-Land Information Systems 3 cr.

See 416-350.

835-356 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.

835-378 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.

835-402 Environmental and Resource Economics 3 cr.

See 298-402.

835-406 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 835-215.

835-408 Public Policy Analysis 3 cr.

See 778-408.

835-409 Public Finance and Fiscal Policy 3 cr.

See 298-306.

835-415 Public and Nonprofit Budgeting 3 cr.

The purposes and attributes of major public budgetary systems; principles and methods in designing and managing relationships among program planning, policy planning and budgetary operations; applications of analytical and decision-assisting tools in public budgetary operations. P: 778-101 or 778/835-202 or 835-215.

835-420 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: 835-201 or 202.

835-421 Techniques and Methods of Planning Analysis 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.

835-430 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: sr st.

835-451 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.

835-452 Planning Theory and Methods 3 cr.

Planning for public and not-for-profit agencies: theory and practical significance of planning; the political and administrative setting of planning operations; and methods of planning analysis such as strategic planning. P: 255-205 or 600-260.

835-453 Cost-Benefit Analysis 3 cr.

See 298-453.

835-461 Special Topics in Public and Environmental Affairs 3 cr.

An interdisciplinary study of public policy issues selected from public administration and environmental policy and planning. Includes issues such as health care reform, environmental policy analysis, and policy planning. P: jr st and cons inst.

835-481 Student-Led Courses 1-4 cr.

See Courses with Variable Content.

835-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

835-484 Senior Honors Project 3 cr.

See Courses with Variable Content.

835-497 Internship 3-12 cr.

See Courses with Variable Content.

835-498 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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 1780-1900 ("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.

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.

867-439 Topics in Human Rights 3 cr.

Explores the basic questions 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.

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.

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.

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.

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.

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.

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.

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.

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.

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 cr for or conc reg in any Senior Seminar.

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 interdisciplinary perspective. P: sr st; no prior cr for or conc reg in any Senior Seminar.

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.

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.

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 Union 3 cr.

Past, present, and future changes in the European Union from socio-economic, political, and cultural perspectives with emphasis on current and potential connections between Wisconsin and the European Union. P: sr st; no prior cr for or conc reg in any Senior Seminar.

867-476 Democracy in America 3 cr.

This seminar takes the classic study of *Democracy in America* by Alexis de Tocqueville as a starting point for the examination of current issues of democracy in American politics, society, and culture. P: sr st.

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.

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.

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.

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 world's poor. P: 156-100 or 298-200 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.

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.

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 and 778-100.

875-320 Constitutional Law 3 cr.

Builds an appreciation for the political nature of Constitutional Law in the United States through analysis of critical Supreme Court cases. Study given to the political and historical context of these cases as well as to implications for public policy. P: 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. P: 900-202 or 778-101 or 448-206 or 778-100.

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.

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; socio-economic variables which have shaped women's place in the economic system; strategies for change.

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.

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.

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.

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.**875-461 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.

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.

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 Work**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.

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.

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.

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.

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.

892-320 Explorations of Fields of Practice 3 cr.

Overview of social work practice and services offered in a variety of agency settings. Presentations by practitioner experts from each service setting. P: jr st.

892-351 Child Welfare Services and Programs 3 cr.

Overview of child welfare services and programs including preventive programs, protective services, alternate care, intensive home treatment, adoption, school social work, and juvenile justice. Introduction to child welfare legislation. P: 892-305.

892-360 Social Service Delivery Systems and Cultural Differences 3 cr.

Social service programs of culturally and technologically different societies; nature of the differences between the care-giving institutions are related to the cultures from which they have emerged. P: prior written cons inst.

892-370 Social Work Methods I 3 cr.

Applications of concepts important to the understanding of individual, group, organizational and community dynamics to generalist social work practice. P: 892-305.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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 introductory-level social science course.

900-304 Deviant Behavior 3 cr.

Foundations of morality and the relationship between morality and deviance; positive and negative aspects of both deviance and conformity. P: 900-202.

900-307 Social Theory 3 cr.

Critical analysis of classical and contemporary social theories with attention to the social and intellectual context and contemporary application. P: 900-202.

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.

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.

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.

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.***Literature and Language****908 Spanish****908-101, 102 Introduction to the Spanish Language I, II 4, 4 cr.**

Development of basic ability in understanding, reading, speaking and writing in Spanish. Rec for 908-101: one additional hour ARR; Rec for 908-102: 1 year high school or 1 semester college Spanish.

908-201, 202 Intermediate Spanish Language I, II 4, 4 cr.

Further development of the ability to understand, read and speak Spanish. Rec for 908-201: 2 years high school or 2 semesters college Spanish (one additional ARR). Rec for 908-202: 3 years high school or 3 semesters college Spanish.

908-225 Intermediate Spanish Conversation and Composition 3 cr.

Development of greater fluency in Spanish through classroom practice in conversation and composition. Rec: 4 years high school or 4 semesters college Spanish.

908-283X Selected Topics 1-4 cr.*See Courses with Variable Content.***908-298 Independent Study 1-4 cr.***See Courses with Variable Content.***908-325 Advanced Spanish Conversation and Composition 3 cr.**

Continues development of fluency in 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. P: 908-225 or cons inst.

908-329 Representative Spanish Authors 3 cr.

Important novels, plays, poems, and essays representative of major eras and movements of 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 Spanish. P: 908-225 or cons inst; Rec: 908-325.

908-333 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: 908-225 or cons inst; Rec: 908-325.

908-335 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: 908-225 or cons inst; Rec: 908-325.

908-350 Major Spanish Drama 3 cr.

Study of Spanish drama either by period or by theme; conducted either in Spanish or in English. P: 908-225 or cons inst; Rec: 908-325.

908-351 Major Spanish Prose Fiction 3 cr.

Study of Spanish short story and/or novels either by period or by theme; conducted either in Spanish or in English. P: 908-225 or cons inst; Rec: 908-325.

908-352 Major Spanish Poetry 3 cr.

Study of Spanish poetry either by period or by theme; conducted either in Spanish or in English. P: 908-225 or cons inst; Rec: 908-325.

908-358 Latin America Today 3 cr.

See 493-358.

908-359 The Cultures of the Americas 3 cr.

A look at the three major cultural influences in Latin America: Amerindian, African and European. The history of ethnic relations and intercultural contact in the Americas. P: 908-225 or cons inst.

908-360 Spain Today 3 cr.

Aspects of contemporary Spain, including its cultures, architecture, music, art and values. Credit not granted for both 493-360 and 908-360. P: 908-225 or cons inst.

908-363 Study Abroad: Mexico 2 cr.

Exposure to the accessible portions of a culture of ancient Mexico, the culture of present-day Mexican villages and the culture of contemporary urban Mexicans, typically in the states of Yucatan, Quintana Roo, Campeche, and Chiapas; emphasis typically upon ancient and contemporary Maya cultures. P: 908-225 or cons inst; pr trip arrange and financial deposit.

908-372 Spanish Phonetics and Contrastive Linguistics 3 cr.

Survey of descriptive linguistics with emphasis on the sound system of Spanish; also includes syntax, semantics and morphology focusing on contrast between Spanish and English. P: 908-225 or cons inst.

908-478 Senior Distinction in Spanish 3 cr.

See Courses with Variable Content.

908-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

908-485 Study Abroad in Mexico/Spain/Guatemala 3-15 cr.

Students register for this course before departing. Upon return to U.S. they must submit course descriptions and written evaluations from their professors, together with a formal certificate and a letter grade. P: 908-225 or cons inst.

908-497 Internship 3-12 cr.

See Courses with Variable Content.

908-498 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 I 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.

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.

915-141 Musical Theatre Dance I 1 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.

915-142 Musical Theatre Dance II 1 cr.

Continuation of 915-141. A study of the historical popular dances from 1910-1950, including the Charleston, Black Bottom, Maxixe, and Jive. P: 915-141 or cons inst.

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.

915-233 Voice for the Actor I 3 cr.

Introduction to principles of vocal training systems used in actor training. Provides students with a working knowledge of their vocal and physical capabilities. Work on breathing, posture, and development of warm-up procedures. P: conc enroll in 915-235/335.

915-234 Voice for the Actor II 3 cr.

A strengthening of structural and tonal work explored in 915-233. Introduces stage dialects, character voices, and their healthful production. P: 915-233 and conc enroll in 915-235/335.

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.

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.

Dance**915-128 Jazz Dance I 1 cr.**

Introduces the beginning dance student to the techniques, theories and practice of the jazz genre. Repeatable to 3 cr.

915-134 Basic Stage Movement 1 cr.

Explores three basic elements of stage movement: space, dynamics and rhythm.

915-137 Ballet I 1 cr.

Development of strength, flexibility, coordination, rhythm and correct body placement as these elements pertain to the technical and stylistic demands of ballet upon the human body. Repeatable to 3 cr.

915-138 Ballet II 2 cr.

Continuing development of strength, flexibility, coordination, rhythm and correct body placement as these elements pertain to the technical and stylistic demands of ballet upon the human body. P: 915-137.

915-145 Beginning Modern Dance 1 cr.

The use of the medium of modern dance, both technically and stylistically, to develop strength, flexibility, coordination and rhythm in the human body, leading to physical self-expression. Repeatable to 3 cr.

915-161 Tap I 1 cr.

An introductory study of tap dancing, with emphasis on the basic techniques of waltz clog, soft shoe, and rhythm buck dances.

915-228 Jazz Dance II 2 cr.

Continued study and execution of the style and techniques of jazz dance. Study of the styles of major choreographers in American musical theatre. Repeatable to 8 cr. P: 915-128.

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.

915-261 Tap II 1 cr.

Continuation of 915-161. Introduces more complex tap technique, increase speed and clarity of technique, and complexity of tap combinations and dances. P: 915-161 or cons inst.

915-328 Jazz Dance III 2 cr.

Advanced study and execution of the style and technique of jazz dance. Studies the styles of major choreographers in the American Musical Theatre. Competence in performance stressed. Repeatable up to 10 credits. P: 915-228.

915-334 Movement Theory and Analysis 1 cr.

Theory and analysis of dance movement for upper-level dance students. P: 915-145 and 137. Rec: 915-138, 245, and 228.

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.

915-361 Tap III 1 cr.

Continuation of 915-261. Increase speed, clarity and complexity of technique, combinations and dances. Introduces syncopated and complex rhythms and techniques. P: 915-261 or cons inst.

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.

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.

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.

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 production (minimum 40 hours) required. P: conc enroll in 915-235/335; Rec: 915-221

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 and 222.

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 and 222.

915-323 Stage Lighting 3 cr.

Aesthetic practice of design of lighting in theatrical production; equipment and control systems. Participation in a theatre production (minimum 40 hours) required. P: conc enroll in 915-235/335; Rec: 915-221 and 222.

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 and 222.

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 9 cr. P: 915-221, 222 and conc enroll in 915-235/335.

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.

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.

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.

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.

951 Urban and Regional Studies**951-102 World Regions and Concepts: A Geographic Analysis 3 cr.**

See 416-102.

951-200 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.

951-210 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.

951-281 Student-Led Courses 1-4 cr.

See *Courses with Variable Content*.

951-283X Selected Topics 1-4 cr.

See *Courses with Variable Content*.

951-298 Independent Study 1-4 cr.

See *Courses with Variable Content*.

951-303 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: 951-102, 200 or 202 or 900-202.

951-305 Urban Politics and Policy 3 cr.

See 778-305.

951-309 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.

951-313 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: 951-200, 303, or 416-431.

951-323 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 or 203 or 156-100 or 493-211 or 951-200.

951-324 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 or 203 or 156-100 or 493-211 or 951-200.

951-325 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.

951-335 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.

951-340 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.

951-342 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.

951-351 Transportation and the City 3 cr.

The impact of the transportation subsystem of the city upon other urban subsystems (residential, commercial) and upon urban dwellers. P: jr st; 778-101 or 202 or 951-200 or 835-202.

951-368 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.

951-372 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.

951-377 Analysis of Northern Lands 3 cr.

A topical and regional analysis of the subarctic and arctic area of North America and Eurasia; regional emphasis on Alaska, northern Canada and Scandinavia. Field trip required. P: soph st.

951-392 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.

951-412 Urban Planning 3 cr.

Examines planning theory, focusing on models of rationality, valuation processes, political decision-making, governmental structure and fiscal policies. P: 951-102 or 200.

951-430 Seminar in Ethics and Public Affairs 3 cr.

See 835-430.

951-436 Environmental Design Studio I 3 cr.

Introduces use of creative problem solving techniques in defining, analyzing, and solving problems in the built environment at the scale of the individual. Emphasizes basic graphic and verbal presentation techniques and relationships between form, the natural environment, people, and function. P: 168-106; Rec: 951-210.

951-437 Environmental Design Studio II 3 cr.

See 242-437.

951-438 Environmental Design Studio III 3 cr.

Projects at the urban scale: design teams analyze physical, social, economic, historical, and administrative aspects of specific problems. Students formulate urban design programs and produce policies, plans, and designs. P: 242/951-437.

951-439 Environmental Design Studio IV 3 cr.

See 242-439.

951-461 Urban and Regional Studies Laboratory 3 cr.

A multi-disciplinary investigation into a special topic within urban and regional studies. Includes topics such as education, employment, housing and transportation, and urban and regional policy. P: cons inst.

951-478 Senior Distinction in Urban and Regional Studies 3 cr.

See Courses with Variable Content.

951-481 Student-Led Courses 1-4 cr.

See Courses with Variable Content.

951-483X Selected Topics 1-4 cr.

See Courses with Variable Content.

951-484 Senior Honors Project 3 cr.

See Courses with Variable Content.

951-497 Internship 3-12 cr.

See Courses with Variable Content.

951-498 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 be assured that students are prepared to successfully complete college-level work, UW-Green Bay has set standards for admission.

Although UW-Green Bay has strong admission requirements, it is guided by a philosophy of "personalized admission." Consideration is given for experiences since high school, special circumstances, and socio-economic background. For these reasons, students not meeting the standard admission policy are reviewed individually. The review committee examines each student's record and determines whether or not admission may be granted 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 strongly recommended. The application priority date is typically February 1 for freshmen and March 1 for transfer and reentry students.

Requirements for New Freshmen

To qualify for admission to 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 17 credits of college preparatory or academic coursework.

Unit distribution must be:

English	4 credits
(3 from composition and literature)	
Social Studies	3 credits
Mathematics	3 credits
(algebra and above)	
Science	3 credits
Academic Electives*	2 credits
Other Electives**	2 credits
Total	17 credits

* From the areas of English, speech, advanced math, social studies, science 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 responds 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 only a single criterion.

- An ACT composite score of 22 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 UWGB.

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 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 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 federal 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.
- 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 17 units of work outlined above and:

- class rank is in the upper 45 percent.

OR

- class rank is between the upper 46 percent and 50 percent, plus a composite ACT score is 23 or greater.
- (for schools which do not rank students) GPA is 2.75 or higher and ACT composite score is 23 or higher.

Students are likely to be placed on a waiting list for admission on a space-available basis if:

- class rank is between the upper 46 percent and 55 percent, and composite ACT is at least 20.
- (for schools 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, the University may not be able to accommodate all students who meet the minimum requirements below. Students will be admitted directly or placed on a waiting list depending upon their academic record and time of application.

- Transfer and advanced standing students should have a minimum 2.0 grade point average (4.0 scale) on at least 15 credits of transferable coursework. (See definition of transferable coursework in section on information for transfer students.) A maximum of four semester credits in physical education may be used in calculating the grade point average for determining admissibility.
- Students with less than a 2.0 grade point average on transferable coursework may be considered for admission if they would have met 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 System students who have completed the associate degree with a minimum grade point average of 2.00 will be directly admitted.)

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. In this way, they 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 UW-Green Bay.

All students who have attended nursing, business, and vocational and technical schools must submit those transcripts as well. (Transcripts from noncollege training schools attended as part of military service are not required.) Students must submit the records whether or not the work was completed and regardless of their desire to request UWGB credit for the courses. Credits earned in a noncollege parallel program at a vocational-technical college generally are not transferable to UWGB unless a specific agreement has been established. 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 Wisconsin 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 1 through January 31
Transfer and reentry: September 1 through February 28
- Spring Semester
All students: September 15 through December 15
- Summer Session
All students: September 15 through May 15

Fee. A non-refundable \$25 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.

Placement Testing

English: ACT Scores

Current, official American College Testing (ACT) scores are required for:

- all new freshman;
- all transfer and reentry students who have not satisfactorily completed at least one college-level course in English composition;
- special (non-degree) students who want to enroll in an English composition 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.

ACT test scores are used to provide a basis for course level placement in English composition, and to provide benchmark data for assessing verbal and quantitative skills developed by freshmen and sophomores. The ACT policy also complies with University of Wisconsin System Regents policy and may be used by the Admissions Office to support a student's admission to the University.

Mathematics: UW Regional Placement Testing Program

The UW Regional Placement Test is required for:

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

The Regional Placement Test is scheduled throughout the state in April and May. Students not able to take a regional test may take one of the residual tests scheduled on campus near the start of each term. The test results determine the course level placement for mathematics courses. The test fee will normally be added to the student's fee billing or paid at the time of test registration.

Information for Transfer Students

Credit Evaluation

Transfer students will receive an official credit evaluation to determine what courses and credits can be accepted to fulfill 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 or transferring 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.
- complete a course (3 credits) for the senior seminar requirement.

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 may earn regular credit which is permanently recorded for possible future use. Special students should be prudent in course selections and the number of credits accumulated. For example, an excessive number of electives may not apply to degree requirements if the student decides to change to degree-seeking status in the future. Certain opportunities, such as financial aid, for which degree-seeking students may be eligible, are not available to special students. Special students are subject to all normal academic regulations and Regent policies.

Normally, a student must have graduated from high school at least two years prior to the semester for which he or she is seeking special student admission. Exceptions are described in the categories below.

A student who has been denied degree-seeking status for a given semester at 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 UW-Green Bay.

Because of severe enrollment limits, the number of courses which may be taken by special students may be limited.

Special student categories include:

Special (SPL): Students who have 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, PSEO)

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 require the approval of the high school. UWGB 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 30 countries and actively seeks the cultural diversification that international students contribute to the campus.

Admission for international students is based upon scholastic achievement, ability to use the English language, and ability to finance an education.

An international student must have a recognized certificate of completion from a secondary school and proof of being a very good student. Since all 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. As needed, 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 may be possible for those not meeting the minimum requirements. Evidence of success as a provisional student can lead 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 \$35;
- 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 from the Graduate Studies Office 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 1994. 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 1993-94, Wisconsin undergraduate students paid \$87.75 and graduate students paid \$146.50 per credit. Nonresident undergraduate students paid \$273.09 and graduate students paid \$440.37 per credit for part-time enrollment. Minnesota undergraduate students paid \$102.09 per credit and graduate level students paid \$149.37 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*.

Summer Session

Fees for summer session are based on the number of credits selected 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, 1994		
Tuition and Fees		
Wisconsin Resident	\$1,052.00	\$1,318.50
Non-Resident	\$3,276.00	\$3,963.50
Minnesota Resident	\$1,223.00	\$1,345.00
Books and Supplies		
(average)	\$ 244.00	\$ 244.00
Campus Housing		
(double occupancy)	\$ 740.50	\$ 740.50
Campus Food Plan		
Plan A	\$ 450.00	\$ 450.00
Plan B	\$ 600.00	\$ 600.00
Total undergraduate cost per semester for a Wisconsin resident living on campus \$2,486.50 (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 a 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; 5 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 of 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 costs 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 combina-

tion. 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 room, board and miscellaneous expenses.

Aid awards are based on the cost of full-time enrollment (12 credits for undergraduates; 9 credits for graduates) unless the Financial Aid Office is 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 the 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 on page 150 of 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 on page 149 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

Federal 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 completing the Free Application for Federal Student Aid.

Federal 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 Educational 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 \$2,200 per year awarded to students of at least one-fourth Native American descent who are residents of Wisconsin. Amount of 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 director of the American Intercultural Center 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, Capital Square, 500 Cedar Street, St. Paul, MN 55101.

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

Federal Perkins Loan. Loans may be made up to \$15,000 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.

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.

Federal Stafford Student Loans. (Formerly Guaranteed Student Loans) These loans may be subsidized, need-based or unsubsidized. A subsidized loan has the interest paid by the federal government while the student is enrolled at least half-time and for a six-month grace period after he or she has left school. An unsubsidized loan has the interest paid by the student while in school and for the grace period. Both loans defer principle payment until the grace period has expired.

Depending upon the amount borrowed, the student may have more than ten years to repay the loan at a variable interest rate (for new loans after July 1, 1994) not to be greater than 8.25 percent, after the student has permanently left school. Undergraduates may borrow the following maximum amounts:

- Freshmen up to \$2,625 per year
- Sophomores up to \$3,500 per year
- Juniors and Seniors up to \$5,500 per year

The cumulative total for undergraduate dependent students is \$23,000.

Graduate students may borrow up to \$8,500 per year for a total aggregate (including undergraduate) amount of \$65,500.

Federal PLUS Loans. PLUS loans are provided for parents, non-need based and provide additional funds for educational expenses. The interest rate can change yearly and it is best to check with the lender. Like the Federal Stafford Student Loan program, these loans may be made by a lender such as a bank, credit union, or savings and loan association.

Federal PLUS enables parents to borrow up to the amount of education for each child who is enrolled at least half-time and is a dependent student. The amount parents are eligible to borrow 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 or 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.

Federal 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 employment.

Regular employment. All students may apply and be employed on campus as jobs are available. Jobs off-campus are also listed on the bulletin board outside the Financial Aid Office.

Job Location and Development (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 \$4.39 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 \$4.50 per hour:	
10 hours	\$1,530
12 hours	\$1,836
15 hours	\$2,295

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 \$7,100 and provide eligibility for waiver of out-of-state tuition, are available to graduate students by apply in 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 Bentham Memorial Scholarship
 Frank Byrne Memorial Fund
 James E. Casperson Memorial Scholarship
 David Chistenson 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 Art, 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 Krchma 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
 Sentry Insurance 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 Rural Rehabilitation Corporation Scholarship

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

Stafford
Perkins
GSL, PELL
FSEOG

State Funds

WHEG
TIP
Tuition grants
WIG
Lawton
AOP

Other Funds

BIA
Institutional
Student

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.

Persons enrolled as first time students at the University who withdraw shall have their refunds determined on a pro-rata basis up to the point in time which represents 60% of the semester.

The bursar may retain an additional \$100 or 5% of the tuition whichever is least, as a non-refundable charge.

Refund and Repayment Schedule

Fall/Spring Semesters

Action During Week	Tuition Refund	Repayment of Aid for Noninstitutional Costs
1	100%	100%
2	100%	93%
3	50%	86%
4	50%	79%
5	0	72%
6	0	65%
7	0	58%
8	0	51%
9	0	44%
10	0	37%
11	0	30%
12	0	23%
13	0	16%
14	0	9%
15	0	0

Summer Session

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.

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 re-taken voluntarily.

Other aid regulations must be adhered to, and may limit 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.

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 Scales

Undergraduate Students - Full Time

Year In School	Semesters Completed	Required Cumulative Credits
1	1/2	9/18
2	3/4	27/36
3	5/6	46/57
4	7/8	67/78
5	9/10	90/102
6	11/12	114/126+

Students must complete a minimum of 9-12 credits per semester depending upon year in school.

Undergraduate Students - Part Time

Year In School	Semesters Completed	Required Cumulative Credits
1	1/2	3/6
2	3/4	12/18
3	5/6	24/30
4	7/8	36/42
5	9/10	48/54
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 3 credits for the first two semesters and 6 credits thereafter.

Graduate Students - Full Time

Year In School	Semesters Completed	Required Cumulative Credits
1	1/2	6/12
2	3/4	18/24
3	5/6	30/36

Graduate Students - Part Time

Year In School	Semester Completed	Required Cumulative Credits
1	1/2	3/6
2	3/4	9/12
3	5/6	15/18
4	7/8	24/27
5	9/10	31/36

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 purposes, such as graduation or grade point average. Enrollment as an auditor is subject to special conditions.

P-NC Credits — pass no-credit is a specific grading option. These credits have no effect on grade point average, but, if passed, may add to the degree credits earned. Students complete a special request form to elect P-NC grading.

Grade Point Average (GPA) — a numerical value derived from dividing the number of grade points earned by the number of credits attempted on a regular grade basis. P-NC, incomplete, and audit grades and credits have no effect on grade point average. Only those 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 (academic support)	P	3	00
Total		11	30

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 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.

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.

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.

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.
DR (Dropped course)	No effect
W (Withdrew)	No effect

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 successfully 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 successfully 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

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 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 the 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.

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's designee 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 unforeseeable 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 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 spring semester may complete the summer session. However, continuation in summer 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 must make 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.

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

Grade slips are mailed by first-class mail on this schedule:

- End of fall semester on December 30, using the home address of record.
- End of spring semester on the Thursday 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 six-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.

Grades and Grade Appeal

Each student receives a grade from the instructor of a course at the end of a semester or session. Instructors must forward grades to the Registrar's Office no later than 96 hours after the final examination. 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

Students who expect to graduate in December must have all incompletes removed within 15 working days following the end of the fall semester. Students who expect to graduate in May must have all incompletes removed within 15 working days following the end of the spring semester. All grades on the record become permanent as of that date with no possibility for removal or change.

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.

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 complete.

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.

Auditions

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 standing may register for any number of credits up to a maximum of 18 credits per semester after the first day of classes. No students, except graduating seniors, may enroll for more than 16 credits. Graduating seniors may enroll for up to 18 credits as of one week before classes. 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 15-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 15-week Semester —

- student may drop any course without the instructor's signature
- permanent records show no drop

Fourth Day of the Second Week Through Sixth Week —

- course appears on permanent records with the symbol W (withdrew) or DR (dropped)

Seventh Through 15th Weeks —

- no official drops allowed; WF grade or F appears on transcript

See table for terms or classes of a shorter duration than 15 weeks, showing established pro rata deadlines. A course week always ends on a Friday. All courses beginning or ending on non-standard session weeks have a nonstandard drop deadline.

Withdrawal from the University

A student who desires to withdraw from all academic course work at any time after completing 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 or the fourth week of a six-week summer session. If a student has not attended classes or taken the final examination in a course, a grade of WF (unofficial withdrawal) is given unless official withdrawal procedures are followed.

A decision to withdraw should be given careful consideration in terms of academic retention and probation policy, veteran's benefits, athletic eligibility, financial aid, family health insurance coverage, student loan repayment deferral, and other situations which have specific consequences from withdrawal. A student who withdraws from two consecutive semesters must seek readmission to the University to enroll again.

Withdrawal from the eighth day of classes through the 12th week of a semester results in permanent recording of all courses of record at

that time with a symbol of W (withdrew) after each course. The W is not a grade and has no effect on grade point average.

Students should be aware that if they withdraw after the end of the second week of a semester, it does count as a semester of enrollment for academic progress standards and does result in a probation action. If a student can provide evidence that withdrawal is necessary due to unforeseeable extenuating circumstances, he or she may be allowed to withdraw without a probation action if the evidence is provided at the time of withdrawal.

Withdrawal by a student with an original credit load of less than six credits does not result in a probation or academic suspension action.

Late Program Changes and Withdrawals

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.

A written appeal with appropriate documentation should be submitted. If a student has any other reason for requesting a late drop or withdrawal, he/she should complete a written appeal stating the circumstances. In both cases the written appeal should be directed to the Associate Vice Chancellor, SS 1000, Window #7.

Pass-No Credit Enrollment

Students may choose the pass-no credit (P-NC) grading option if they do not want a regular grade in a course that would affect their grade point average. The decision to take a course on a P-NC basis must be made within the first two weeks of a semester or the first week of a six-week summer session. The P-NC request form must be filed with the study list request form, the program change form, or the final registration form.

Some courses may not be selected on a pass-no credit basis if they are taken to fulfill certain requirements. These include:

- General-education courses, including Senior Seminars
- Major courses (300-400 level), except student teaching
- Courses used to fulfill English Composition and Writing Emphasis (WE) requirements
- Minor courses, except student teaching
- Senior Honors (484) Projects and/or Distinction in the Major (478) Projects
- Independent Study (298-498) Courses

Course Drop Timetable

Course Length in Weeks	Drop Deadline—End of Course Session Week	"DR" Symbol Recorded After
1	End of Second Day	First Day of Classes
2	Thursday of First Week	First Day of Classes
3	Monday of Second Week	Second Day of Classes
4	Wednesday of Second Week	Second Day of Classes
5	End of Second Week	Third Day of Classes
6	Tuesday of Third Week	Third Day of Classes
7	Thursday of Third Week	Fourth Day of Classes
8	Monday of Fourth Week	Fourth Day of Classes
9	Wednesday of Fourth Week	Fifth Day of Classes
10	End of Fourth Week	Fifth Day of Classes
11	Tuesday of Fifth Week	Sixth Day of Classes
12	Thursday of Fifth Week	Sixth Day of Classes
13	Monday of Sixth Week	Seventh Day of Classes
14	Wednesday of Sixth Week	Seventh Day of Classes
15	End of Sixth Week	Eighth Day of Classes

(normal semester course)

Electives may be taken on a P-NC basis. Non-degree 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 only 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. Graduate 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*. Study list request forms must be reviewed by advisers. A student's form will not be processed for registration without an 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 may not be 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 an independent study, a student should find an instructor who will support the study. The student must prepare a statement of objectives and a list of readings and/or research projects that will fulfill the objectives. The proposal must be described on a form available for this purpose. This written proposal, approved by the instructor, 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 3.79;
- 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-C 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.

UW-CENTERS COURSE EQUIVALENCIES

Key to UWGB Course Prefixes

107	Accounting
156	Anthropology
168	Art
204	Biology
216	Business Administration
225	Chemistry
242	Communication and the Arts
246	Communication Processes
255	Community Sciences
266	Computer Science
296	Earth Science
298	Economics
302	Education
351	English: Literature and Language
352	English Composition
362	Environmental Science
397	French: Literature and Language
416	Geography
424	German: Literature and Language
448	History
478	Human Biology
481	Human Development
493	Humanistic Studies
520	Information and Computing Science
600	Mathematics
670	Music
672	Music-Applied
689	Nursing
694	Nutritional Sciences
736	Philosophy
742	Physical Education
754	Physics
778	Political Science
820	Psychology
835	Public and Environmental Affairs
875	Social Change and Development
892	Social Work
900	Sociology
908	Spanish: Literature and Language
915	Theatre
951	Urban and Regional Studies

*No 478-204 for full credit.

**CS ZOO 234 plus PHS 235 is equivalent to Green Bay 478-204.

***Applied music course number determined by instrument and proficiency level.

Center System Courses	UWGB Courses	Center System Courses	UWGB Courses	Center System Courses	UWGB Courses
Anthropology		ART 235	168 elective	ZOO 350	204 elective
ANT 100	156 elective	ART 236	168 elective	Business and Economics	
ANT 102	156-215	ART 237	168 elective	BUS 101	216-202
ANT 105	156-110	ART 238	168 elective	BUS 110	216-282
ANT 200	156-100	ART 241	168-377	BUS 194	General elective
ANT 204	156-100	ART 243	168-373	BUS 201	107-300
ANT 222	156 elective	ART 245	168-375	BUS 202	107-301
ANT 250	875-345	ART 247	168-371	BUS 204	107-302
ANT 291	156 elective	ART 254	168-331	BUS 210	216 elective
ANT 299	156 elective	ART 255	168-431	BUS 243	216 elective
ANT 300	156 elective	ART 261	168-343	BUS 297	216 elective
ANT 301	246-322	ART 272	168-364	BUS 299	216 elective
ANT 302	156 elective	ART 291	168 elective	ECO 101	298-102
ANT 303	478 elective	ART 299	168 elective	ECO 203	298-202
ANT 308	156 elective	Astronomy		ECO 204	298-203
ANT 314	156-301	AST 100	362-141	ECO 230	298-330
ANT 322	156 elective	AST 101	362 elective	ECO 243	298 elective
ANT 325	156-301	AST 200	362-141	ECO 250	298 elective
ANT 341	156 elective	AST 291	362 elective	ECO 297	298 elective
ANT 343	156 elective	Biological Sciences		ECO 299	298 elective
ANT 350	156-340	BAC 101	204-302	Chemistry	
ANT 351	156 elective	BAC 299	204 elective	CHE 100	No transfer
ANT 353	156-301	BOT 100	204 elective	CHE 112	225-101
Art		BIO 107	362-102	CHE 123	225 elective
ART 100	168 elective	BIO 109	204 elective	CHE 124	225 elective
ART 101	168-105	BIO 116	204 elective	CHE 125	225-108
ART 102	168 elective	BOT 130	204-202 and 203 (plus CS ZOO 101)	CHE 145	225-211
ART 103	168-302	BIO 151	204-202 and 203 & 152	CHE 155	225-212
ART 104	168 elective	BIO 160	204 elective	CHE 203	225 elective
ART 105	168 elective	BIO 230	204 elective	CHE 211	225 elective
ART 106	168 elective	BOT 231	204 elective	CHE 214	225 elective
ART 107	168 elective	BOT 240	204-240	CHE 244	225-311
ART 108	168 elective	BIO 250	362-302	CHE 290	225 elective
ART 109	168 elective	BIO 260	204-303	CHE 299	225 elective
ART 111	168-107	BOT 291	204 elective	CHE 343	225-302
ART 112	168-106	BOT 299	204 elective	CHE 352	225-304 and 305
ART 113	168 elective	FOR 120	362-286	CHE 363	225-303
ART 114	168 elective	WIL 140	362-188	Communication Arts	
ART 115	168 elective	NAT 170	362 elective	COM 100	246-253
ART 121	168-210	PHS 170	478 elective *	COM 101	246-166
ART 122	168-314	PHS 202	478-204	COM 102	246 elective
ART 125	168-311	PHS 203	478-204	COM 103	246-133
ART 131	168-220	PHS 230	478-204	COM 110	246 elective
ART 133	168 elective	PHS 235	478 elective **	COM 130	242-141
ART 134	168 elective	ZOO 101	204-202 and 203 (plus CS BOT 130)	COM 131	915-235
ART 141	168-270	ZOO 103	362-102	COM 150	242-210
ART 154	168-230	ZOO 105	478-102	COM 160	246 elective
ART 161	168-243	ZOO 140	362-188	COM 201	246-102
ART 170	168 elective	ZOO 155	478-206	COM 202	246 elective
ART 172	168-260	ZOO 170	478 elective *	COM 203	246-203
ART 180	242-202	ZOO 234	478 elective **	COM 204	246 elective
ART 181	242-102	ZOO 237	204 elective	COM 220	246 elective
ART 183	242-103	ZOO 277	204-342	COM 221	246-307
ART 185	242 elective	ZOO 291	204 elective	COM 230	246 elective
ART 187	242-202	ZOO 299	204 elective	COM 232	915-131
ART 188	242 elective	ZOO 315	204 elective	COM 234	915-221
ART 201	168-302	ZOO 316	678-403 (plus CS ZOO 316)	COM 266	246 elective
ART 202	168-402	ZOO 315	678-403 (plus CS ZOO 315)	COM 268	246-333
ART 209	168 elective	ZOO 316	678-403 (plus CS ZOO 316)	COM 298	246 elective
ART 210	168 elective	ZOO 317	678-403 (plus CS ZOO 317)	COM 299	246 elective
ART 222	168-414	ZOO 318	678-403 (plus CS ZOO 318)	COM 348	915 elective
ART 225	168-410	ZOO 319	678-403 (plus CS ZOO 319)	COM 349	915 elective
ART 231	168-321	ZOO 320	678-403 (plus CS ZOO 320)		
ART 232	168-421	ZOO 321	678-403 (plus CS ZOO 321)		

Center System Courses	UWGB Courses	Center System Courses	UWGB Courses	Center System Courses	UWGB Courses	Center System Courses	UWGB Courses
Computer Science							
CPS 100	General elective	ENG 261	351-215	SPA 216	908 elective	HIS 115	448-202
CPS 101	General elective	ENG 262	351-216	SPA 219	908 elective	HIS 118	448-275
CPS 105	General elective	ENG 263	351-217	SPA 221	351 elective	HIS 119	448-203
CPS 110	266 elective	ENG 264	351 elective	SPA 222	351 elective	HIS 120	448-204
CPS 113	266-256	ENG 265	351 elective	SPA 225	908-225	HIS 123	448 elective
CPS 111	(Faculty mem-	ENG 266	351 elective	SPA 226	908-325	HIS 124	448 elective
CPS 120	bers will review	ENG 267	351 elective	SPA 235	493 elective	HIS 126	448 elective
CPS 130	computer science	ENG 268	351 elective	SPA 236	493 elective	HIS 127	448-100
	transfer courses	ENG 269	351 elective	SPA 237	351 elective	HIS 150	448 elective
	individually.	ENG 270	351 elective	SPA 277	351 elective	HIS 198	242-210
	Center System	ENG 272	351 elective	SPA 291	908 elective	HIS 211	448 elective
	courses do not	ENG 273	351 elective	SPA 299	908 elective	HIS 213	448 elective
	necessarily par-	ENG 274	351 elective			HIS 215	448 elective
	allel UWGB	ENG 275	351 elective	Geography			
	courses.)	ENG 276	351 elective	GEO 101	416-202	HIS 216	448-325
CPS 131	266-255	ENG 278	351 elective	GEO 104	296 elective	HIS 219	448-315
CPS 133	See note above.	ENG 280	351 elective	GEO 107	416-250	HIS 222	448-352
CPS 210	See note above.	ENG 290	351 elective	GEO 110	416-102	HIS 240	448 elective
CPS 211	266-255	ENG 299	351 elective	GEO 115	416-215	HIS 254	448-324
CPS 213	266-256	ENG 351	351 elective	GEO 120	416-120	HIS 255	448 elective
CPS 231	See note above.	ENG 353	351 elective	GEO 121	296 elective	HIS 256	448 elective
CPS 240	See note above.	ENG 355	351 elective	GEO 123	296-222	HIS 257	448 elective
CPS 241	See note above.	ENG 370	351 elective	GEO 124	296-202	HIS 259	448 elective
CPS 243	See note above.	ENG 380	351 elective	GEO 125	416-120	HIS 260	448 elective
CPS 250	See note above.	Foreign Language		GEO 130	362-102	HIS 270	493-251
CPS 251	See note above.	FRE 101	397-101	GEO 200	416 elective	HIS 278	448 elective
CPS 252	266-271	FRE 105	397-102	GEO 277	416 elective	HIS 280	448 elective
CPS 253	266-256	FRE 118	397 elective	GEO 291	416 elective	HIS 283	448 elective
CPS 254	See note above.	FRE 119	397 elective	GEO 297	416 elective	HIS 285	448 elective
CPS 255	See note above.	FRE 201	397-201	GEO 299	416 elective	HIS 286	448 elective
CPS 256	266-270	FRE 205	397-202	GEO 300	416 elective	HIS 288	448 elective
CPS 260	266 elective	FRE 215	397 elective	GEO 324	416 elective	HIS 289	448-310
CPS 270	266-257	FRE 216	397 elective	GEO 341	416-371	HIS 290	448-311
CPS 291	266 elective	FRE 219	397 elective	GEO 342	416 elective	HIS 293	448 elective
CPS 299	266 elective	FRE 221	397 elective	GEO 347	416 elective	HIS 297	448 elective
		FRE 222	397 elective	GEO 348	416 elective	HIS 299	448 elective
		FRE 223	397 elective	GEO 349	416 elective	Interdisciplinary Studies	
Education		FRE 225	397-225	GEO 350	362-303	INT 100	General elective
EDU 100	302 elective	FRE 226	397-325	Geology and Meteorology			
EDU 200	302-250	FRE 276	397 elective	GLG 100	296-102	INT 101	875 elective
EDU 201	302-250	FRE 277	397 elective	GLG 101	296-202	INT 105	General elective
EDU 283	302 elective	FRE 291	397 elective	GLG 102	296-203	INT 210	General elective
EDU 300	302 elective	FRE 299	397 elective	GLG 104	296 elective	INT 230	General elective
EDU 330	302-322	GER 101	424-101	GLG 107	416-250	INT 231	General elective
		GER 105	424-102	GLG 130	296 elective	INT 290	General elective
Engineering		GER 118	424 elective	GLG 131	416-250	Learning Resources	
EGR 100	No transfer	GER 119	424 elective	GLG 135	362-342	LEA 100	No transfer
EGR 106	246-390	GER 201	424-201	GLG 169	362-342	LEA 101	No transfer
GRA 102	325-105	GER 205	424-202	GLG 291	296 elective	LEA 102	No transfer
GRA 113	No transfer	GER 215	424 elective	GLG 297	296 elective	LEA 103	No transfer
MEC 201	325-313	GER 216	424 elective	GLG 299	296 elective	LEA 104	No transfer
MEC 202	325-314	GER 221	424 elective	GLG 301	296 elective	LEA 105	No transfer
MEC 203	325-316	GER 222	424 elective	GLG 302	296 elective	LEA 106	No transfer
		GER 223	424 elective	GLG 306	296 elective	Lecture (University Forum)	
English and Literature		GER 225	424-225	GLG 309	296 elective	LEC 101	General elective
ENG 101	352-100	GER 226	424-325	GLG 314	296 elective	LEC 102	No transfer
ENG 102	352-105	GER 276	351 elective	GLG 343	296-470	Mathematics	
ENG 201	352 elective	GER 277	351 elective	GLG 350	296 elective	MAT 081	No transfer
ENG 202	351 elective	GER 291	424 elective	MLG 100	296-222	MAT 091	No transfer
ENG 203	351-212 or 213	GER 299	424 elective	History			
ENG 204	351-212 or 213	SPA 101	908-101	HIS 101	448-205	MAT 105	600-101
ENG 206	351 elective	SPA 105	908-102	HIS 102	448-206	MAT 110	600-104 (plus CS MAT 113)
ENG 210	351 elective	SPA 118	908 elective	HIS 105	493-101	MAT 113	600-104 (plus CS MAT 110)
ENG 220	242-160	SPA 119	908 elective	HIS 106	493-102	MAT 117	600-260
ENG 250	351-104	SPA 201	908-201	HIS 111	448-201	MAT 124	600-104
ENG 251	351 elective	SPA 205	908-202	HIS 112	448-201	MAT 130	600-281
ENG 253	351 elective	SPA 215	908 elective	HIS 114	448 elective		
ENG 255	351 elective						
ENG 260	351-214						

Center System Courses	UWGB Courses	Center System Courses	UWGB Courses	Center System Courses	UWGB Courses	Center System Courses	UWGB Courses
MAT 132	600-282	PHI 230	General elective	PED 111	742-196	POL 352	778 elective
MAT 140	600 elective	PHI 231	General elective	PED 112	742 elective	POL 385	778 elective
MAT 210	600 elective	PHI 232	General elective	PED 113	742-101		
MAT 211	600-201	PHI 240	736 elective	PED 114	742-201	Psychology	
MAT 212	600 elective	PHI 241	736-102	PED 115	742-170	PSY 201	820-102
MAT 220	600 elective	PHI 243	216-487	PED 116	742-154	PSY 202	820-102
MAT 221	600-202	PHI 244	736 elective	PED 117	742-166	PSY 203	820 elective
MAT 222	600-203	PHI 248	478-205	PED 118	742-122	PSY 205	820-205
MAT 223	600-209	PHI 253	736-211	PED 121	742-116	PSY 208	481-336
MAT 224	600 elective	PHI 258	736 elective	PED 122	742-205	PSY 210	255-205
MAT 230	600-242	PHI 291	736 elective	PED 123	742-117	PSY 224	255 elective
MAT 240	600-260	PHI 299	736 elective	PED 124	742 elective	PSY 225	820-300
MAT 262	600-320			PED 130	742-179	PSY 250	481-210
MAT 271	600-305	Physical Education		PED 131	742-183	PSY 254	820 elective
MAT 272	600 elective	(A maximum of 4 credits Physical Education accepted in transfer.)		PED 132	742-171	PSY 299	820 elective
MAT 290	600 elective	PED 001	742-141	PED 133	742-173	PSY 307	820-429
MAT 299	600 elective	PED 002	742 elective	PED 134	742-176	PSY 309	820-435
Music **		PED 005	742-161	PED 135	742 elective	PSY 311	820 elective
MUS 070	672-151	PED 006	742 elective	PED 201	742 elective	PSY 330	820-202
MUS 071	672-241	PED 007	742 elective	PED 202	742 elective	PSY 360	481-210
MUS 072	672-261	PED 008	742 elective	PED 203	742 elective	PSY 361	Faculty evaluation
MUS 073	672-164	PED 009	742-145	PED 204	742 elective		
MUS 074	672-143	PED 010	742 elective	PED 205	742-406	PSY 362	Faculty evaluation
MUS 075	672-163	PED 012	742-157	PED 206	689-215		
MUS 076	672-144	PED 014	742 elective	PED 207	742 elective	Sociology	
MUS 077	672-145	PED 016	742-154	PED 208	742 elective	SOC 101	900-202
MUS 078	672-146	PED 017	742-254	PED 211	742 elective	SOC 120	900 elective
MUS 079	672-153	PED 018	742-170	PED 212	742 elective	SOC 125	900 elective
MUS 107	670 elective	PED 019	742-122	PED 213	742-116	SOC 130	900 elective
MUS 115	670-341	PED 021	742 elective	PED 214	742 elective	SOC 131	900 elective
MUS 121	670-341	PED 022	742 elective	PED 215	742 elective	SOC 134	493-211
MUS 130	670-342	PED 024	742-137	PED 216	742 elective	SOC 138	900 elective
MUS 131	670-101	PED 025	742 elective	PED 217	742-402	SOC 160	900-375
MUS 132	670-101	PED 026	742-125	PED 291	742 elective	SOC 170	900 elective
MUS 136	670-342	PED 027	742-121	PED 299	742 elective	SOC 250	900 elective
MUS 145	670-345	PED 028	742 elective	Physics		SOC 291	900 elective
MUS 147	670-343	PED 029	742-136	PHY 107	754-180	SOC 293	900 elective
MUS 148	670-343	PED 030	742-134	PHY 110	754 elective	SOC 299	900 elective
MUS 154	670-343	PED 031	742 elective	PHY 120	754 elective	SOC 335	820-202
MUS 160	670-345	PED 032	742-144	PHY 141	754-103	SOC 357	Faculty evaluation
MUS 170	670-101	PED 033	742 elective	PHY 142	754-104		
MUS 171	670-115 and 151	PED 034	742 elective	PHY 201	754-201	Women's Studies	
MUS 172	670-152 and 116	PED 037	742 elective	PHY 202	754-202	WOM 101	875 elective
MUS 173	242-121	PED 038	742 elective	PHY 205	754 elective	WOM 138	900 elective
MUS 174	242-121	PED 039	742 elective	PHY 211	754-201	WOM 202	736 elective
MUS 271	670-251	PED 040	742 elective	PHY 212	754-202	WOM 208	481-336
MUS 272	670-252	PED 041	742-196	PHY 213	754 elective	WOM 231	General elective
MUS 273	242-329	PED 042	742-296	PHY 291	754 elective	WOM 250	875-345
MUS 275	670-251	PED 043	742-197	PHY 299	754 elective	WOM 291	875 elective
MUS 276	670-252	PED 044	742 elective			WOM 299	875 elective
MUS 280	670-333	PED 046	742 elective	Political Science			
MUS 281	670-348	PED 047	742-126	POL 101	778-100		
MUS 295	670 elective	PED 048	742-226	POL 104	778-101		
MUS 299	670 elective	PED 055	742-101	POL 106	778 elective		
Philosophy		PED 056	742-201	POL 199	778 elective		
PHI 101	736-101	PED 058	742-204	POL 201	778-340		
PHI 102	736-105	PED 061	742-208	POL 204	778 elective		
PHI 103	736 elective	PED 101	742-141	POL 206	778 elective		
PHI 106	736 elective	PED 102	742 elective	POL 219	778-202		
PHI 201	736 elective	PED 104	742 elective	POL 220	778 elective		
PHI 202	736 elective	PED 105	742 elective	POL 221	778 elective		
PHI 203	736 elective	PED 106	742-190	POL 225	778 elective		
PHI 210	736 elective	PED 107	742 elective	POL 231	General elective		
PHI 211	736-111	PED 108	742 elective	POL 275	778 elective		
PHI 220	736-212	PED 109	742-145	POL 298	778 elective		
PHI 226	736-207	PED 110	742-157	POL 299	778 elective		
				POL 308	778-310		

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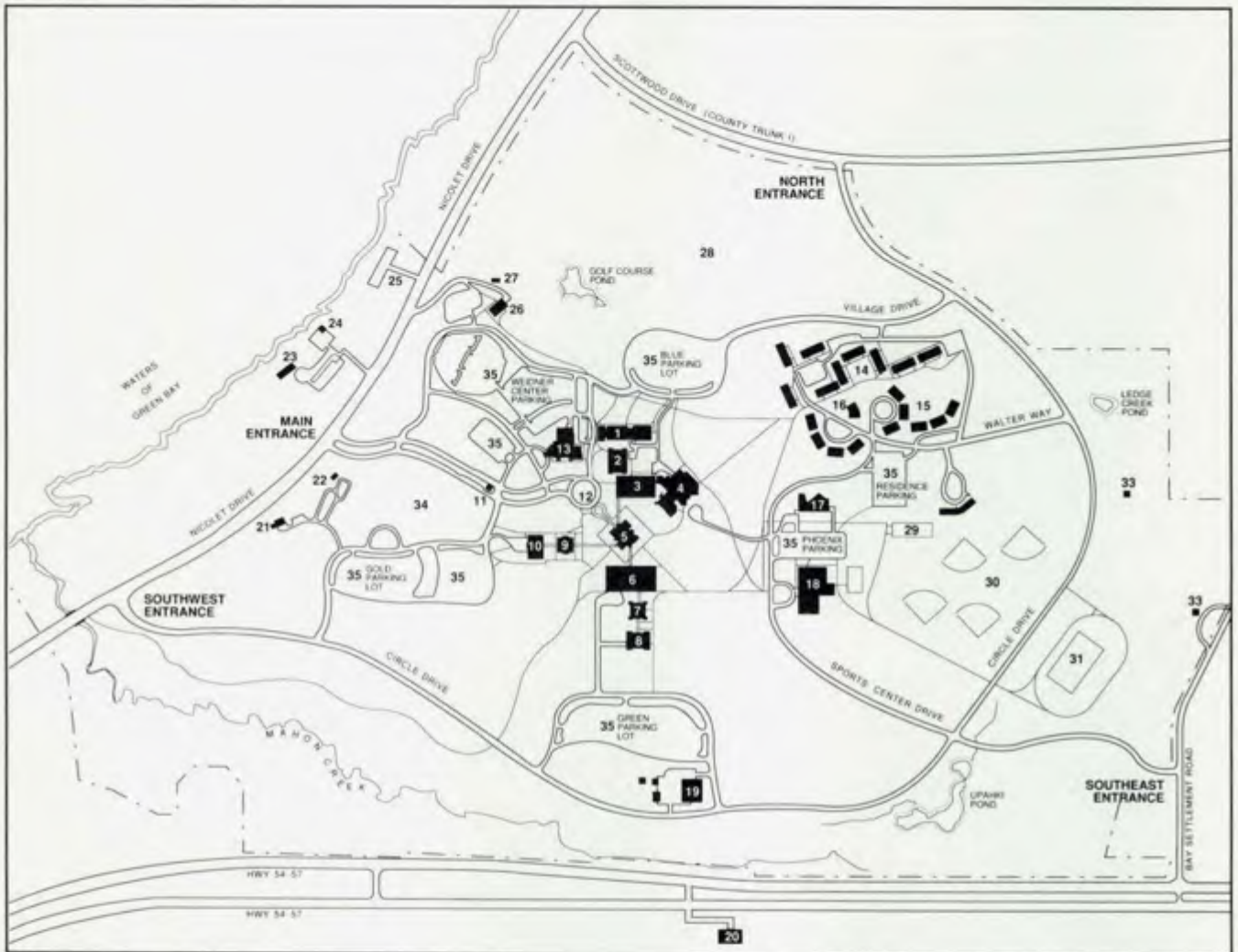
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CAMPUS MAP



Campus Map Key

1. Studio Arts
2. Theatre Hall
3. Student Services
4. University Union
5. David A. Cofrin Library
6. Instructional Services
7. Environmental Sciences
8. Laboratory Sciences
9. John M. Rose Hall
10. L.G. Wood Hall
11. Parking Office
12. Circle Entrance
13. Weidner Center for the Performing Arts
14. Student Apartments
15. Student Residence Halls
16. Community Center
17. Ecumenical Center
18. Phoenix Sports Center
19. Physical Plant/Stores
20. Heating/Cooling Plant
21. Children's Center
22. Language House

23. Bayshore Center
24. Dock Facility
25. Communiunity Park
26. Shorewood Center
27. Equipment Service Building
28. Golf Course
29. Tennis Courts
30. Playing Fields
31. Soccer Fields
32. Observation Tower
33. Weather Station
34. Amphitheatre
35. Parking

Campus Parking

Daytime parking permits are necessary in all campus parking lots (Evening and weekend parking is available on any campus lot without a permit.) Free, one-day visitor parking permits are issued at the Parking Office.

Campus Information

The Information Center is located in the lower level of the Library, just inside the Circle Entrance. It is open Monday-Thursday from 7:30 a.m. to 9 p.m.; Friday from 7:30 a.m. to 7 p.m.; Saturday from 7:30 a.m. to 6 p.m.

THE ACADEMIC CALENDAR

The University operates on a traditional semester calendar with a four-week spring intersession followed by a six-week summer session. During summer, a few courses may deviate from the six-week schedule.

	Fall Semester	1994-95	1995-96	1996-97
Classes begin		Sept. 1	Sept. 5	Sept. 3
Thanksgiving recess begins		Nov. 24	Nov. 23	Nov. 28
Classes resume		Nov. 28	Nov. 27	Dec. 2
Classes end		Dec. 16	Dec. 15	Dec. 13
Study and advising days		none	none	none
Examinations begin		Dec. 19	Dec. 18	Dec. 16
Commencement (Saturday)		Dec. 17	Dec. 16	Dec. 21
Examinations end		Dec. 23	Dec. 22	Dec. 20
	Spring Semester			
Classes begin		Jan. 17	Jan. 16	Jan. 21
Spring recess		March 11-19	March 9-17	March 15-23
Classes resume		March 20	March 18	March 24
Classes end		May 8	May 6	May 12
Study and advising days		May 9-10	May 7-8	May 13-14
Examinations begin		May 11	May 9	May 15
Examinations end		May 17	May 15	May 21
Commencement (Saturday)		May 13	May 11	May 17
	Intersession			
Classes begin		May 22	May 20	May 27
Memorial Day recess		May 27-29	May 25-27	May 24-26
Last day of classes		June 16	June 14	June 20
	Summer Session			
First day of classes		June 19	June 17	June 23
Last day of classes		July 28	July 26	Aug. 1

In conformance with applicable federal and state regulations, the University of Wisconsin-Green Bay is committed to nondiscrimination, equal opportunity, and affirmative action in its educational programs and employment policies. Inquiries concerning this policy may be directed to the Affirmative Action Office, Cofrin Library 820, University of Wisconsin-Green Bay, WI 54311-7001 (414-465-2228).

UW-Green Bay implements Chapter UWS 22, Wisconsin Administrative Code, which assures students' right to meet academic requirements while also accommodating their own sincerely held religious beliefs. Questions about policies should be directed to Dean of Students, University Union 313, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311-7001 (414-465-2152).



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