

GRADUATE STUDIES CATALOG

**UNIVERSITY OF WISCONSIN
GREEN BAY**

THE GREEN BAY IDEA OF AN EDUCATED PERSON

Approaching Life Through Applied Knowledge

Survey a modern organization. Ask what characteristics are most valued today. You will hear team orientation, critical thinking and the ability to access and use the vast information of today's world.

Ask what makes these such desirable characteristics. You will learn they are essential to identifying and defining problems, and they enhance problem solving.

Search for the educational approach best suited for today's dynamic Knowledge Age. You will find it is broad-based learning:

—learning that enhances your ability to think critically and solve problems;

—learning that prepares you to apply multiple perspectives to problems and life challenges.

At the University of Wisconsin-Green Bay, these characteristics are developed through four touchstones that form the core of the academic plan. Green Bay students come

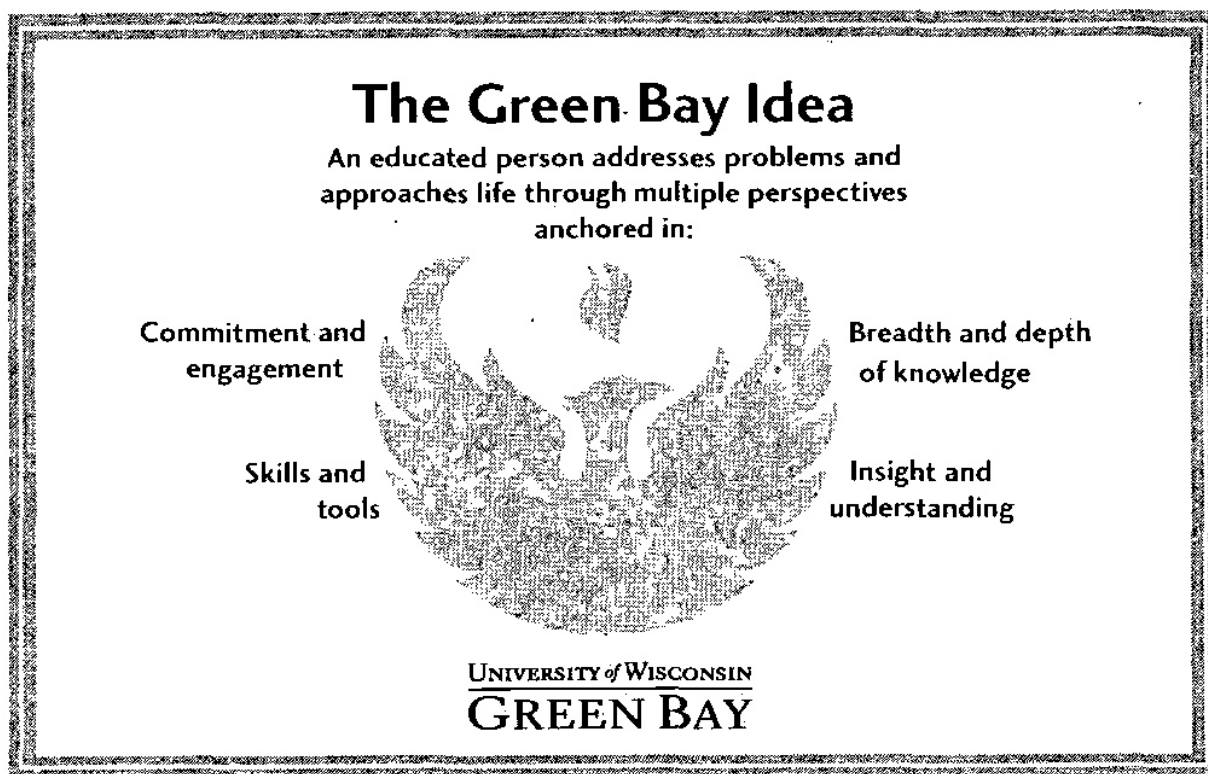
to know these touchstones through coursework, research and special learning experiences that demonstrate how they may be applied in life's work, or life itself.

We call this approach the Green Bay Idea of an Educated Person.

Helping Students Problem Solve and Draw Upon Multiple Perspectives

UW-Green Bay is committed to helping students learn how to draw on perspectives that are anchored in the four touchstones of our academic approach:

- Breadth and depth of knowledge—The educated person asks "What do I know that applies to this challenge?"
- Insight and understanding—The educated person asks "What is the context of this challenge? What does it mean?"
- Skills and tools—The educated person asks "What abilities and techniques will I use?"
- Commitment and engagement—The educated person asks "What am I going to do?"



DATES AND INFORMATION

This catalog is in effect from July 1, 1999 until it is superseded by a new catalog.

Information contained in this catalog was current at the time of its printing. Some of this information may change through action of the University of Wisconsin System Regents and/or the Wisconsin Legislature. New courses may be added and some listed courses may be altered to remain current with needs.

Current fee and tuition information is distributed as far in advance of each session as possible through the *Timetable* or a fee information sheet, both published by the Office of the Registrar. The most up-to-date information on fees is available through these publications; by calling the Office of the Registrar, phone 920-465-2055; or by accessing the UW-Green Bay homepage via Internet: www.uwgb.edu.

Course information for each session is published in the *Timetable*. Changes in course schedules for each session which occur too late to be included in the timetables are listed on addenda sheets given to students at the time of registration and are posted at the Registrar's Office. Changes are also updated on the University's website, www.uwgb.edu.

FOR MORE INFORMATION

Graduate Studies Office: Theatre Hall 335
University of Wisconsin-Green Bay, 2420
Nicolet Dr., Green Bay, WI 54311-7001;
920-465-2123

E-mail, gradstu@uwgb.edu

Campus Information, 920-465-2000

TDD (Telecommunications Device for the
Deaf) 920-465-2841

AFFIRMATIVE ACTION POLICY

In conformance with applicable federal and state regulations, the University of Wisconsin-Green Bay is committed to nondiscrimination, equal opportunity, and affirmative action in its educational programs and employment policies. Inquiries concerning this policy may be directed to the Affirmative Action Office; Cofrin Library 830, University of Wisconsin-Green Bay, 2420 Nicolet Dr.,

Green Bay, WI 54311-7001; 920-465-2228.

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, Student Services 1905, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54311-7001; 920-465-2152.

OFFICERS OF THE UNIVERSITY

Mark L. Perkins, Chancellor

Howard Cohen, Provost and
Vice Chancellor for Academic Affairs

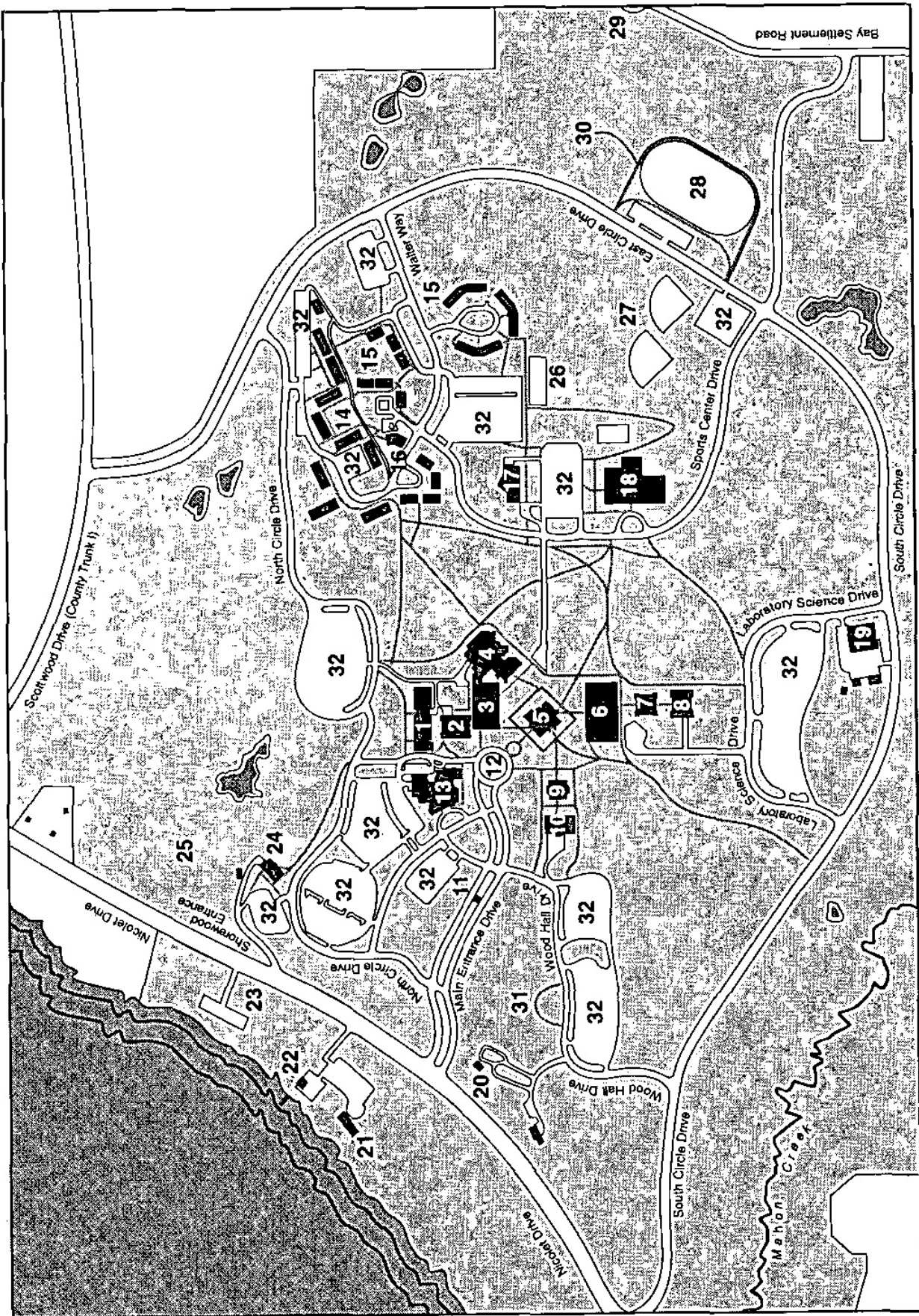
Thomas D. Maki, Assistant Chancellor
for Business and Finance

Dean Rodeheaver, Assistant Chancellor
for Planning and Budget

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CAMPUS MAP KEY

- | | |
|--|---------------------------|
| 1. Studio Arts | 17. Ecumenical Center |
| 2. Theatre Hall | 18. Phoenix Sports Center |
| 3. Student Services | 19. Physical Plant/Stores |
| 4. University Union | 20. Language House |
| 5. David A. Cofrin Library | 21. Bayshore Center |
| 6. Instructional Services | 22. Dock Facility |
| 7. Environmental Sciences | 23. Communiversit Park |
| 8. Laboratory Sciences | 24. Shorewood Center |
| 9. John M. Rose Hall | 25. Golf Course |
| 10. L.G. Wood Hall | 26. Tennis Courts |
| 11. Parking Office | 27. Playing Fields |
| 12. Circle Entrance | 28. Soccer Fields |
| 13. Weidner Center for the Performing Arts | 29. Observation Tower |
| 14. Student Apartments | 30. Weather Station |
| 15. Student Residence Halls | 31. Amphitheatre |
| 16. Community Center | 32. Parking |

GUIDING PRINCIPLES OF THE UNIVERSITY OF WISCONSIN-GREEN BAY

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

Provides an experience that challenges students to

- Think critically and solve problems
- Develop communication and quantitative skills
- Prepare themselves as engaged and contributing citizens
- Practice learning as a lifelong activity

Establishes and maintains programs and services that

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

Supports a community devoted to

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

Maintains its financial health by

- Developing private and public support
- Managing its resources effectively

Introduction

PROGRAMS AND DEGREES

The University of Wisconsin-Green Bay offers two types of programs leading to master's degrees.

The first consists of degrees awarded by UW-Green Bay. These are in three distinct areas of study:

- Master of Science in Administrative Science
- Master of Science in Applied Leadership for Teaching and Learning
- Master of Science in Environmental Science and Policy

The second group is comprised of cooperative programs with the University of Wisconsin-Oshkosh and the University of Wisconsin-Milwaukee. Course work in these programs normally is completed on the UW-Green Bay campus, but degrees are awarded by the sponsoring institution. Cooperative programs are:

- Master of Science in Administrative Leadership—Educational Administration and Supervision Emphasis (UW-Milwaukee)
- Master of Science in Educational Psychology—Counseling (UW-Milwaukee)
- Master of Business Administration (UW-Oshkosh)
- Master of Science in Education—Reading (UW-Oshkosh)

PHILOSOPHY AND HISTORY

The University of Wisconsin-Green Bay is committed to a distinctive academic plan characterized by a strong interdisciplinary education grounded in the liberal arts. It is a practical education that prepares students to evaluate issues and solve problems. The University has a strong commitment to serve the needs of the region and to extend the learning environment beyond campus boundaries.

Graduate programs at UW-Green Bay are offered in areas reflecting particular strengths of the academic program and needs of the region.

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 University is one of 13 degree-granting institutions in the UW System.

With more than 5,000 undergraduate students and 500 graduate students, including approximately 350 students in the cooperative programs, the University is large enough to offer a diversity of programs and small enough to offer an individualized educational experience. The diverse student body includes students from most of Wisconsin's counties, half of the states, and about 30 foreign countries. Nearly one-third of the University's students are over the age of 25. The University has more than 160 full-time faculty, 95 percent of whom have earned a doctorate or its equivalent.

ACCREDITATION

UW-Green Bay is fully accredited by the North Central Association of Colleges and Schools for the bachelor's degree and for the master's degree. Accreditation is granted after a thorough examination of all aspects of a college or university by a team of faculty and administrators from other established institutions.

CAMPUS

The University is situated on a beautifully landscaped 700-acre site seven miles from the city center of Green Bay, Wisconsin. All of the University's academic buildings have been built since 1969.

The academic center of campus is the eight-story David A. Cofrin Library. Clusters of academic buildings are grouped like points of the compass on the north, south, and west around it. The new Edward W. Weidner Center for the Performing Arts is adjacent to the

Theatre Hall and Studio Arts buildings. The academic buildings and the University Union are connected outdoors by plazas and walkways and indoors by a system of concourses. The concourses, ramps and elevators in every building make the University particularly accessible to students and visitors with disabilities.

The Phoenix Sports Center, east of the academic buildings, includes the gymnasium, swimming pool, racquetball courts, team rooms, and other indoor athletic facilities. Tennis courts, baseball and softball diamonds, and other playing fields are nearby. UW-Green Bay's soccer teams play at Phoenix Field on the campus' east side.

Student apartments and residence halls are near the University Union and academic buildings and not far from the gym, swimming pool, and other sports facilities.

Water-based recreation is possible at the University's dock facility on the bay. Also on the bay is Community Park, a popular area for picnics and strolls.

Since the primary buildings are clustered, much of the campus is left open for recreational use. The nine-hole golf course is used in winter for cross-country skiing. Bicycle, skiing, and pedestrian paths connect all parts of the campus.

FACILITIES

Facilities used by the graduate programs, in addition to general classroom and office space, include laboratories, the library, computer center, and a number of ancillary program or research centers. Each of these is described below.

Area Research Center

The Area Research Center of the Cofrin Library is a depository for municipal and county manuscript records. These records provide a rich source of organizational information for students of history, genealogy, and local culture. This center is one of the most active units in the network established by the State Historical Society.

Center for Public Affairs

The Center for Public Affairs at UW-Green Bay provides an opportunity for students to participate in team research, internships, and technical assistance experiences in public policy, politics, government and public management.

Students work with state and local government officials, legislators, public managers and other public professionals in such diverse areas as hazardous materials assessment, recycling and other environmental policies, health care administration, seismic risk assessment, community design and development, zoning analysis, cultural diversity, public opinion surveys and government/business relations. Some of these projects have been funded by agencies such as the National Science Foundation and the Wisconsin Department of Natural Resources; others have been inspired and supported by local hospitals and citizen groups.

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

Austin and John Cofrin Memorial Arboretum and Natural Areas

The 290-acre Cofrin Arboretum encircling the campus is a significant resource for field trips, class projects, and individual research. Other University natural areas expand the range of landforms, vegetation communities, and animal habitats available for study.

The 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 dolomite outcrop of the Niagara Escarpment, and more than a half mile of shoreline on Green Bay. Other University natural areas include sites on Lake Michigan and in the interior of the Door County peninsula.

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

Computing Facilities

UW-Green Bay runs a Windows NT network that serves faculty, staff and students. All registered students have access to the University's computing facilities for their classroom work, writing, data analysis and research. Several introductory courses have been specially designed to give students the skills to use the computer facilities effectively throughout their academic programs. Students may also enroll in free, noncredit workshops offered by the University on how to use various computer tools. At the beginning of each semester, each UW-Green Bay student is automatically provided with an account which gives him or her access to the campus network, the Internet, all available campus software, and worldwide e-mail facilities.

UW-Green Bay's general student computer laboratories in the Instructional Services Building provide about 250 workstations. Workstations are being added to the array each year, with existing equipment updated or replaced to keep facilities current. Assistance is available in these areas during the approximately 100 hours a week they are open when classes are in session.

The University also has specialized computer laboratories elsewhere on campus. These include composition, language, graphic arts, music, photography, psychology, geography

and business. Students in these academic areas will find a variety of equipment to meet their instructional needs. The David A. Cofrin Library on campus has computer workstations to provide students access to UW-Green Bay, state and national holdings, and CD ROM multimedia facilities.

Data, Video and Voice Network

UW-Green Bay has a comprehensive data and voice network that uses a state-of-the-art universal wiring system. Over 1,000 personal computer workstations, including both IBM PC compatible and Apple Macintosh units, are attached to the campus network using switched ethernet equipment. The data network enables students, faculty, and staff to use all of the campus computing resources regardless of their location. Data and voice wiring connects all classrooms, laboratories, faculty offices, administrative areas, and on-campus student housing.

The campus network is connected to the Internet via high-speed links providing worldwide access for students, faculty, and staff from anywhere on campus. Via the campus Internet link, and in conjunction with the library mainframe system, campus users are able to access all UW System library online catalogs and online catalogs from other libraries. The Cofrin Library also supports Internet-based connections to many online database services which provide retrieval of citation and/or full text/graphics versions of selected items.

Herbarium

The UW-Green Bay Herbarium houses a collection of over 25,000 specimens of vascular plants and provides many opportunities for student research, collection, and cataloging projects. Students have collected and prepared a large number of specimens from northeastern Wisconsin, including endangered and threatened species. They continue to catalog specimens from the Cofrin Arboretum, Toft Point, and other UW-Green Bay 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. Researchers from the Wisconsin Department of Natural Resources, other University of Wisconsin campuses, and universities in other states have frequently made use of the Herbarium collection.

Institute for Land and Water Studies

The Institute brings together a group of faculty who have interdisciplinary interests in solving environmental problems. Faculty and students participate in researching diverse aspects of ecosystems: preservation and restoration, ground water and surface water resources, waste management and resource recovery and applications of geographical information systems. Projects have been funded by the U.S. Environmental Protection Agency, the Wisconsin Department of Natural Resources, and local government agencies and industries. The Institute offers opportunities for graduate assistantships.

Institute for Learning Partnership

The Institute for Learning Partnership is designed to engage UW-Green Bay in support of learning along with the 37 school districts and businesses, civic leaders and parents of Northeast Wisconsin. The partnership was forged to help these organizations and groups work collaboratively to improve learning. Among its goals is developing leadership to support innovative school cultures and structures that integrate teaching, learning and technology for the benefit of student performance and achievement. Under the aegis of the institute, the University offers undergraduate, graduate and professional development programs designed to bring continuity to the discrete stages of a teacher's career.

Institute for Research

The Institute for Research assists faculty members in obtaining support for research. Graduate students working with faculty can learn to develop proposals for funding from federal agencies, private foundations and industry. The Institute has access to the

latest information on funding sources through the Sponsored Program Information Network of New York as well as the Grants Information Office of the University of Wisconsin System.

Laboratories

The University has devoted a significant portion of its resources to developing laboratory facilities to support the natural and social sciences. A number of these labs are devoted mostly to research and include a water analysis laboratory, a waste management resource recovery lab, and a computer-based cartography lab. Available equipment includes gas and liquid chromatographs, GC-MS, spectrophotometers (UV, IR, visible), atomic absorption spectrometer, liquid scintillation apparatus, growth chambers, microscopes and other equipment. Microcomputers are available in ecology and engineering laboratories in the Laboratory Sciences building. Other spaces available for research use include a herbarium and greenhouse. The University also has boats, a four-wheel drive vehicle and a variety of other equipment for field studies.

David A. Cofrin Library

Centrally located among the academic buildings of the campus is the David A. Cofrin Library, which supports the academic program with a collection of more than one million items and computer access to the accumulated knowledge of humankind.

Library holdings include approximately 280,000 books and bound periodicals, subscriptions to 1,400 scholarly journals, magazines, and newspapers, and 30,000 rolls of microfilm backfiles. As a depository for the U.S. government and the State of Wisconsin, the library has acquired extensive holdings of government documents. It also has collections of publications of Canada, the United Nations, and many international organizations. About half of the 850,000 government documents are on microfiche.

Other specialized collections include 57,000 maps, 3,500 sound recordings, 2,100 musical scores, and 5,600 instructional materials for teachers. The Special

Collections Department contains historical records of northeastern Wisconsin, fine print books, rare materials including old maps and manuscripts, and the University archives.

Facilities for student use are varied: quiet study areas, individual and group study rooms, a library instruction room, and general reading and study areas. Students can conduct their research at computer workstations which provide access to the Cofrin Library's online catalog and reserve systems, as well as CD ROM databases, full text electronic newspapers and journals, census data and other resources. These computers give library access to all the UW System libraries and a database of 37 million items held by libraries throughout the world. Students can access Internet resources directly or through selected links available on the Cofrin Library website.

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

Richter Natural History Museum

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

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

The Richter Museum houses more than 90 percent of the North American avian species and subspecies, including endangered

species such as whooping crane, snail kite, and Kirkland's warbler, and several extinct species. The egg collection is North America's 13th largest. In addition to fluid preserved specimens, study skins, and skeletons, the museum has a library of related books, journals, and reprints. Holdings represent nearly 100 percent of the locally breeding bird species, 95 percent of the mammals, 80 percent of the reptiles, amphibians and fishes.

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

Sea Grant Program

UW-Green Bay faculty members participate in the University of Wisconsin Sea Grant College Program. The Green Bay program involves public education and research projects dealing with water quality, fisheries, coastal marshes, and human impact on the Bay of Green Bay and the Great Lakes. Several University boats are available for research.

Wiley Collection

The development of pollution control efforts by the Wisconsin pulpmaking industry is documented in more than 5,000 research reports, articles, and conference proceedings. The collection and accompanying bibliography is housed on the UW-Green Bay campus. It was the gift of Averill Wiley of Appleton, retired technical director of the former Pulp Manufacturers Research League, which merged in 1970 with the Institute of Paper Chemistry. The collection, begun in 1940, focuses on spent liquors of the acid sulphite pulping industry and includes more recent developments in wood chemicals and pulping by-products.

General Information

The information in this section focuses on UW-Green Bay master of science programs. For more information on cooperative programs, turn to the section beginning on page 51.

CREDITS REQUIRED

A minimum of 30-37 credits, depending upon the chosen program, is required for completion of the UW-Green Bay master of science degree.

GRADES

All courses and assigned studies are graded on a 4.0 scale. A cumulative grade point average of at least 3.0 is required to earn the M.S. Thesis credits or internship credits are given an in-progress (PR) grade each semester until the thesis or internship is formally accepted as completed at which time the grade will be changed to pass (P) or no credit (NC). A pass (P) grade must be achieved in order to graduate.

Students are expected to maintain a cumulative grade point average of at least 3.0. Students who fail to maintain this average are subject to probation and or suspension as specified in the Graduate Academic Rules and Regulations.

TIME LIMIT

Matriculated graduate students must complete all requirements for the M.S. degree within five years. This time period begins with the first day of the first term of enrollment with a classification of MSGR. Classification and year designations are described on page 17.

COURSE REQUIREMENTS

The student and his or her graduate committee must develop an individual program plan to satisfy requirements of the student's specific program — Administrative Science, Applied Leadership for Teaching and Learning, or Environmental Science and Policy. An acceptable program plan must include:

1. Graduate core courses
(13 or more credits)
2. Area of emphasis courses

3. Thesis/Professional Project

Each is explained in more detail.

Graduate Core Courses (13 or more credits)

Graduate core courses are the courses numbered at the 700 level (700 through 794, excluding 783). These courses are open only to graduate students.

Area of Emphasis Courses

A typical program plan may also include several different types of specialized courses to gain particular knowledge, skills, and experiences. These may include dual-listed undergraduate/graduate courses, selected upper-level undergraduate courses, independent studies, transfer credits, and internships.

UNDERGRADUATE/GRADUATE COURSES (numbered XXX-500 to XXX-595 and XXX-600 to XXX-695)

Graduate students may register for specific undergraduate courses designated as undergraduate/graduate (UG/G) without submitting an assigned study card. These courses are identified by course numbers at the 500 and 600 levels.

Other undergraduate courses at the 300 and 400 levels may be taken for graduate credit if they contribute to a coherent program of study. An assigned study card must be submitted with registration as XXX-596 or XXX-696 as appropriate.

Academic standards for graduate credit in graduate/undergraduate courses exceed standards for undergraduate credit. Increased standards may be in the form of additional academic work and/or an increase in grading standards.

EXPERIMENTAL COURSES

(numbered 002, 006, 007, or 008-783X)

From time to time, graduate faculty may offer courses in response to special demand, to address current issues, or to make use of special resources offered by visiting faculty. These are offered once on an experimental basis; they may later become regular course offerings. Courses offered with the 783X

number may not be counted as part of the graduate core requirement.

INDEPENDENT STUDY

(numbered 002, 006, 007, or 008-798)
Independent study may be undertaken in the form of reading and research completed under the supervision of a member of the graduate faculty. This type of study can be undertaken only after an approved program plan is filed including the independent study course as an integral part of the individual program. Under normal circumstances, a maximum of six credits of independent study may be applied toward the degree; however, with strong recommendation and a rationale provided by the major professor, additional independent study credits may be allowed. To arrange for independent study courses, students must prepare a proposal that includes a statement of objectives, a list of readings and/or projects to be completed, and a statement of how the work will be evaluated and graded. The proposal is filed in the Graduate Studies Office and will be included in the student's file.

INTERNSHIP

(numbered 002, 006, 007, or 008-797)
An internship, usually undertaken outside of the University setting, must be an experience that provides a genuine training ground for the application of knowledge and understanding relevant to the student's area of study.

Internships must be preplanned and incorporate predetermined criteria for grading. A full description of internship activities, including methods of academic evaluation, must be submitted to the student's major professor and the associate dean of graduate studies. It will be included in the student's file. The internship must be sponsored by a member of the graduate faculty, although day-to-day administration of the experience may be by a non-faculty supervisor. An internship may be required by some graduate tracks. Experience gained in permanent employment cannot normally be counted as an internship. The amount of credit acquired through an internship is

determined by the student's graduate committee, subject to approval by the associate dean of graduate studies. Normal maximum is six credits. The graduate program does not award credit for prior experience. However valid, an internship undertaken prior to enrollment in the program cannot carry credit toward the M.S. degree.

SPECIAL TOPICS

(numbered 002, 006, 007, or 008-795)
From time to time, professors or groups of professors may organize courses seminars, colloquia, field trips, and so on, around some topic of interest or special need. Such courses are not normally intended to become part of the regular curriculum. Courses offered with the 795 number can not be counted as part of the graduate core requirement.

CREDIT FROM OTHER INSTITUTIONS

The specialized study component may also include a maximum of 12 graduate credits earned at other accredited institutions prior to admission to UW-Green Bay. Transfer credit evaluation is the responsibility of the student's graduate faculty committee at the time the student's program plan is approved. These credits are subject to the review of the associate dean of graduate studies and the registrar.

Any additional courses to be taken at other institutions and to be included as credits toward the degree must receive prior approval from the student's major professor and the associate dean of graduate studies.

Thesis/Professional Project

(thesis is 6 credits registered as 002, 007, 008-799; professional project is 3 credits registered as 002-796)

Students must register for a minimum of one credit of thesis during the semester in which the thesis defense is to occur. A student may earn more than six credits for thesis, but only six credits may be applied toward degree requirements.

Students in the Administrative Science program selecting a three-credit Professional

Project must register for an additional three credits of course work.

PROGRESS TOWARD THE DEGREE

Following is a guide to the steps required to earn the M.S. degree in Administrative Science, Applied Leadership for Teaching and Learning, or Environmental Science and Policy, from admission to completion of the program.

Steps Toward the M.S. Degree

1. Applicant is admitted to the graduate program.
2. No later than the semester in which student completes at least six credits, he or she selects major professor and, if possible, graduate committee members. Student submits individual program plan (form GR-1) to Graduate Studies Office.
3. After at least 15 credits, student develops thesis proposal. Proposal is reviewed and approved by the committee and submitted, along with form GR-2, to Graduate Studies Office for approval by associate dean.
4. Student may register for thesis credits and continue work on thesis project.
5. Student files an intent to graduate with the Registrar's Office.
6. Student schedules thesis defense by filing form GR-3 when the project and thesis document are nearly complete.
7. Open thesis defense meeting. Satisfactory completion of thesis and defense indicated by filing form GR-4 with the Graduate Studies Office.
8. Final format of thesis is checked by associate dean.
9. Student submits to Graduate Studies Office the required number of thesis copies for final approval and deposition in University library.
10. Graduate receives diploma.

The following narrative explains the process in detail.

Graduate Committee

It is important to select a thesis committee early. The chair or adviser for the student's chosen program normally assists in this process. A student's individual committee is comprised of at least three faculty members approved by the appropriate program chair. One committee member is requested by the student to act as the major professor or chair. That person must be a graduate faculty member of the student's degree program. Students are encouraged to ask a person from outside the University to join their committees, in addition to the faculty members.

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

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

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

Student Program Plan

The primary responsibility for ensuring that each student's program plan meets the requirements and regulations of the M.S. program rests with the student's graduate committee. The student develops the program plan with his or her committee. If the student has not selected a complete committee, the major professor can approve

and sign the program plan. In the absence of both committee and major professor, the graduate program chair can approve the program plan as the student's adviser.

All program plans are subject to final approval by the graduate program chair and the associate dean of graduate studies. They may suggest changes to ensure that the plan conforms to the overall philosophy and requirements of the M.S. program. The Graduate Studies Office will contact the major professor and student if changes are necessary.

A program plan must be submitted to the Graduate Studies Office in the semester in which the student completes six credits of graduate-level course work. It must be approved before a student can register for additional courses. Subsequent changes may be made, but these are subject to further review by the associate dean of graduate studies. *All changes must be submitted to the Graduate Studies Office so that the student's file remains current.*

Documents substantiating certain course work should accompany the program plan to the associate dean of graduate studies, if appropriate. These may include:

- Documents of transfer credits accepted by the student's committee.
- Petition for changes in graduate program requirements.

In preparing the program plan the student should use the *Guidelines for Completing the Graduate Program Plan* which will be mailed with the admission letter.

Thesis

The thesis project and the formal paper which documents it are distinctive to the UW-Green Bay graduate program. All students complete a thesis project working with their major professor and committee. The project provides an opportunity for graduate students to focus and apply their course work and make a public contribution to knowledge. Successful completion of a thesis is a clear indication of a student's

ability to define, investigate, and solve problems.

THESIS PROPOSAL

The thesis proposal is a formal document which provides an overview of the planned thesis project. It must include an explanation of the research problem, issue, or situation to be addressed, its relevance or application, the methods and resources that will be used in completing the thesis, and a list of references cited.

In preparing the proposal the student should use *Guidelines for Preparing the Thesis Proposal*. A copy of thesis guidelines and a copy of form GR-2 will be mailed to students along with notice of their program plan approval.

After a student has completed 15 credits of course work he or she prepares a thesis proposal. It must be approved by the major professor and committee at a formal meeting. If they approve the proposal, the major professor and committee members sign form GR-2 and forward it, with a copy of the thesis proposal, to the associate dean of graduate studies for final approval.

Also at this time or no later than completion of 21 credits, the student files a request to graduate form with the Registrar's Office listing the earliest possible graduation date.

THESIS REGISTRATION

Only students with a MSGT classification may register for thesis writing credits (799). This classification is assigned to matriculated graduate students following acceptance of an approved graduate program plan and thesis proposal. Enrollment for thesis credits (799) may be for one to six credits per term and may be spread over several terms as appropriate. A student must be registered for a minimum of one thesis credit during the term in which a thesis defense is scheduled.

THESIS PREPARATION

The thesis is a formal document and must be prepared to conform to UW-Green Bay library requirements and graduate program standards. In preparing the thesis, students

should use *Style and Format Requirements for the Master's Thesis*. A copy of thesis guidelines and copies of forms GR-3 and GR-4 will be mailed to students along with notice of thesis proposal approval. It is the student's responsibility to prepare and present the thesis in an acceptable format. Several writers' guides and style manuals are commercially available.

THESIS DEFENSE

The thesis defense is an open event attended by the candidate's graduate committee and anyone else who wishes to attend. The defense permits the committee to ascertain whether the student has adequately understood and seriously attempted to solve a thesis problem.

The student must file form GR-3 to schedule the thesis defense. The form must be filed with the Graduate Studies Office at least one week in advance of the proposed date. The thesis defense should be scheduled during one of the academic terms unless other specific arrangements are acceptable to all parties.

Before attending the thesis defense, the candidate should provide form GR-4 to the major professor. After a satisfactory defense, the major professor and committee members sign the form and return it to the Graduate Studies Office. A dissenting signature must be accompanied by an explanation from the dissenting member. The associate dean of graduate studies may withhold approval of the thesis defense pending resolution of any differences. A candidate is considered to have passed his or her thesis defense only after all issues have been resolved and the completed GR-4 is returned to the Graduate Studies Office.

THESIS DEPOSITION

Upon satisfactory conclusion of the thesis defense and an acceptable graduate summary from the Registrar's Office, the candidate is required to supply two copies of his or her thesis, including two copies of any audio/visual components and one additional copy of a title page and abstract, to

the Graduate Studies Office. After the major professor signs the thesis, the associate dean for graduate studies reviews and signs it or returns the document for revision. Two copies of the final document are forwarded with a binding fee (\$10 per copy at the time of printing of this catalog, but subject to change), collected from the student, to the UW-Green Bay library as a permanent record of the student's scholarly or creative activity. If the candidate wishes, additional copies may be bound at the same per copy fee, payable to UW-Green Bay. Diplomas are not awarded until all these requirements have been met.

COMMENCEMENT

UW-Green Bay holds two commencement ceremonies each year. These are at the end of the fall and spring semesters. For graduation in the fall, a student's defense must be scheduled before December 1 and held before the last day of fall semester classes. For spring, the defense must be scheduled before May 1 and held before the last day of spring semester classes. A request to graduate form must be completed and submitted to the registrar prior to November 1 and April 1, respectively. Students who will complete their work during the summer may participate in the preceding spring ceremony.

DEGREES

The degree awarded will be M.S. in Environmental Science and Policy, M.S. in Applied Leadership for Teaching and Learning, or M.S. in Administrative Science. Students who complete the cooperative programs (with UW-Milwaukee and UW-Oshkosh) will receive their degrees from one of those institutions.

Admission

ADMISSION REQUIREMENTS

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

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

1. A baccalaureate degree from an accredited institution.
2. A 3.0 grade point average (gpa), measured on a 4.0 scale, for the final two years of study. Students from schools not using a grading system will be evaluated on an individual basis.
3. Additional prerequisites for entrance to the specific program chosen.

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

International students must be prepared to submit a minimum score of 550 on the Test of English as a Foreign Language (TOEFL). International student applicants must show official evidence of financial resources adequate to provide for their educational expenses.

APPLICATION

Application forms are available on campus at the Graduate Studies Office. Forms will be mailed in response to telephone requests to 920-465-2123. Written requests may be directed to: Graduate Studies Office, University of Wisconsin-Green Bay, 2420 Nicolet Dr., Green Bay, Wisconsin 54311-7001. Send e-mail requests to gradstu@uwgb.edu.

Required documents are:

1. The application, completed in full.
2. A 200-300 word statement describing principal areas of academic interest, capabilities, experience, and reasons for pursuing the M.S. degree.
3. Official undergraduate and graduate transcripts from each previous college or university attended, sent directly to UW-Green Bay from these institutions.
4. Three letters of recommendation from persons who can assess the prospective student's academic potential.
5. Graduate Record Examination (GRE) general test or Graduate Management Admissions Test (GMAT) scores less than five years old. Consult the appropriate program description in this catalog. Scores will be used in conjunction with the required materials to better assess preparation.

Under requirements of the Buckley Amendment to the Family Educational Rights and Privacy Act of 1974, student files are open to their inspection except for letters of recommendation for which the right of inspection has been waived.

Other supporting documentation such as personal records of professional or community achievement may also be submitted.

DEADLINES

Application, transcripts, letters of recommendation, and any test scores required for entry into the M.S. degree program should be submitted as early as possible in the semester preceding the desired beginning semester. Because of campus enrollment caps and possible program capacity limitations, priority is given to completed applications received before April 1 for the fall semester and November 1 for the spring semester. Complete applications received by July 1 for the fall semester and by December 1 for the spring semester will be processed as time and space permit. A complete application includes the forms and all supporting documentation listed above. Students not meeting these deadlines may be able to take

courses as graduate special students and apply to the degree program for the following semester.

FEE

A non-refundable application fee of \$45 is required of all students who apply for admission to the graduate program of the University of Wisconsin-Green Bay or any other graduate school within the University of Wisconsin System. The \$45 fee does not apply to students who wish to be admitted as special students (i.e., non-degree students).

UW-Green Bay maintains records for two years for students who are admitted to the program but who do not enroll for classes. The application fee is valid for one year from the start of the initial semester on the application. Students who begin enrollment after a year elapses must pay another \$45 fee and bring their applications up-to-date. Students who delay enrollment beyond two years must reapply for admission and pay another \$45 application fee.

ADMISSION PROCESS

The admission process is initiated by submitting the completed application form to the UW-Green Bay Admissions Office. The office notifies applicants whose files are incomplete. When the file is complete, transcripts of previous undergraduate work and any graduate courses are examined by the Registrar's Office. Factors affecting either admission to the graduate program or acceptance of transfer credits are noted.

The file is forwarded to the Graduate Studies Office where the associate dean of graduate studies, on the advice of the Admissions Committee for the program specified on the admissions form, either admits the applicant to the graduate program and area of emphasis, or provisionally admits the applicant, or denies admission.

If an applicant is denied admission, reasons for the denial are provided along with an explanation of available options. Students denied admission may request reconsidera-

tion by writing to the associate dean of graduate studies. The request should include a rationale for reconsideration. Applicants who have been denied admission may reapply after the lapse of one semester.

LETTER OF ADMISSION

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

Student Number

The permanent student number of each applicant is the Social Security number or, if this is not provided, a University-assigned identification number.

Classification and Year

Each student's status is designated by one of these abbreviations:

MSAGR, MSEGR, MSLGR

First semester M.S. student without approved program plan.

MSAGP, MSEGP, MSLGP

M.S. student with approved program plan. A degree seeking student may not register for classes after six completed credits without an approved program plan.

MSAGT, MSEGT, MSLGT

M.S. student with approved program plan and approved thesis proposal. A student may not register for thesis credits without the MSCGT classification.

GSP

Graduate special student. This classification indicates that course work is being taken for graduate credit; however, the student is not participating in the UW-Green Bay degree program. A graduate special student who decides to pursue a UW-Green Bay graduate degree must submit an application form to enter the degree program. Often the credits earned as a graduate special student may be applied toward the M.S. degree; however, this is not guaranteed.

ADMISSION WITH ADVANCED STANDING

All graduate course work completed at UW-Green Bay or at other graduate schools prior to admission to the M.S. degree program is evaluated by the student's graduate faculty committee when a student's program plan is prepared. The total number of credits earned prior to matriculation into the degree program either at other institutions or as a graduate special student (GSP classification) at UW-Green Bay cannot exceed 15 credits. Of the 15, a maximum of 12 credits may be accepted from other institutions.

SPECIAL STUDENTS

Persons holding baccalaureate degrees or higher who wish to enroll in courses at UW-Green Bay but who do not wish to pursue a graduate degree may enroll as special students. Graduate credit will be awarded provided the student registers in graduate-level courses as a graduate special student (GSP classification) and pays graduate fees. Credits for which neither graduate fees were paid nor graduate credit awarded cannot be retroactively converted to graduate credits.

TRANSFER CREDIT POLICY

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

- A maximum of 12 semester credits of graduate work may be accepted as transfer credits.
- A letter grade of A or B must be earned in each course transferred.
- The courses must contribute to a coherent program of study.

- The institution granting the credit must be regionally accredited at the master's degree level.
- The credits must be reasonably recent, usually earned within the five years prior to admission.
- Credits earned through extension courses offered or sponsored by universities outside of the state of Wisconsin will be subject to particular scrutiny.
- Credits earned under conditions that make them unacceptable toward a degree at the institution where the credits were earned will not be accepted by UW-Green Bay.

USE OF SPECIAL PETITION

Requirements sometimes may be modified or adapted to take into account a student's special educational or program needs. A request to waive or modify a graduate program academic requirement is submitted to the associate dean for graduate studies on a special petition form. The forms are available at the Academic Advising Office or the Graduate Studies Office. If a change in a program requirement is being requested, the petition should include a statement from the major professor or graduate committee and the graduate program chair explaining the change.

ACTIVE/INACTIVE STATUS

Matriculated students who do not enroll for four or more consecutive semesters without notifying the Graduate Studies Office by filing a request to leave, are considered inactive. They must be formally readmitted before they can re-enroll in classes. Inactive students who must reapply must meet admission standards in effect at the time of readmission and are expected to meet degree requirements in effect at that time as well. The \$45 application fee does not apply to students seeking readmission after a period of inactivity.

TUITION AND FEES

Costs

Tuition and fees for full-time graduate study (9 credits or more) for the 1998-99 academic year were \$1,887 per semester for residents of Wisconsin and \$5,709 per semester for non-residents. Part-time students were assessed a fee of \$211.25 per credit for residents of Wisconsin and \$636.25 for non-residents. Fees and tuition are subject to change by action of the University of Wisconsin Board of Regents and the Wisconsin Legislature. The actual costs for each academic year are announced in advance in the *Timetable* or on separate fee information sheets, and are available on request from the Registrar's Office. The *Timetable* is also available on the UW-Green Bay website, www.uwgb.edu.

Reciprocity

Minnesota and Wisconsin have a reciprocity agreement. Minnesota students may pay in-state Minnesota tuition and fees to attend public universities in Wisconsin. Students must apply directly to the Minnesota Higher Education Coordinating Commission, Suite 901, Capitol Square, 550 Cedar Street, St. Paul, MN 55101.

Non-Resident Tuition Waivers

A limited number of non-resident tuition waivers are available on a competitive basis to recipients of graduate assistantships. Recipients of waivers are responsible for resident fees.

Other Financial Aid

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

GRADUATE ASSISTANTSHIPS

Graduate assistantships are available on a competitive basis. Graduate assistantships

carried a stipend of \$8,467.50 in 1998-99. Students receiving assistantships are expected to devote approximately 20 hours per week performing assigned duties. Typical duties are serving as a classroom assistant in a laboratory or discussion section, assisting in a center or institute, or serving as a research assistant.

To be eligible for graduate assistantships students must:

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

Applications for graduate assistantships should be filed as early as possible but no later than March 1 for the following September. Applications received after this date or at other times of the year will be considered for unfilled assistantships or possible assistantships funded from grant monies. Persons who wish information on availability of assistantships should inquire at the Graduate Studies Office.

UW-Green Bay Master of Science in Administrative Science

The University of Wisconsin-Green Bay's Administrative Science program prepares its graduates for positions in management, policy making, policy analysis and planning, and quality control for business, government and nonprofit organizations. The program's core focuses on studying organizational and administrative processes and problems, and in devising solutions to these problems. The program offers areas of emphasis in Quality Management and Systems Design, Project Management, Nonprofit Management, and Public Management and Policy.

The program helps bright, competent individuals, many with significant employment experience, develop the skills and knowledge necessary to become highly skilled and successful practitioners with leadership capabilities to bridge soft and hard technologies, to evaluate organizational processes, and plan and implement effective changes.

The program's approach is to combine classroom instruction with applied research in real organizations. For example, mid-career students are able to conduct studies as participant observers in the organizations in which they are employed. Full-time students who are recent college graduates are encouraged to seek "hands-on" internship work experience. Virtually all thesis and professional project work focuses on organizational and administrative problems that integrate classroom course work with employment and internship experience.

Administrative Science is not a business program. It does not require or offer courses that are central to an MBA such as marketing or accounting. Nor is the program a substitute for a graduate degree in public administration. The program graduates people who are best qualified to serve in senior staff positions—not line positions—in private, public, and nonprofit organizations.

The program is unique in its interdisciplinary focus on organizations. Intellectually, Administrative Science draws from the fields

of industrial and organizational psychology, engineering, systems and decision sciences, social and natural sciences, mathematics, business, and public administration. The Administrative Science graduate faculty also teach in a variety of interdisciplinary undergraduate programs and have strong professional ties to organizations outside the University. In this way it is able to build on the University of Wisconsin-Green Bay's undergraduate program which is recognized nationally for its strong problem-focused interdisciplinary programs.

The Administrative Science program will meet the needs of:

- professional employees of business and industry, government agencies, and nonprofit organizations who want to hone analytical skills and stay abreast of rapidly growing knowledge in management and quality processes, policy analysis and planning, or system design and decision making for career advancement and professional development;
- recent college graduates in the social or natural sciences, engineering, liberal arts, or other fields who desire administrative, managerial, planning, or policy analyst positions at a professional level; and
- individuals who intend to pursue doctoral studies in public administration, business, policy analysis, and who wish additional preparation beyond the baccalaureate level before beginning doctoral studies.

The program fits the needs of both part-time and full-time students. Many graduate students work full time, live within commuting distance of the campus, and prefer to pursue their graduate studies on a part-time basis. Most courses are offered once weekly in the evening. Some are offered over the Internet, in an intensive semester format and over several Saturdays during the semester. Full-time students benefit from involvement with a community of students, from a wide variety of university activities, and from close working relationships with faculty. Fully prepared full-time students find that it typically takes two

years to complete the program. Part-time students are encouraged to complete the program within five years or fewer, depending on the pace they take in completing course work and thesis or professional project.

Students like the small class sizes and opportunities to work closely with faculty. The program's faculty has extensive involvement and experience with public, private, and nonprofit organizations, in addition to its notable academic achievements. A recent survey of graduates indicates that their positions and incomes improved significantly after they completed their degrees in Administrative Science. About one-third are now employed throughout the United States and two-thirds are working in Wisconsin.

Areas of Emphasis

In addition to a required common core of courses, the Administrative Science program offers students the opportunity for specialization in an area of emphasis: Quality Management and Systems Design, Project Management, Nonprofit Management, or Public Management and Policy. Each area of emphasis is designed to develop a different set of skills that prepare the student for a particular career track.

Students are required to take five courses (15 to 16 credits) in an area of emphasis. Each area has core courses as well as electives. Students can also take independent study and an internship. In independent study, the student works with an interested faculty member to explore a subject not treated in the curriculum. Internships with organizations in the surrounding area are especially valuable for full-time students who wish to explore different careers or gain valuable workplace experience. This provides them with a practical work experience which enhances their academic learning and enriches their classroom discussions with peers, many of whom work full time.

Quality Management and Systems Design

The emphasis in Quality Management and Systems Design is for students seeking

management careers in private, public, or nonprofit organizations.

Management philosophy, theory, and practice continue to evolve at a rapid pace. This course of study links traditional management approaches with the emerging methods designed to improve effectiveness and efficiency in organizations that produce products and deliver services.

In response to rapid technological change, global electronic communication, increased competitiveness, and a world economy, both public and private organizations must be dynamic and flexible to survive. Traditional mechanistic views of organizations and management are being replaced by a systems perspective. Embedded in the systems perspective are the relational demands associated with people, communication, collaboration, information, organizational knowledge, and change. The theory and practice in these fields are addressed in the courses Systems and Process Design, Organizational Assessment and Development, New Management Paradigms, Organizational Communication and Conflict, Project Management, Planning and Modeling, and Human Resource Management.

Project Management

The emphasis in Project Management provides students with the background and skills needed to effectively manage projects that vary in scope and complexity, such as government projects, construction engineering, or new product development.

Much of the knowledge needed to manage projects, such as critical path analysis and work breakdown structures, are studied and applied through a two-course sequence in Project Management. Students are encouraged to work on real projects and develop and apply project management knowledge in scope, time, cost, quality, human resource, communication, risk, and procurement. Students learn how to integrate these knowledge areas in the pursuit of project goals and objectives.

The goal of the Project Management

emphasis is to prepare students with a professional competence to define, plan, organize, implement, manage, and complete a project under real time and budgetary constraints and performance standards. Students have some flexibility in course selections such as Management Information Systems, Cost Benefit Analysis, Planning and Modeling. They may development an independent study on a topic of interest or take part in an internship with an organization in Northeast Wisconsin.

Nonprofit Management

One of the most dynamic and fast growing sectors of the American economy is the not-for-profit, or third sector. This includes organizations which organize and manage the collective interests of professions, such as the American Bar Association and Interior Design Society; business interests like the U.S. Chamber of Commerce and National Federation of Independent Business; service organizations like The American Association of Retired Persons and YMCA of the USA; and voluntary and charitable organizations like the United Way and Volunteers of America. Seven out of ten adult Americans belong to at least one of the more than 23,000 national associations or more than 64,000 regional, state and local associations. These associations employ over 260,000 people full time, 35,000 part time, and countless more as volunteers.

The Nonprofit Management area of emphasis prepares students for management careers in the third sector. Specialized courses such as Fund Development for Nonprofit Organizations and The Third Sector, and internships with third sector organizations, provide students with both a theoretical understanding and practical experience with the management issues unique to not-for-profit organizations.

Students learn what these organizations do; their organizational structures; fiscal issues; their services, activities and products; why members join; knowledge and managerial skills required of leadership; internal and external relationships; and programs and

services. In addition, students can take courses to develop skills in analyzing public policy issues, evaluating programs, managing personnel, and working effectively in the new electronic world and virtual office of the Internet.

Revolutionary changes in the structures and functioning of organizations can be studied in the course New Management Paradigms, and strategies to deal with establishing and maintaining coherent and responsive communications within an organization is the subject of the course Organizational Communication and Conflict.

Public Management and Policy

The Public Management and Policy area of emphasis is for students who wish to prepare for management positions in the public sector or as researchers and policy analysts with government, public interest groups, nonprofit organizations, think tanks and foundations. The emphasis is also suitable as preparation for further graduate studies leading to a doctoral degree.

Along with the required area of emphasis courses in Public Policy Analysis and Program Evaluation, students interested in a managerial career might take courses in Management Information Systems, Human Resource Management, and Regulatory Policy and Administration. Students with an interest in policy can choose from courses in Environmental Policy and Administration, Urban Politics and Policy, Intergovernmental Relations, Administrative Law, Environmental Law, Public Finance and Fiscal Policy, and Cost Benefit Analysis. Every student develops his or her academic plan, the course study, in consultation with a member of the graduate faculty and graduate program adviser.

ADMISSION REQUIREMENTS

Students who are prepared adequately when they enter the program may earn the degree by satisfactorily completing 31 or 32 credits of course work, independent study, internship, and a six-credit thesis or three-credit professional project. Students

who lack appropriate prerequisites or technical knowledge will have additional requirements.

A faculty committee evaluates each student's prior academic and work experience when she or he enters the program. All students must have a baccalaureate degree or equivalent and are expected to have knowledge equivalent to that obtained in undergraduate courses appropriate to their selected major and minor. Students are expected to have knowledge equivalent to that obtained in undergraduate courses in government, political science, mathematics, statistics, and economics. They are expected to have college-level writing, oral communication, and computer skills. Lack of appropriate background may be remedied by taking undergraduate courses (such courses do not count as part of the master's degree program) or by demonstrating competency in the subject area. If a student has not had a course in statistics, the student will be required to take a basic course in statistics such as 255-205 Social Science Statistics, 600-260 Introductory Statistics, or 216-215 Introduction to Business Statistics.

Each of the four areas of emphasis requires somewhat different skills and backgrounds, so that prerequisites in undergraduate course work and work experience will vary. For example, students with an undergraduate major and work experience in business would be well prepared for the emphasis in Quality Management and Systems Design. Students with a background in public administration or political science, and seeking a career in public service, would be prepared for the emphasis in Public Management and Policy. Another prerequisite to succeeding is being goal directed and highly motivated for career advancement or change. In this case, an engineer or public employee seeking to make a significant advance would understand the importance of acquiring more specialized professional competence in project management or quality management to go along with leadership, problem solving, and organizational management skills. Students will work with an

adviser to learn whether deficiencies exist and how to remedy them. All deficiencies must be remedied early in the student's graduate studies.

Students who show exceptional promise, but who lack appropriate background in some areas, may be admitted provisionally. They may need to take relevant undergraduate courses or demonstrate competency in those areas to the appropriate faculty. Undergraduate courses taken to gain such skills and knowledge do not count as part of the master's degree program.

Students who have been out of college for a number of years and in the work force may have developed skills that they did not obtain as college students but are considered appropriate for an Administrative Science degree. Thus, a student might satisfy graduate course and program prerequisites in consultation with program faculty who would review work experience with the student.

All applicants to the Administrative Science graduate program are required to take GMAT or GRE exams and submit scores when they apply for admission.

DEGREE REQUIREMENTS

The requirements for the Master of Science in Administrative Science consist of successfully completing at least 31 credits of approved course work, independent study, and/or internship, and a six-credit thesis or professional project. If a student chooses to do a three-credit professional project instead of the six-credit thesis, she or he will be required to take three credits of course work on a topic related to the project. Students must maintain at least a B average to remain in the program and to graduate. A grade of C or better is required for course work to be counted toward graduation.

Administrative Science students share a common 16-credit core that should be completed before the student engages in significant additional study. The core consists of six courses: a one-credit introduction to the program, three courses in organizational

management and processes, one course in budgeting and finance, and one in research methods. Each student also selects an area of emphasis consisting of 15 to 16 credits of course work. Students must file a Graduate Program Plan in the semester in which six graduate credits are completed. An adviser must be consulted prior to filing the academic plan.

Both the thesis and professional project require students to conduct original research, apply theoretical constructs to explore or solve organizational problems or test hypotheses with empirical data.

Students who choose to write a thesis will work with a committee of three professors and more closely with the major professor. The thesis process involves writing a proposal which is reviewed and approved by the thesis committee, writing, and defending the thesis before the committee. The role of the thesis committee and major professor is to provide guidance, deal with unanticipated issues, help solve problems, and ensure that the completed thesis meets acceptable graduate-level academic standards.

Under the professional project, the student will work with a major professor to research and write a professional paper which demonstrates an application of organizational or related theory to a practical organizational problem. While the professional paper may be more applied than a thesis, it must meet the same academic standards as the thesis. An example of the quality of work expected of the professional project is a paper acceptable for publication by an academic or professional journal, or conference presentation. Work on the professional paper is complete after it is read and evaluated as acceptable by two other professors.

Program requirements change from time to time. New graduate courses are added and others are dropped. This catalog describes the program requirements at the time of publication. Consult an adviser for any changes since publication.

Core Courses, 16 credits

The core consists of six courses: Introduction to Organizational Management; three courses on management and organizational process – Organizational Theory and Behavior, Problem Solving and Decision Making, and Managerial Leadership; Budgeting and Finance; and a course on research methods.

Required Core Courses:

- 002-701 Introduction to Organizational Management, 1 credit
- 002-715 Budgeting and Finance, 3 credits
- 002-750 Problem Solving and Decision Making, 3 credits
- 002-753 Organizational Theory and Behavior, 3 credits
- 002-757 Managerial Leadership, 3 credits
- 002-760 Social Research Methods, 3 credits

Advanced Professional Applications, 3-6 credits

All students must demonstrate professional competence by successfully completing a 6-credit thesis or a 3-credit professional project. **Selection of a professional project requires 3 additional credits of regular course work, internship, or independent study.** With a professional project, students must prepare and defend a research paper or report in their area of emphasis that demonstrates their ability to integrate and apply material from their course work at a professional level.

- 002-796 Professional Project, 3 credits
- OR
- 002-799 Thesis, 6 credits

Areas of Emphasis, 15-16 credits

In addition to the general core requirements outlined above, each student selects an area of emphasis from Quality Management and Systems Design, Project Management, Nonprofit Management, or Public Management and Policy. An additional option is to develop a "personal program of

study" more fitting to the career goals of the student. Area of emphasis courses must total at least 15 credits unduplicated by the program core.

QUALITY MANAGEMENT AND SYSTEMS DESIGN, 15-16 CREDITS

Students should meet with the program chair or adviser to select courses in the area of emphasis and complete the Program Plan.

- 002-720 Project Management I, 3 credits
- 002-740 Human Resource Management, 3 credits
- 002-741 Survey and Field Research, 3 credits
- 002-745 Management Information Systems, 3 credits
- 002-755 Systems and Process Design, 3 credits
- 002-768 Planning and Modeling, 3 credits
- 002-770 Organizational Assessment and Development, 3 credits
- 002-775 New Management Paradigms, 3 credits
- 002-776 Organizational Communication and Conflict, 3 credits
- 002-781 Statistical Process Control, 4 credits
- 002-797 Internship, 1-6 credits
- 002-798 Independent Study, 1-3 credits

PROJECT MANAGEMENT, 15 CREDITS

Students should meet with the program chair or adviser to select courses in the area of emphasis and complete the Program Plan.

- 002-720 Project Management I, 3 credits
- 002-722 Project Management II, 3 credits
- 002-740 Human Resource Management, 3 credits
- 002-745 Management Information Systems, 3 credits
- 002-755 Systems and Process Design, 3 credits
- 002-765 Program Evaluation, 3 credits

- 002-768 Planning and Modeling, 3 credits
- 002-797 Internship, 1-6 credits
- 002-798 Independent Study, 1-3 credits
- 835-653 Cost Benefit Analysis, 3 credits

NONPROFIT MANAGEMENT, 15 CREDITS

Students should meet with the program chair or adviser to select courses in the area of emphasis and complete the Program Plan.

- 002-708 Public Policy Analysis, 3 credit
- 002-730 The Third Sector, 2 credits
- 002-732 Fund Development for Non-profit Organizations, 1 credit
- 002-740 Human Resource Management, 3 credits
- 002-745 Management Information Systems, 3 credits
- 002-765 Program Evaluation, 3 credits
- 002-775 New Management Paradigms, 3 credits
- 002-776 Organizational Communication and Conflict, 3 credits
- 002-797 Internship, 1-6 credits
- 002-798 Independent Study, 1-3 credits
- 835-651 Advanced Policy Analysis, 3 credits

PUBLIC MANAGEMENT AND POLICY, 15 CREDITS

Students should meet with the program chair or adviser to select courses in the area of emphasis and complete the Program Plan.

Take the following two courses:

- 002-708 Public Policy Analysis, 3 credits
- 002-765 Program Evaluation, 3 credits

Take three of the following courses after consulting with your adviser:

- 002-740 Human Resource Management, 3 credits
- 002-745 Management Information Systems, 3 credits
- 002-768 Planning and Modeling, 3 credits
- 008-752 Environmental Policy and Administration, 3 credits

- 778-505 Urban Politics and Policy, 3 credits
778-610 Intergovernmental Relations, 3 credits
835-506 Regulatory Policy and Administration, 3 credits
835-514 Administrative Law, 3 credits
835-578 Environmental Law, 3 credits
835-609 Public Finance and Fiscal Policy, 3 credits
835-651 Advanced Policy Analysis, 3 credits
835-653 Cost Benefit Analysis, 3 credits
002-797 Internship, 1-6 credits
002-798 Independent Study, 1-3 credits

FACULTY

Alesch, Daniel J., Professor, Public and Environmental Affairs (Political Science). B.S. (1962), M.S. (1964) UW-Madison; M.A. (1969), Ph.D. (1970) UC-Los Angeles.

Fields of interest: decision theory and methods; policy analysis; planning theory and methods; administrative theory and behavior; public and nonprofit management. Current research: methods for reducing the effects of natural hazard events on business.

Holly, James N., Lecturer, Administrative Science. B.S. (1960) U.S. Air Force Academy; B.S. (1971), M. Engr. (1977), M.B.A. (1981) Florida Atlantic University; Ph.D. (1983) University of Illinois at Champaign-Urbana.

Fields of interest: total quality management, organizational communication, business communication, conflict management, project management. Current research: business startup, crises management, and organizational processes; communication, planning, learning, continuous improvement, and collaboration.

Jowett, David, Professor, Natural and Applied Sciences (Statistics). B.Sc. (1956) University College of North Wales; Ph.D. (1959) Wales.

Fields of interest: statistics, statistical

computing, design of experiments, multivariate analysis, systems analysis, process control and quality control.

Littig, David M., Associate Professor, Public and Environmental Affairs (Political Science) and Program Coordinator, Graduate Program in Administrative Science. B.A. (1960) Indiana University; M.A. (1962), Ph.D. (1974) UW-Madison.

Fields of interest: electoral politics, political behavior, federalism and intergovernmental relations, urban politics and policy, urban transportation policy, and European politics. Current research: urban transportation planning and management, the legal profession.

Warner, Lora, Lecturer, Public and Environmental Affairs. B.S. (1982) Hope College; M.Ed. (1984) University of Virginia; Ph.D. (1987) Virginia Commonwealth University.

Fields of interest: health care policy, health care management, program evaluation, leadership and change management. Current research: needs assessment for family preservation and support, changes in health care markets and delivery systems.

Wilson-Doenges, Georjeanna J., Assistant Professor, Urban and Regional Studies (Psychology). B.A. (1988) Boston University; M.A. (1992), Ph.D. (1995) UC-Irvine.

Fields of interest: social ecology, the design of communities in promoting a sense of community and reducing fear of crime; research design and data analysis, especially survey design and presentation of data.

COURSE DESCRIPTIONS

In the course descriptions in this catalog, commonly used abbreviations include:

cr	credits
P	prerequisite course or experience
Rec	recommended course or experience
gr st	graduate standing
fr	freshman
soph	sophomore
jr	junior
sr	senior
cons inst	consent of instructor

Graduate-Only Courses (700 Level)

002-701 Introduction to Organizational Management 1 cr.

This course provides an overview to the program and focuses on the significance of organizations and their management. Topics include diverse analytical perspectives on organizations, applications of management theories to practice, and student applications. P: gr st. *(fall)*

002-708 Public Policy Analysis 3 cr.

Public policy analysis methods and their use in the policy-making process, primarily in American government. Topics include approaches to the study of public policy, policy formulation, methods for assessment of policy alternatives, ethics and policy analysis, policy implementation and evaluation, and the utilization of policy analysis in decision-making. P: gr st. *(fall)*

002-715 Budgeting and Finance 3 cr.

Budgeting, cost analysis and cost modeling, cost effectiveness analysis, income and expense modeling, financial control systems and organizational finance applicable to government, not-for-profit organizations, and private sector managers. P: gr st.

002-720 Project Management I 3 cr.

Addresses methods for initiating and

managing projects of various size and complexity. Develops management techniques and basics to develop, plan, implement, and complete a project. Software exercises, case studies, experiential exercises, and applications. P: gr st.

002-722 Project Management II 3 cr.

Integration of a project — the processes required to ensure that the various elements of a project are successfully integrated. Project plan execution and change. Topics include project scope management, time management, quality management, project team management, proposal development, and others. P: 002-720.

002-730 The Third Sector 2 cr.

Growth and scope of the private nonprofit sector; tax status as 501(c)(3) and relation to private sector and government; and its organization and management, such as role of boards, volunteers and personnel policy, marketing, financial management, managing information, and planning. P: gr st.

002-732 Fund Development for Non-profit Organizations 1 cr.

Course provides comprehensive overview on ways to ensure an organization's financial stability and growth. Topics include resource development as a critical management strategy, resource development options, and numerous approaches to fundraising — individual contributors, corporate philanthropy, foundations, and government. P: gr st.

002-740 Human Resource Management 3 cr.

Job analysis, recruitment, selection, development, compensation, retention, evaluation and promotion of personnel within an organization. Also deals with labor relations and laws related to EEO and their implications for HRM. P: gr st.

002-741 Survey and Field Research 3 cr.

Theoretical background and methodological skills necessary to use field methods and conduct survey research. Topics include: methods of field research, survey research and sampling design, and application of multivariate data analysis to survey data.

Emphasis is on applied experience in the analysis of quantitative and qualitative data generated by different research methodologies. P: MSAGR; undergraduate statistics. (*intersession, summer*)

002-745 Management Information Systems 3 cr.

Development and role of information systems and technology, strategic role of information systems, organizations and information systems, computers and information processing, software, databases, telecommunications, the internet, building and managing information systems, and ethical issues. P: gr st.

002-750 Problem Solving and Decision Making 3 cr.

Examines normative and behavioral models of group decision making, the process and consequences associated with alternative decision making styles and systems, and develops skill in the use of major decision-making tools. Case studies and examples from fields of nonprofit management, public administration, and business management. P: gr st.

002-753 Organizational Theory and Behavior 3 cr.

The major theories and schools of thought dealing with administrative behavior, administrative process, and organizational behavior and theory. Attention is given to the similarities and differences between public, private and nonprofit administration. P: gr st. (*fall*)

002-755 Systems and Process Design 3 cr.

Design of organizational processes and systems. Includes advanced organizational theory, technostructural change, integrating behavioral and technical systems, design criteria and performance characteristics, design of interorganizational systems and emerging models. P: gr st., 002-753. Rec: 002-770. (*fall*)

002-757 Managerial Leadership 3 cr.

Advanced concepts and methods of managing complex organizations and multi-organizational systems in the public, nonprofit, and private sectors using a variety of

learning methods. P: gr st. (*spring*)

002-760 Social Research Methods 3 cr.

Theory and methods of research in the social sciences. Topics include the philosophy of science, research designs, data collection and program evaluation. Emphasis is on applied research. P: gr st. (*fall*)

002-765 Program Evaluation 3 cr.

An introduction to evaluation research, emphasizing such issues as identifying program goals, choosing outcome measures, defining appropriate samples, data collection strategies, and evaluation and disseminating results. Political, administrative, and ethical problems of evaluation are considered. Much of the class is used to develop and discuss model evaluation studies. P: gr st. (*spring*)

002-768 Planning and Modeling 3 cr.

Theory and methods of planning and analysis for complex systems. Modeling systems and evaluating alternatives. Practical applications linking planning with policy analysis, decision making, and resource allocation. Creating robust plans given ambiguity and uncertainty, deciding upon effective planning strategies. Rec: 002-750.

002-770 Organizational Assessment and Development 3 cr.

Assessment and diagnosis of organizations for the purpose of planned change and development. Students will learn assessment techniques and analytical methods, how to link assessment to development, types of development programs and program evaluation. Specific topics include systems theory, applied statistics, group dynamics, and research design. P: gr st. (*spring*)

002-775 New Management Paradigms 3 cr.

Theoretical and philosophical foundations on new management paradigms. The course develops practical skills for applying knowledge of continuous improvement processes. P: gr st. (*fall*)

002-776 Organizational Communication and Conflict 3 cr.

Principals and processes used by individuals, groups, and organizations to deal with

contention and diversity in dynamic work environments. Theoretical foundations and applied communication techniques for implementing and sustaining organizational change, manage and resolve conflict, improve work and business processes. Case studies and models are studied and developed as part of the class. P: gr st. (spring)

002-781 Statistical Process Control 4 cr.
An application of statistical analysis in industrial quality control. Builds on basic probability and statistical principles, and develops the significance of the statistical approach to quality. Topics include basic statistics, discrete and continuous probability distributions, control and CUSUM charts, experimentations, factorial experiments, fractional factorials, and Taguchi approach to quality. P: gr st. and Introductory Statistics or cons inst. (fall)

002-783X Experimental Courses 1-3 cr.
This number designates courses and seminars offered by graduate faculty in response to special demand or on an experimental basis. Topics may be chosen to address current issues of general concern, special interests of student groups or faculty members, or special resources of visiting faculty. The title of the experimental course as announced in the *Timetable* will appear on transcripts of the students who enroll. Credits earned in the 783X courses may not be applied toward the graduate core requirement. P: gr st. (fall, spring, intersession, or summer)

002-795 Special Topics 1-3 cr.
Courses provided under the special topics designation are generally offered in response to special needs. These courses may be offered more than once but are not intended to become a regular part of the graduate curriculum. The title of the specific topic is announced in the *Timetable* and entered on the transcripts of students who enroll. It may be repeated once with a change in topic for degree credit, but it may not be applied toward graduate core requirements. Recent special topic courses include Health Care Administration in the '90s and Project Management. P: gr st. (fall,

spring, intersession, or summer)

002-796 Professional Project 3 cr.
Research and writing of a professional paper for submission to a journal or presentation at a professional conference. Students work with a professor and submit completed work to a panel of three professors for review and assessment. In preparation for writing the paper, students are required to take an additional three preparatory credits on the topic of the paper either from courses in the curriculum, independent study or internship. P: MSAGT (fall, spring, summer)

002-797 Internship 1-6 cr.
Supervised work experience in an appropriate organization, business, program or agency. Students may enroll for internship credits only when such activity is included in the approved program plan. A description of activities including criteria for grading must be submitted to the student's major professor and director of graduate studies. P: MSAGP. (fall, spring, summer)

002-798 Independent Study 1-3 cr.
Reading and research under the supervision of a member of the graduate faculty. Independent study credits may only be earned when this activity is included as part of an approved program plan. P: MSGP. (fall, spring, summer)

002-799 Thesis 1-6 cr.
Research, preparation and defense of thesis. Enrollment may be for 1-6 credits per term. Students must include 6 thesis credits in their program plan. Although additional thesis credits may be earned, a maximum of 6 credits can be applied toward a degree. Student must be enrolled for at least 1 thesis credit during the semester when the thesis is defended. P: MSAGT. (fall, spring, summer)

008-752 Environmental Policy and Administration 3 cr.
The political and institutional aspects of environmental policy-making and implementation, including issues in environmental policy analysis. Emphasis is on national policy processes in the United States, but attention is given also to global and state

and local environmental problems and public policy. P: gr st. (*spring*)

**Undergraduate/Graduate Courses
(500-699 Level)**

778-505 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.

**778-610 Intergovernmental Relations
3 cr.**

The relations among the federal, state, and local units of government of the United States, federalism, intergovernmental revenues and expenditures, intergovernmental programs, polices and grants-in-aid. (*fall*)

**835-506 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, decision-making in such areas as economic regulation, public health, consumer protection, workplace safety, and environmental quality. (*spring*)

835-514 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.

835-578 Environmental Law 3 cr.

An overview of major environmental laws, including their historical development, structure and implementation by federal, state, and local agencies. (*fall and summer*)

**835-609 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.

835-651 Advanced Policy Analysis 3 cr.
Normative models for policy analysis, including decision trees, cohort survival, queueing, Markov processes, and regression. Application of descriptive statistics, systems theory for understanding systems and alternatives. Evaluation methods.

835-653 Cost-Benefit Analysis 3 cr.
An introduction to the purposes of cost-benefit analysis, its basis in economics, its strengths and weaknesses, and its application to decision making in a variety of public policy contexts. (*fall, even years*)

**Undergraduate Courses
(300-400 Level)**

Graduate credit for undergraduate courses with 300 or 400 level numbers is available only with special permission of the instructor and the student's graduate adviser or the associate dean of graduate studies. An assigned study card is required for registration in one of these courses, under either the XXX-596 or XXX-696 number.

UW-Green Bay Master of Science in **Applied Leadership for Teaching and Learning**

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

This 30-credit program, which can be completed within two calendar years, includes a 21-credit core requirement as well as a nine-credit area of emphasis. As part of the core requirement, degree candidates will be required to conduct a classroom-based inquiry project (thesis). Areas of emphasis currently available include Adaptive Education and Curriculum and Instruction. Additional areas of emphasis are under development. The core curriculum is based on the National Board of Professional Teaching Standards (NBPTS). The standards that undergird this program are the following:

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

*NBPTS standards

The Applied Leadership degree is unique in many respects. It is a truly advanced degree

program that does not include teacher certification. It recognizes the expertise of experienced educators working within a community of professional learners. Most importantly, this program will prepare educators to conduct classroom-based research and to use their knowledge of research to make data-based decisions in order to improve student learning.

The Master's Degree is an integral part of the University of Wisconsin-Green Bay's Institute for Learning Partnership. The Institute brings together the extensive resources of the University, regional school districts, area businesses, and community leadership to improve the quality of education for all learners. In addition to working with the experienced faculty in education, participants in the Master's Degree program have opportunities to work with faculty across a variety of academic disciplines as well as participate in regional and local professional initiatives.

The program is designed as a part-time program for educators who are actively employed in educational settings (e.g., K-16 classroom settings and/or business and industry training). Most courses are currently offered on the weekends and during the summer. Students are admitted to the program each fall semester in cohorts with a maximum of 20. This small class size enables degree candidates to have close contact with the program's faculty and promotes the development of a sense of community over the course of the program.

PREREQUISITES

Minimum admission requirements are:

- A baccalaureate degree from an accredited institution.
- Three years of successful teaching experience.
- A minimum of a 3.0 grade point average (gpa).
- Current teaching license/certification.

ADMISSION REQUIREMENTS

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

The application process involves three levels or steps. Screening and admission decisions are made at each step. This process allows applicants to provide additional detail about their teaching and learning experiences as the screening progresses to ensure that there is an appropriate match between the goals of the program and each applicant's professional development needs.

Level One includes a UW-Green Bay Graduate Application form; letter of interest; three letters of recommendation; official transcripts (undergraduate and graduate); brief curriculum vitae; verification of teaching license(s) and/or certification(s).

Level Two includes a writing sample and a teaching/learning portfolio.

Level Three includes an interview.

DEGREE REQUIREMENTS

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

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

Students must file a Graduate Program Plan in the semester in which six graduate credits are completed. An adviser must be consulted before the plan is filed.

Core Requirement, 21 credits

CORE COURSES:

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

must complete the following four courses:

007-701 An Exploration of Education: Self-reflection and Systematic Inquiry, 4 credits

007-702 Exploring Learning: Perspectives in Inquiry, 4 credits

007-703 Contemporary Issues in Historical Context: Insights from Ongoing Research, 4 credits

007-704 Contemporary Issues in Historical Context: Assuming Leadership and Implementing Change, 3 credits

INQUIRY PROJECT (THESIS):

007-799 Thesis, 6 credits

Each individual in the program designs, implements, and evaluates a school- or classroom-based research project. Participants engage in activities relevant to the development, implementation, interpretation, and dissemination of their thesis research under the direct guidance of a graduate faculty adviser. In addition to the required faculty, professionals from outside the University may also serve on thesis committees.

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

Area of Emphasis, 9 credits

Each student selects an area of emphasis consisting of at least nine graduate credits. Areas of emphasis in Adaptive Education and Curriculum and Instruction are in place as this catalog is published and additional areas are under development. It may be possible to establish a personal area of emphasis fitted to the career interests of the student. Such programs must conform to Applied Leadership guidelines and be filed as a Program Plan approved by the student's academic adviser, program chair, and the associate dean for graduate studies and research.

Program requirements change from time to time. New graduate courses are added and others are dropped. This catalog describes the program requirements at the time of

publication. Consult an adviser for any changes since publication.

FACULTY

Gray, Esther, Assistant Professor, Education. B.A. (1970), M.S. (1979) Kansas State; Ph.D. (1999) Indiana University.

Fields of interest: integrated language arts from early childhood through middle level; cultural images in materials for children and adolescents; student-initiated inquiry education in mixed ability groups across the curriculum; multiple literacies for learning and teaching (integration of language, art, music, movement, mathematics and other sign systems); drama as a learning medium.

Laughlin, Margaret, Professor, Education (Social Science). B.A. (1959), M.A. (1964) California State-Sacramento; Ed.D. (1978) Southern California.

Fields of interest: social studies; international/comparative education; global/multicultural education; curriculum; foundations; research; standards and assessment.

Law, Barbara, Associate Professor, Education. B.A. (1972) Hawaii; M.A. (1979), Ph.D. (1989) Michigan State.

Field of interest: English as a second language.

Ragan, Patricia, Assistant Professor, Education. B.A. (1962) UW-Milwaukee; M.S. (1988) Cardinal Stritch; Ph.D. (1995) UW-Milwaukee.

Fields of interest: infant and child development and collaboration with community agencies.

Thron, Joan, Associate Professor, Education. B.A. (1959) Emory; M.A. (1973), Ph.D. (1994) UW-Madison.

Fields of interest: making connections among reading, speaking and listening.

Tompkins, Francine, Associate Professor, Education. B.A. (1972), M.A. (1979), Ph.D. (1987) Michigan State.

Fields of interest: education of exceptional

needs students. Educational psychology. Educational collaboration and action research.

Van Koevering, Thomas, Professor, Education. B.S. (1962) Western Michigan; M.A. (1966) Michigan; Ph.D. (1969) Western Michigan.

Fields of interest: science and science education, emphasis on elementary and secondary school; inservice science enrichment courses for teachers; science motivation and international science education.

COURSE DESCRIPTIONS

In the course descriptions in this catalog, commonly used abbreviations include:

cr	credits
P	prerequisite course or experience
Rec	recommended course or experience
gr st	graduate standing
fr	freshman
soph	sophomore
jr	junior
sr	senior
cons inst	consent of instructor

Graduate-Only Courses (700 Level)

007-701 An Exploration of Education: Self-reflection and Systematic Inquiry 4 cr.

Participants will work within a community of learners to develop knowledge, skills, and values appropriate to engage in systematic reflection, gain a fundamental understanding of educational reform, and examine the role of classroom-based inquiry. P: MSLGR. (fall)

007-702 Exploring Learning: Perspectives in Inquiry 4 cr.

Participants will gain foundational knowledge and skills necessary to allow them to be informed consumers of educational research and active teachers-researchers.

They will also explore the major research paradigms within the sciences, social sciences, and humanities. This exploration will be conducted within the context of understanding historical and contemporary perspectives about learning. P: MSLGR and 007-701. (*spring*)

007-703 Contemporary Issues in Historical Context: Insights From On-going Research 4 cr.

Participants will share breakthroughs and challenges, and also the new questions which develop for them as they progress in their individual research projects. Course readings and learning activities will support the development of participant's capabilities to understand and articulate educational knowledge and issues from multiple perspectives. P: MSLGP and 007-702. (*fall*)

007-704 Contemporary Issues in Historical Context: Assuming Leadership and Implementing Change 3 cr.

Participants will draw on thoughtful interpretations of their research to identify effective educational practices. They will examine the environments and processes that lead to constructive change, and they will design an appropriate leadership plan for guiding the change process. P: MSLGP and 007-703. (*spring*)

007-783X Experimental Courses 1-4 cr. Courses and seminars offered by graduate faculty in response to special demand or on an experimental basis. Topics address current issues of general concern, special interests of student groups or faculty members, or special resources of visiting faculty. The title of the course announced in the *Timetable* will appear on the transcript of the students who enroll. Credits earned in -783X courses may not be applied toward the graduate core requirement. P: gr st. (*fall, spring, summer*)

007-797 Internship 1-6 cr.

Supervised work and learning experience on campus or with area schools. Students may enroll for internship credits only when such activity is included in the approved program plan. A description of the activities

including criteria for grading must be submitted to the student's major professor and the associate dean for graduate studies and research. MSLGP or higher. (*fall, spring, summer*)

007-798 Independent Study 1-3 cr.

Reading and research under the supervision of a member of the graduate faculty. Independent study credits may only be earned when this activity is included as part of an approved program plan. MSLGP or higher. (*fall, spring, summer*)

007-799 Thesis 1-6 cr.

Research and preparation of thesis document. Enrollment may be for 1 to 6 credits per term. All students must include 6 thesis credits in their program plan. Although additional thesis credits may be earned, a maximum of 6 credits can be applied toward a degree. Students must be enrolled for at least 1 thesis credit during the term when the thesis is defended. P: MSLGT. (*fall, spring, summer*)

**Undergraduate/Graduate Courses
(500-699 Level)**

302-540 Introduction to Learning Disabilities and Emotional Disturbance 2-4 cr.

This course will provide students with the history, definitions, etiology, methodology and programming options for students with learning and/or emotional disabilities. P: gr st.

302-541 Normal and Abnormal Language Development 2 cr.

Introduction to communication and normal and abnormal language development in relationship to cognitive development. P: gr st.

302-542 Teaching Methods for Diverse Learners 2 cr.

A study of instructional methods and materials for teaching diverse learners. P: gr st.

302-543 Educational Assessment 2 cr.

This course will focus on the study of the principles, procedures, interpretation, and administration of formal and informal student assessment. P: gr st.

302-544 Principles of Career and Vocational Education 1 cr.

This course will focus on the study of curriculum and instructional approaches that contribute to the preparation for the world of work. P: gr st.

302-545 The Exceptional Child in Regular Education 2 cr.

This course will focus on the study of instructional techniques and programming options designed to increase the success of students learning and/or behavior disabilities served within inclusionary settings. P: gr st.

302-546 Collaborative Strategies for Working With Colleagues, Parents, Community 2 cr.

This course will focus on the study of collaborative models and practices used within a variety of educational and relevant community settings and help students to develop the communications skills necessary to interact effectively with individuals in schools, agencies, and the community. P: gr st.

302-547 Classroom and Behavior Management Strategies 2 cr.

This course will address various theories and models for organizing and maintaining an effective classroom as well as strategies for working with individuals and groups. P: gr st.

302-548 Field Experience for Minor in Adaptive Education 1-3 cr.

This offering will be taken in conjunction with coursework for the minor in adaptive education. Students will be required to meet specific competencies as they work with students with learning and/or behavior disabilities. P: gr st.

UW-Green Bay Master of Science in Environmental Science and Policy

The University of Wisconsin-Green Bay's Environmental Science and Policy program is appropriate for students with interests in the scientific and/or public policy aspects of complex environmental problems. It provides a course of study that prepares its graduates for positions in scientific, technical and administrative organizations and agencies. The program's core focuses on identification and analysis of environmental issues and on developing interdisciplinary approaches and solutions to problems. The program offers three areas of emphasis: ecosystems studies, resource management, and environmental policy and administration.

Although the areas of emphasis seek to integrate the sciences with policy and administration, students choose to specialize in one depending on future career interests. Each area of emphasis has a practical orientation that involves the student in real world problems and issues rather than presenting theoretical knowledge alone. Each area of emphasis allows for and encourages student flexibility in designing a particular program of study around a core of required courses. A personal program of study, as described below, may also be developed.

The program fits the needs of both part-time and full-time students. Most graduate courses are offered once weekly in the evening or at other times convenient for working individuals. Students benefit from the mix of perspectives and experiences held by participants in courses. Full-time students gain from the practical knowledge of the working professionals, who are in turn challenged by the current theoretical knowledge of those with recent undergraduate degrees. Students like the small class sizes and the close association with faculty. Fully prepared students usually complete the program in two years. Part-time students normally complete the program in four to five years.

The program features a faculty that is widely published in the professional literature, active in externally funded research, and committed to excellence in teaching. The

faculty associated with the program firmly believe that environmental policy must be based on good science but also that science is ineffective without sound policy decisions. Close ties exist with national, state and local agencies providing students with opportunities to become engaged with and contribute to meaningful scientific research and policy formulation.

The University offers modern and well-equipped facilities that support research and study in environmental science and policy areas. Computer equipped ecology, engineering graphics and geographic information systems (GIS) laboratories are available. The library collection is strong in all areas of environmental studies, but is particularly so in environmental policy and administration. The library maintains subscriptions to most pertinent journals in science and public policy and administration. Interlibrary loans are easily available from UW-Madison and elsewhere when sources are not available locally.

AREAS OF EMPHASIS

One of the primary goals of the University of Wisconsin-Green Bay graduate program is to prepare highly skilled and imaginative individuals for middle-management and policy-making positions in government, nonprofit organizations and the private sector. Individuals with such career objectives will focus on environmental policy course work. Another objective of the University of Wisconsin-Green Bay graduate program is to prepare technically competent and imaginative individuals for positions in the public or private sectors. Individuals with such career objectives will focus on environmental science course work. Students will be prepared to deal with a variety of environmental problems or to pursue further graduate work in similar or related areas.

Ecosystems Studies

Students who select Ecosystems Studies may address problems of general features of ecosystems such as nutrient regeneration, productivity, or trophic relationships. They

can also focus on specific questions such as endangered species, predation and competition. Natural, managed and disturbed ecosystems are examined in classroom and field activities. Studies on aquatic systems take advantage of the University's location on Green Bay and participation in the University of Wisconsin Sea Grant Program. The University's proximity to large areas of northern forests and the Door Peninsula provides convenient locations for the study of diverse ecosystems.

Resource Management

Students who select this area of emphasis may study concepts of natural resource management, watershed management, or of the handling, processing, treatment and disposal of municipal, industrial and agricultural wastes. Emphasis is on evaluating alternative strategies for effective policy implementation and planning for the future. Other studies focus on ground or surface water systems. Principles and techniques of quantitative analysis are applied to problems of supply, distribution and utilization of natural resources and to the optimization of treatment and waste management costs in the context of public agencies, consulting firms and industries. Studies take advantage of the University's cooperation with the Solid and Hazardous Waste Education Center located on campus.

The Ecosystems Studies, and Resource Management areas of emphasis prepare students to:

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

Graduates typically work as scientists, environmental specialists, or project managers with industry, commercial laboratories, engineering firms, or government agencies,

where their work involves analysis, research, consulting, compliance, or enforcement.

Environmental Policy and Administration

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

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

- identify and analyze policy-relevant problems of major importance;
- design, evaluate, and implement strategies and programs for addressing such problems, and;
- design, manage, and evaluate project teams and organizational systems concerned with such problems, policies, programs, and strategies.

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

ADMISSION REQUIREMENTS

Each student's prior academic background is evaluated by a program admissions committee when he or she applies. Admission to the Environmental Science and Policy graduate program requires a student to have completed the equivalent of a basic

undergraduate course in statistics and submitted current GRE general test scores. Students with a background in both policy and science will be given preference in admission decisions.

Each area of emphasis requires different skills and preparation; therefore, additional prerequisites vary. Courses appropriate to the area of emphasis or needed to meet prerequisites of specific courses that a student wishes to incorporate into a plan of study will also be required as described below.

Applicants who do not meet these requirements may be admitted if their academic record, letters of reference, and GRE scores indicate potential for successful completion of the program. However, these students will have additional requirements placed upon them as part of their academic plan to make up any deficiencies.

DEGREE REQUIREMENTS

Students who are adequately prepared when they enter the program may earn the degree by satisfactorily completing a minimum of 28 credits of course work, plus a six-credit thesis. Those who lack appropriate prerequisites may need to take additional courses to strengthen their backgrounds. Credits earned in undergraduate courses numbered at the 100- or 200-level cannot be applied toward the graduate degree.

Credit requirements are determined by the student's chosen area of emphasis and program of study. At least 12 credits of 700-level courses must be included. Students develop individual program plans with the assistance and approval of their advisers and graduate committees.

By the time a student has successfully completed 15 credits, usually during the second semester, he or she should have selected a thesis adviser, formed a committee and started to develop a thesis proposal with their assistance. Approval of the thesis proposal places the student in candidacy for the degree. Successful defense of the written thesis and completion of all courses in the student's program plan result in award-

ing of the degree. See the General Information section, page 11, for additional details.

General Core Requirements, 19 Credits

All students matriculated into the Environmental Science and Policy program are required to successfully complete the following set of required core courses (13 credits) and a six-credit thesis.

Complete the following three courses, 7 credits:

- 008-701 Perspectives in Environmental Science and Policy, 3 credits
- 008-762 Graduate Seminar, 1 credit
- 008-763 Seminar in Environmental Science and Policy, 3 credits

And one of the following environmental science courses, 3 credits:

- 008-740 Ecosystem Management, 3 credits
- 008-766 Waste Management/Resource Recovery, 3 credits
- 362-660 Resource Management Strategy, 3 credits

And one of the following public policy courses, 3 credits:

- 008-752 Environmental Policy and Administration, 3 credits
- 835-578 Environmental Law, 3 credits
- 835-602 Environmental and Resource Economics, 3 credits

And thesis requirement, 6 credits:

- 008-799 Thesis, 6 credits

Area of Emphasis Requirements

In addition to the general core requirements described above, students will select a program of study from one of the areas of emphasis described below. A fourth option is to develop a "personal program of study" more fitting to the career interest of the student.

Area of Emphasis courses (must total at

least 15 credits, unduplicated by the program core):

- Ecosystem Studies, 15-16 credits
- Resource Management, 15-16 credits
- Environmental Policy and Administration, 15-16 credits
- Personal Program of Study, 15 credits minimum

Personal programs of study must conform to Environmental Science and Policy program guidelines. Such programs must be filed as a Graduate Program Plan and be approved by the student's academic adviser, the Environmental Science and Policy program coordinator, and the associate dean of graduate studies and research. These programs must include the entire 19-credit program core requirements and include a minimum of 34 credits.

ECOSYSTEM STUDIES (15 CREDITS MINIMUM)

Emphasis Prerequisites:

(taken elsewhere or prior to entrance)

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

Core Courses:

Complete one of the following science courses, 3 credits:

- 008-715 Seminar in Ecology and Evolution, 3 credits
(3 semesters - 1 credit each semester)
- 008-740 Ecosystem Management, 3 credits
- 008-749 Wetland Ecology and Management, 3 credits

Complete one of the following quantitative courses, 3-4 credits:

- 008-765 Environmental Modeling and Analysis, 4 credits
- 008-767 Design of Experiments, 4 credits

008-768 Multivariate Statistical Analysis, 4 credits

600-555 Applied Mathematical Optimization, 3 credits

600-667 Applied Regression Analysis, 3 credits

Additional Courses, 9 credits:

Choose any combination from the courses listed here or above.

General Ecology:

362-667 Ecological Methods and Analysis, 4 credits

362-668 Ecological Applications, 4 credits

Aquatic Ecology:

362-530 Hydrology, 3 credits

362-601 Stream Ecology, 3 credits

362-603 Limnology, 3 credits

Plant Biology and Ecology:

204-511 Plant Physiology, 4 credits

204-310 Plant Taxonomy, 3 credits

204-320 Field Botany, 3 credits

204-602 Advanced Microbiology, 3 credits

362-520 The Soil Environment, 3 credits

362-563 Plants and Forest Pathology, 3 credits

Animal Ecology:

204-342 Ornithology, 3 credits

204-343 Mammalogy, 3 credits

Environmental Policy and Planning:

008-752 Environmental Policy and Administration, 3 credits

835-350 Geographic Information Systems, 3 credits

835-522 Environmental Planning, 3 credits

RESOURCE MANAGEMENT (15 CREDITS MINIMUM)

Emphasis Prerequisites:

(taken elsewhere or prior to entrance)

Students who pursue Resource Management come from a variety of undergraduate disciplines including biology, chemistry,

earth science, economics, engineering, environmental planning, environmental policy, mathematics, physics, political science, public administration, and resource management. The appropriate undergraduate course preparation is dictated by the prerequisites to the courses to be included in a program of study and the thesis topic area.

Core Courses:

Complete one of the following science courses, 3 credits:

- 008-724 Hazardous and Toxic Materials, 3 credits
- 008-733 Ground Water Resources and Regulations, 3 credits
- 008-766 Waste Management/Resource Recovery, 3 credits

Complete one of the following quantitative courses, 3-4 credits:

- 008-765 Environmental Modeling and Analysis, 4 credits
- 008-767 Design of Experiments, 4 credits
- 008-768 Multivariate Statistical Analysis, 4 credits
- 600-555 Applied Mathematical Optimization, 3 credits
- 600-667 Applied Regression Analysis, 3 credits

Additional Courses, 9 credits minimum:

Choose any combination from the courses listed here or above.

Physical Resources Management:

- 225-602 Advanced Organic Chemistry, 3 credits
- 225-613 Instrumental Analysis, 4 credits
- 225-617 Nuclear Physics and Radiochemistry, 3 credits
- 225-618 Nuclear Physics and Radiochemistry Laboratory, 1 credit
- 362-518 Pollution Control, 3 credits
- 362-520 The Soil Environment, 3 credits
- 362-535 Water and Waste Water Treatment, 3 credits

- 362-615 Solar and Alternate Energy Systems, 3 credits
- 362-632 Hydrogeology, 3 credits
- 362-634 Environmental Chemistry, 3 credits
- 362-635 Environmental Chemistry Lab, 1 credit
- 362-660 Resource Management Strategy, 3 credits

Biological Resources Management:

- 008-740 Ecosystems Management, 3 credits
- 008-749 Wetland Ecology and Management, 3 credits
- 362-669 Conservation Biology, 4 credits

Natural Resources Analysis:

- 362-654 Remote Sensing of the Environment, 3 credits
- 835-350 Geographic Information Systems, 3 credits
- 835-356 Environmental Impact Analysis, 3 credits

Environmental Policy and Planning:

- 008-713 Energy, Natural Resources, and Public Policy, 3 credits
- 008-752 Environmental Policy and Administration, 3 credits
- 835-506 Regulatory Policy and Administration, 3 credits
- 835-522 Environmental Planning, 3 credits
- 835-578 Environmental Law, 3 credits
- 835-602 Environmental and Resource Economics, 3 credits

ENVIRONMENTAL POLICY AND ADMINISTRATION (15 CREDITS MINIMUM)

Emphasis Prerequisites:

(taken elsewhere or prior to entrance)

Students who pursue Environmental Policy and Administration come from a variety of undergraduate backgrounds such as economics, engineering, environmental planning, environmental policy, political

science, public administration, sociology, or more traditional science disciplines. The appropriate undergraduate course preparation is dictated by the prerequisites to the courses to be included in a program of study and the thesis topic area. It would normally be expected that students would have the equivalent of one year of undergraduate course work in political science, public administration, or economics.

Core Courses:

Complete all of the following courses, 9 credits:

- 008-708 Public Policy Analysis, 3 credits
- 008-752 Environmental Policy and Administration, 3 credits
- 008-760 Social Research Methods, 3 credits

Institutions and Administration—complete one course, 3 credits:

- 002-753 Administrative Theory and Behavior, 3 credits
- 002-757 Management of Complex Organizations, 3 credits
- 002-770 Organizational Assessment and Development, 3 credits
- 778-516 Congress: Politics and Policy, 3 credits
- 778-610 Intergovernmental Relations, 3 credits
- 835-514 Administrative Law, 3 credits
- 835-615 Public and Nonprofit Budgeting, 3 credits

Public Policy – complete one course, 3 credits:

- 008-713 Energy, Natural Resources, and Public Policy, 3 credits
- 835-506 Regulatory Policy and Administration, 3 credits
- 835-522 Environmental Planning, 3 credits
- 835-578 Environmental Law, 3 credits
- 835-602 Environmental and Resource Economics, 3 credits

Additional Courses:

Choose any combination from the courses listed here or above.

Research Methods:

- 002-765 Program Evaluation, 3 credits
- 008-765 Environmental Modeling and Analysis, 4 credits
- 008-767 Design of Experiments, 4 credits
- 008-768 Multivariate Statistical Analysis, 4 credits
- 298-510 Introduction to Quantitative Analysis and Econometrics, 3 credits
- 600-667 Applied Regression Analysis, 3 credits
- 835-651 Decision Theory and Methods, 3 credits
- 835-652 Planning Theory and Methods, 3 credits
- 835-653 Cost-Benefit Analysis, 3 credits

Environmental Science:

- 008-715 Seminar in Ecology and Evolution, 3 credits (3 semesters – 1 credit each semester)
- 008-724 Hazardous and Toxic Materials, 3 credits
- 008-733 Ground Water Resources and Regulations, 3 credits
- 008-740 Ecosystems Management, 3 credits
- 008-766 Waste Management/Resource Recovery, 3 credits
- 362-518 Pollution Control, 3 credits
- 362-634 Environmental Chemistry, 3 credits
- 362-635 Environmental Chemistry Lab, 1 credit
- 362-660 Resource Management Strategy, 3 credits
- 362-668 Ecological Applications, 4 credits

Environmental Planning and Geographic Information Systems:

- 835-350 Geographic Information Systems, 3 credits
835-356 Environmental Impact Analysis, 3 credits
835-522 Environmental Planning, 3 credits

It is possible, even necessary depending on area requirements, that students will include one or two four-credit statistics courses in their academic program. In those cases, only seven credits would be needed in one semester which could be satisfied by the Seminars in Ecology and Evolution (008-715) or an Independent Study. If a regular course is selected, the academic program would include a total of 36 credits.

FACULTY

Chen, Dechang, Assistant Professor, Natural and Applied Sciences (Statistics). B.S. (1983) Southeast University; M.S. (1988) Peking; Ph.D. (1998) SUNY-Buffalo.

Fields of interest: pattern recognition; Bayesian analysis; model building; design of experiments; clinical trials; functional analysis; partial differential equations.

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

Fields of interest: smooth, discrete, and chaotic dynamical systems; fractals; mathematical modeling of biological systems; celestial mechanics.

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

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

Furlong, Scott R., Associate Professor, Public and Environmental Affairs (Political Science). B.A. (1985) St. Lawrence University; M.P.A. (1987), Ph.D. (1993) The American University.

Fields of interest: regulatory policy; environmental policy; legislative politics; administrative law; public policy and administration; research methods and interest group influence on the administrative rule-making process.

Harris, Hallet J., Herbert Fisk Johnson Professor, Natural and Applied Sciences; Director Institute for Land and Water Studies; Chair, Natural and Applied Science. B.A. (1961) Coe College; M.S. (1965), Ph.D. (1966) Iowa State.

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

Howe, Robert W., Associate Professor, Natural and Applied Sciences (Biology). B.S. (1974) Notre Dame; M.S. (1977), Ph.D. (1981) UW-Madison.

Fields of interest: terrestrial ecology and conservation biology; bird population dynamics in fragmented forests; natural history and biogeography of vertebrates; evolutionary ecology.

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

Fields of interest: American politics and government; public policy analysis, congressional behavior and legislative processes; environmental policy and politics in the U.S.; sustainable communities; politics of nuclear waste disposal.

Lyon, John M., Associate Professor, Natural and Applied Sciences (Chemistry). B.S. (1977) Lehigh; Ph.D. (1983) Rutgers.

Fields of interest: transition metal chemistry; reactions of transition metals in high oxidation states as oxygenation catalysts; photochemical energy conversion systems.

Marker, James C., Associate Professor. Human Biology (Exercise Physiology). B.S. (1979) Weber State University; M.S. (1981) Utah State University; Ph.D. (1985) Brigham Young University; Post-Doctoral Fellow (1985-88) Washington State University of Medicine.

Fields of interest: exercise physiology/endocrinology; the role/response of hormones during exercise; metabolic responses to exercise and exercise training; adaptations to exercise training in the elderly; the role of the sympathoadrenal system and glucose counter-regulatory system during exercise; exercise/muscle physiology; exercise testing and prescription; kinesiology.

McIntosh, Thomas H., Professor Emeritus, Natural and Applied Sciences (Earth Science). B.S. (1956), M.S. (1958), Ph.D. (1962) Iowa State University.

Fields of interest: soils, agronomic systems, remote sensing.

Merkel, Brian J., Assistant Professor. Human Biology (Biology). B.S. (1989) Richmond; Ph.D. (1994) Virginia Commonwealth.

Fields of interest: the environmental effects of polychlorinated biphenyls (PCBs) on the human and murine immune system; specifically the effects of PCBs on neutrophils and lactoferrin concentrations are being examined in individuals living in the Fox River watershed; examination of the effects of environmental contaminants on T. Lymphocytes and HLA protein expression.

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

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

Morgan, Michael D., Professor, Natural and Applied Sciences (Biology). B.S. (1963) Butler; M.S., Ph.D. (1968) Illinois.

Fields of interest: reproductive ecology of plants; terrestrial plant ecology and conservation biology; relations between climatic change and plant production and distribution.

Nair, V.M.G., Professor. Natural and Applied Sciences (Forest and Plant Pathology, Mycology). B.Sc., Madras; M.Sc., Aligarh; Associate I.A.R.I, Agricultural Ministry, New Delhi; Ph.D. (1964) UW-Madison.

Fields of interest: international quarantine and disease control programs of plant-forest tree diseases; Weedicide-Silvicide applications in the establishment of exotic tree species in developing countries and their aftereffects on wildlife and fishes; preservation of tropical forests species and forest medicinal plants; host parasite interactions of vascular wilt and canker pathogens; electron and three-dimension electron microscopy.

Nekola, Jeffrey C., Assistant Professor, Natural and Applied Sciences (Ecology). B.A. (1987) Coe College; Ph.D. (1993) University of North Carolina.

Fields of interest: principles of ecology; biological resource management; conservation biology; plant taxonomy.

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

Fields of interest: geographic information systems; remote sensing applications; land use planning; environmental impact assessment.

Noblet, James A., Assistant Professor, Natural and Applied Sciences (Chemistry). B.S. (1983) UC-Los Angeles; M.S. (1991) California State-Long Beach; Ph.D. (1997) UC-Los Angeles.

Fields of interest: fate and transport of pollutants in aquatic systems; sorption processes of organic chemicals and metals; humic substances; analytical methods.

Norman, Jack C., Professor, Natural and Applied Sciences (Chemistry). B.S. (1960) New Hampshire; Ph.D. (1965) UW-Madison.

Fields of interest: nuclear and radio chemistry; environmental radioactivity; distribution and cycling of natural and artificial radionuclides in the environment; wastepaper recycling and deinking; recycling and decontamination of pulping liquors and effluents.

Rhyner, Charles R., Professor, Natural and Applied Sciences (Physics). B.S. (1962), M.S. (1964), Ph.D. (1967) UW-Madison.

Fields of interest: applied physics including radiation dosimetry and electronic instrumentation; primary research interest is in modeling solid waste management systems.

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

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

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

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

Schwartz, Leander J., Professor Emeritus, Natural and Applied Sciences (Biology). B.S. (1957) UW-Platteville; M.S. (1959), Ph.D. (1963) UW-Madison.

Fields of interest: resource recovery; anaerobic digestion of organic wastes and/or use as fertilizers and in other applications; bacterial survival in aquatic ecosystems.

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

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

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

Fields of interest: natural resources and environmental economics; econometrics; nonmarket valuation methodology; economics of recreation and leisure; cost-benefit analysis, regional economics, fisheries economics.

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

Fields of interest: environmental engineering, waste processes.

Viadero, Roger C., Assistant Professor, Natural and Applied Sciences (Engineering). B.S. (1993) Mary Washington College; M.S. (1994) Illinois; Ph.D. (1997) West Virginia.

Fields of interest: application of novel physio-chemical solid-liquid separation technologies to water, wastewater and hazardous waste treatment; removal of organic and inorganic contaminants from subsurface soils using electrokinetic processes and soil flushing techniques; low-level radioactive waste management.

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

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

Wiersma, James H., Professor Emeritus, Natural and Applied Sciences (Chemistry). B.S. (1961) UW-Oshkosh; M.S. (1965), Ph.D. (1967) Missouri-Kansas City.

Fields of interest: assessment of fate of water pollutants (pesticides); performance of water pollution abatement methods; development of new analytical chemical methods with emphasis on techniques applied to environmental problems; bioremediation, arsenic in ground water.

COURSE DESCRIPTIONS

In the course descriptions in this catalog, commonly used abbreviations include:

cr	credits
P	prerequisite course or experience
Rec	recommended course or experience
gr st	graduate standing
fr	freshman
soph	sophomore
jr	junior
sr	senior
cons inst	consent of instructor

Graduate-Only Courses (700 Level)

008-701 Perspectives in Environmental Science and Policy 3 cr.

Introduces the fundamental perspectives on environmental issues. Develops a framework based on the natural sciences, economics, and politics/policy by which the complex causes of environmental problems can be understood and viable interdisciplinary solutions formulated. P: gr st. (*fall*)

008-708 Public Policy Analysis 3 cr.

Public policy analysis methods and their role in the policy-making process, primarily in American government. Topics include: approaches to the study of public policy, policy formulation and adoption, methods for assessment of policy alternatives, ethics and policy analysis, policy implementation and evaluation, and the utilization of policy

analysis in decision making. P: gr st. (*fall*)

008-713 Energy, Natural Resources and Public Policy 3 cr.

Public policy issues related to energy and other natural resources with a special emphasis on the United States. Topics include fossil energy, nuclear energy, solar and other alternative sources of energy; natural resources ranging from soil, water and minerals to wildlife, forests and parks. P: gr st. (*fall, odd years*)

008-715 Seminar in Ecology and Evolution (subtitle) 1 cr.

A forum for discussion of contemporary ideas in ecology and evolution. Topics and weekly readings are chosen from the current scientific literature; examples from recent semesters include ecosystem stability, competition and coexistence, group selection, trophic dynamics, and complex species interactions. May be repeated with change in topic to maximum of three credits. P: gr st. (*fall, spring*)

008-724 Hazardous and Toxic Materials 3 cr.

The handling, processing, and disposal of materials which have physical, chemical, radiochemical, and biological properties presenting hazards to humans; procedures for safe handling and for compliance with regulations. P: undergraduate courses in chemistry, physics, biorganic chemistry or equivalent. (*spring*)

008-733 Ground Water: Resources and Regulations 3 cr.

Geology, properties, flow, and pollution of ground water systems: Techniques of aquifer characterization and water quality monitoring; regulatory and policy approaches to protect ground water. P: one course each in physical geology and college chemistry. (*fall, even years*)

008-740 Ecosystems Management 3 cr.

Imparts the underutilized potential of our present understanding of ecology and system dynamics to management problems associated with human dominated and natural ecosystems. (*spring*)

008-749 Wetland Ecology and Management 3 cr.

Ecological processes and characteristics of wetlands such as primary productivity, hydrology, decomposition and nutrient dynamics are studied. Wetland classification and delineation systems are examined and applied in the field. Management practices and potential as well as current approaches to values assessment are addressed. Field trip required. P: 362-302 or equivalent. *(fall)*

008-752 Environmental Policy and Administration 3 cr.

The political and institutional aspects of environmental policy-making and implementation including issues in environmental policy analysis. Emphasis is on national policy processes in the United States, but attention is given also to global and state and local environmental problems and public policy. P: gr st. *(spring)*

008-760 Social Research Methods 3 cr.

Theory and methods of research in the social sciences. Topics include the philosophy of science, research designs, data collection and program evaluation. Emphasis is on applied research. P: gr st. *(fall)*

008-762 Graduate Seminar 1 cr.

Provides opportunities to gain knowledge about a variety of environmental issues and active research through readings and student, faculty, and invited presentations. Focus is on methodology and the integration of science and policy. P: Student classification of MSEG T *(fall, spring)*

008-763 Seminar in Environmental Science and Policy 3 cr.

Capstone course of the program in Environmental Science and Policy. Selected contemporary environmental issues such as acid deposition, radioactive waste management or groundwater contamination are chosen for review and analysis in a seminar format. Both policy and scientific aspects of the topics are addressed. P: Student classification of MSEG P and 12 graduate credits. *(fall)*

008-765 Environmental Modeling and Analysis 4 cr.

How and where mathematical models are used in real life environmental applications. Focus on discrete, continuous, and stochastic models. Students will create models and use them to analyze and interpret systems. P: gr st.; and Introductory Statistics, Algebra and Trigonometry. *(spring, even years)*

008-766 Waste Management/Resource Recovery 3 cr.

Topics include generating, processing, and disposing of municipal, industrial, and agricultural waste materials with emphasis on the technical and economic feasibility of various recycling processes. P: gr st. *(fall)*

008-767 Design of Experiments 4 cr.

Statistical theory and practice underlying the design of scientific experiments, and methods of analysis. Replication, randomization, error, linear models, least squares, crossed and nested models, blocking, factorial experiments, Latin squares, confounding, incomplete blocks, split-plots. P: gr st.; and Introductory Statistics course. *(spring)*

008-768 Multivariate Statistical Analysis 4 cr.

Principles and practice in the analysis of multivariate data. Correlation, partial correlation, principle components, factor analysis discriminant functions, canonical correlation, cluster analysis, multidimensional scaling. Emphasis on computer analysis of actual data. P: gr st.; and Introductory Statistics course. *(fall)*

008-783X Experimental Courses

Courses and seminars offered by graduate faculty in response to special demand or on an experimental basis. Topics address current issues of general concern, special interests of student groups or faculty members, or special resources of visiting faculty. The title of the special topics course as announced in the *Timetable* will appear on the transcripts of the students who enroll. Credits earned in the 783X courses may not be applied toward the graduate core requirement. P: gr st. *(fall, spring)*

008-795 Special Topics in Environmental Science and Policy 1-3 cr.

Courses provided in response to special needs. These may be offered more than once, but are not intended to become a regular part of the curriculum. The title of the specific topic is announced in the *Timetable* and entered on the transcript of students who enroll. May be repeated once with a change in topic for degree credit. May not be applied toward graduate core requirements. P: gr st. (*on demand*)

008-797 Internship 1-6 cr.

Supervised work experience in an appropriate program or agency. Students may enroll for internship credits only when such activity is included in the approved program plan. A description of activities including criteria for grading must be submitted to the students' major professor and associate dean of graduate studies. P: Student classification of MSEG or higher. (*fall, spring, summer*)

008-798 Independent Study

Reading and research under the supervision of a member of the graduate faculty. Independent study credits may only be earned when this activity is included as part of an approved program plan. P: Student classification of MSEG or higher. (*fall, spring, summer*)

008-799 Thesis 1-6 cr.

Research and preparation of thesis document. Enrollment may be for 1-6 credits per term. All students are expected to include 6 thesis credits in their program plan. Although additional thesis credits may be earned, a maximum of 6 credits can be applied toward a degree. Student must enroll for at least 1 thesis credit during the semester in which the thesis is defended. P: Student classification of MSEG. (*fall, spring, summer*)

**Undergraduate/Graduate Courses
(500-699 Level)**
204-511 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 (*spring, odd years*)

204-602 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. (*fall*)

225-602 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. (*fall, odd years*)

225-613 Instrumental Analysis 4 cr.

Theory and practice of analysis by instrumental methods, including methods based on absorption and emission of radiation, electro-analytic methods, chromatographic methods and radiochemical methods. (*fall*)

225-617 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. (*spring, odd years*)

225-618 Nuclear Physics and Radiochemistry Laboratory 1 cr.

Laboratory course to accompany 225-617. (*spring, odd years*)

298-510 Introduction to Quantitative Methods and Econometrics 3 cr.

An introduction to the use of mathematical concepts and techniques in the analysis of economic phenomena and of statistical methods to estimate equations describing economic events. P: 298-203; 600-201 or 202; and 255-205 or 600-260. (*spring*)

362-518 Pollution Control 3 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. (*fall, odd years*)

362-520 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. (*fall*)

362-521 The Soil Environment Laboratory 1 cr.

Field and laboratory study of physical, chemical and biological properties of soils. (*fall*)

362-530 Hydrology 3 cr.

Qualitative study of the principal elements of the water cycle, including precipitation, run-off, 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. (*fall*)

362-535 Water and Waste Water Treatment 3 cr.

Water and waste water treatment systems, including both sewage and potable water treatment plants and their associated collection and distribution systems. Study of the unit operations, physical, chemical and biological, used in both systems. (*spring, even years*)

362-563 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. (*fall*)

362-601 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. (*fall, even years*)

362-603 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. (*fall, odd years*)

362-615 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. (*spring, odd years*)

362-632 Hydrogeology 3 cr.

Introduction to geological and physical principles governing ground water flow. Description of aquifer properties, chemical processes, equation of flow, well hydraulics, and environmental concerns. (*spring*)

362-634 Environmental Chemistry 3 cr.

The physical, chemical and biological processes that affect the composition of air and water. Chemical reactions in polluted and unpolluted environments; dispersal processes; methods of control for various pollutants.

362-635 Environmental Chemistry Laboratory 1 cr.

Laboratory exercises, including field methods, monitoring and analysis techniques to accompany 362-634.

362-654 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. (*spring*)

362-660 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. (*spring*)

362-667 Ecological Methods and Analysis 4 cr.

Overview of current theory and practices of ecological sampling and analysis for terrestrial systems with field and laboratory experiences in these methods. Field trips required. *(fall)*

362-668 Ecological Applications 4 cr.

Application of ecological knowledge to the management of natural and human dominated environments, including consideration of agroecosystems, forest, wetland and riparian ecosystems. Attention given to ecology and management of harvestable species, endangered species, non-indigenous species and indigenous pest species. Introduction to the fields of ecotoxicology, ecological risk assessment and ecological economics as they relate to ecosystem management. Field trips required. *(fall)*

362-669 Conservation Biology 4 cr.

Overview of the major issues and ecological principles underlying the field of conservation of biology, including patterns and measurement of biological diversity from genetic to community scales. Field trips required. *(spring)*

600-555 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. *(fall, even years)*

600-667 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. Rec: knowledge of MINITAB. *(fall)*

778-516 Congress: Politics and Policy 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. *(spring)*

778-610 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. *(fall)*

835-506 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. *(spring)*

835-514 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.

835-522 Environmental Planning 3 cr.

The concept of planning, the history of its use in the development of regions, and the present status of planning in the United States, with some international comparisons. *(spring)*

835-578 Environmental Law 3 cr.

An overview of major environmental laws including their historical development, structure and implementation by federal, state and local agencies. *(fall, summer)*

835-602 Environmental and Resource Economics 3 cr.

Applications of tools and concepts in current economic decision making, with special emphasis upon common property resources management. *(spring)*

835-615 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. (*spring*)

835-651 Advanced Policy Analysis

3 cr.

Normative models for policy analysis, including decision trees, cohort survival, queueing, Markov processes, and regression. Application of descriptive statistics, systems theory for understanding systems and alternatives. Evaluation methods. (*fall*)

835-652 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. (*spring*)

835-653 Cost-Benefit Analysis 3 cr.

Intensive analysis of procedures involved and conceptual basis of project evaluation from both public and private sector viewpoints. Hands-on experience is gained through work sheets and student projects. (*fall, even years*)

Undergraduate Courses

(300-400 Level)

Graduate credit for undergraduate courses with 300 or 400 level numbers is available only with special permission of the instructor and the student's graduate adviser or the associate dean of graduate studies. An assigned study card is required for registration in one of these courses under either the XXX-596 or XXX-696 number.

Business Administration (MBA)

A Cooperative Program with the University of Wisconsin-Oshkosh

The UW-Oshkosh MBA is a cooperative program offered at UW-Green Bay. The MBA degree is awarded by UW-Oshkosh which is accredited by the American Assembly of Collegiate Schools of Business. It is specifically designed to provide individuals in both the public and private sectors with professional managerial training. All MBA courses are evening courses given by UW-Oshkosh on the UW-Green Bay campus.

BASIC REQUIREMENTS

In addition to foundation courses, the MBA program consists of three structured levels of courses:

- Management core
- Functional core
- Electives

General requirements consist of 30 graduate credits in the core and elective courses with foundation course work taken as needed, depending on previous undergraduate training.

MBA candidates must maintain at least a 3.0 grade point average in all course work with no more than two Cs. The maximum time allowed to complete the degree is seven years from the date of starting the first degree course. Foundation courses are not included in the seven-year time limit.

For more detailed information regarding admission criteria, program requirements and enrollment procedures contact:

Dr. Donald Simons
Director of MBA Program
College of Business Administration
University of Wisconsin-Oshkosh
Oshkosh, WI 54901
920-424-1436

UW-Oshkosh contact person:
Lynn Grancorbitz
MBA program adviser
1-800-633-1430
grancorb@uwosh.edu

UW-Green Bay contact person:

Donald H. McCartney, Jr.,
Senior lecturer
920-465-2520
mccartnd@uwgb.edu

Foundations

Foundation-level courses are designed to provide the necessary academic background for graduate study in business. The courses may be waived if the student has completed equivalent course work in previous academic studies. A number of UW-Green Bay courses may serve as the equivalent of foundation courses. (For descriptions of UW-Green Bay courses, see the undergraduate catalog.)

Oshkosh 28-700 Accounting Foundations, 3 credits

OR

Green Bay 107-300 Introductory Accounting, 4 credits

AND

Green Bay 107-302 Managerial Accounting I, 3 credits

Oshkosh 28-710 Management and the Computer, 1.5 credits

OR

Green Bay 216-280 Introduction to Management Information Systems, 3 credits

Oshkosh 28-712 Foundations of Statistics, 3 credits

OR

Green Bay 600-260 Introductory Statistics, 4 credits

OR

Green Bay 216-215 Introduction to Business Statistics, 3 credits

Oshkosh 28-730 Finance Foundations, 3 credits

OR

Green Bay 216-343 Corporation Finance, 3 credits

Oshkosh 28-740 Foundations of Production Management, 3 credits

Oshkosh 28-770 Marketing Foundations, 3 credits

OR

Green Bay 216-322 Introductory Marketing, 3 credits

Oshkosh 36-704 Basic Economic Theory, 3 credits

OR

Green Bay 298-202 Macro Economic Analysis, 3 credits

AND

Green Bay 298-203 Micro Economic Analysis, 3 credits

Oshkosh 28-750 Organizational Foundations, 1.5 credits

OR

Green Bay 216-382 Introductory Management, 3 credits

Management Core, 12 credits

A new, exciting management core is intended to develop managerial skills and to expose students to current trends and concepts at the forefront of management thought. The courses attempt to get students to think broadly and to look at the company as a whole. The management core is intended to be dynamic. It will change as the needs of management and the business community continue to change. All management core courses are required for the MBA degree.

MANAGEMENT CORE COURSES:

Oshkosh 28-788 Professional Skills, 3 credits

Oshkosh 28-789 Strategic Thinking, 1.5 credits

Oshkosh 28-790 Organizational Leadership and Change, 1.5 credits

Oshkosh 28-791 Process and Quality Improvement, 1.5 credits

Oshkosh 28-792 International Business, 1.5 credits

Oshkosh 28-793 Business Environments: Law, Regulation, and Ethics, 1.5 credits

Oshkosh 28-794 Strategic Choice and Implementation, 1.5 credits

Functional Core, 9 credits

The functional core is intended to allow students the opportunity to focus on more specialized areas of business. However, it is also designed to insure that each student has exposure to more than one specialized area. Students are required to select three functional core courses. Additional functional core courses may also be selected and would count as electives.

FUNCTIONAL CORE COURSES:

Oshkosh 28-731 Financial Management, 3 credits

OR

Oshkosh 28-752 Managerial Accounting, 3 credits

Oshkosh 28-753 Managerial Decision Making, 3 credits

OR

Oshkosh 28-754 Information Systems Integration, 3 credits

Oshkosh 28-761 Human Resource Development, 3 credits

OR

Oshkosh 28-771 Marketing Strategy and Planning, 3 credits

Electives, 9 credits minimum

Students are required to complete at least nine credit hours selected from the following courses:

Oshkosh 28-601 Auditing, 3 credits

Oshkosh 28-605 Not-For-Profit Accounting, 3 credits

Oshkosh	28-608 Advanced Accounting, 3 credits	Oshkosh	28-773 International Marketing Management, 3 credits
Oshkosh	28-694 International Business Study Tour, 3 credits	Oshkosh	28-774 Seminar in Marketing Topics, 3 credits
Oshkosh	28-701 Topics of Enterprise Reporting, 3 credits	Oshkosh	28-777 Consumer Behavior, 3 credits
Oshkosh	28-702 Cost Analysis and Control, 3 credits	Oshkosh	28-783 Seminar in Information Systems, 3 credits
Oshkosh	28-703 Strategy of Tax Management, 3 credits	Oshkosh	28-784 Decision Support Systems, 3 credits
Oshkosh	28-704 Accounting Information Systems, 3 credits	Oshkosh	28-795 Business Administration Thesis, 6 credits
Oshkosh	28-707 Tax Accounting, 3 credits	Oshkosh	28-796 Independent Study in Business Administration, 1-3 credits
Oshkosh	28-720 Legal Aspects of Domestic and International Business Transactions, 3 credits		
Oshkosh	28-722 Planning for Management in the Future, 3 credits		
Oshkosh	28-732 Investment Analysis and Portfolio Management, 3 credits		
Oshkosh	28-733 Money and Capital Markets, 3 credits		
Oshkosh	28-734 International Financial Management, 3 credits		
Oshkosh	28-741 Productivity and Quality Management, 3 credits		
Oshkosh	28-742 Quantitative Analysis in Production Management, 3 credits		
Oshkosh	28-743 Topics in Operations Management, 3 credits		
Oshkosh	28-762 Organizational Reward Systems, 3 credits		
Oshkosh	28-763 Labor Relations, 3 credits		
Oshkosh	28-765 Venture Management, 3 credits		
Oshkosh	28-769 Seminar in Management Topics, 3 credits		
Oshkosh	28-772 Research for Marketing Decisions, 3 credits		

Education Programs

Cooperative Programs with the University of Wisconsin-Milwaukee and the University of Wisconsin-Oshkosh

Through a series of cooperative arrangements between the University of Wisconsin-Green Bay and its sister campuses, UW-Milwaukee and UW-Oshkosh, three graduate programs in education may be completed at the UW-Green Bay campus. These are:

- Master of Science in Administrative Leadership and Supervision in Education with an Emphasis on Educational Administration and Supervision (UW-Milwaukee)
- Master of Science in Educational Psychology with a Concentration in Counseling (UW-Milwaukee)
- Master of Science in Education – Reading (UW-Oshkosh)

These programs offer a coordinated set of UW-Green Bay and UW-Milwaukee or UW-Oshkosh courses to enable students to complete requirements for these degrees on the UW-Green Bay campus. Students must be admitted to the graduate school and appropriate department of the degree-granting campus (UW-Milwaukee or UW-Oshkosh) and are subject to the rules and regulations of that campus. Students who satisfactorily complete degree requirements will receive the appropriate degree from the sponsoring campus and be recommended for any appropriate licensure associated with the degree by that campus.

Students in these cooperative programs normally will include 12 UW-Green Bay credits in their programs of study. Lists of appropriate UW-Green Bay courses appear in this chapter. For information about course selection, students should contact Prof. Margaret Laughlin, chair of cooperative programs in education at UW-Green Bay at 920-465-2057 or 2137.

APPLICATION FOR ADMISSION AND PROGRAM INFORMATION

Packets including further information on these programs and application forms for

admission to the sponsoring campus graduate schools and departments are available from:

Education Office, Wood Hall 416
University of Wisconsin-Green Bay
2420 Nicolet Drive
Green Bay, WI 54311-7001

Also, for more complete descriptions of the programs, courses, degree requirements, rules and regulations and other pertinent information, students should consult the appropriate sponsoring campus graduate catalog, which may be obtained from the UW-Green Bay Education Office or by contacting the graduate school of the sponsoring campus.

REGISTRATION

Registration for UW-Milwaukee or UW-Oshkosh courses may be completed by mail. Forms are available from the UW-Green Bay Education Office. Students register for the UW-Green Bay courses in their programs as graduate special students, indicated by a special classification code. Registration may be completed on campus or by mail. Early registration is encouraged.

FEES

Students pay fees to the campus offering the courses in accordance with the fee schedule and procedures of that campus.

ADMINISTRATIVE LEADERSHIP AND SUPERVISION DEGREE

Master of Science in Administrative Leadership and Supervision in Education with an Emphasis on Educational Administration and Supervision

Degree Requirements

The program consists of 33 total credits for the principal licensure and an additional 27 credits for district administrator.

UW-GREEN BAY COURSES, 12 CREDITS

Green Bay 006-740 Supervision of Instruction, 3 credits

Green Bay 006-780 Foundations of Curriculum, 3 credits

Green Bay 006-795 Political Context of Schools, 3 credits

Elective as approved by adviser, 3 credits

UW-MILWAUKEE COURSES TAUGHT ON THE UW-GREEN BAY CAMPUS, 21 CREDITS

Milwaukee 103-702 Educational Administration: Theory and Practice, 3 credits

Milwaukee 103-710 Organizational Change and Group Leadership, 3 credits

Milwaukee 103-752 Legal Aspects of Educational Administration, 3 credits

Milwaukee 103-762 Introduction to School Finance and Budgeting, 3 credits

Milwaukee 103-772 Seminar in Principals-ship, 3 credits

Milwaukee 103-782 Principals-ship Field Practicum, 3 credits

Elective as approved by adviser, 3 credits

DISTRICT ADMINISTRATOR LICENSE

Requires completion of MSE – Administrative Leadership, Principal, plus the following 27 credits:

Milwaukee 103-802 The School Superintendency, 3 credits

Milwaukee 103-812 School Personnel Supervision and Administration, 3 credits

Milwaukee 103-832 Educational Politics and Policy Making, 3 credits

Milwaukee 103-842 Program Planning and Evaluation in Education, 3 credits

Milwaukee 103-852 Collective Bargaining and Contract Administration in Education, 3 credits

Milwaukee 103-862 Economics of Education, 3 credits

Milwaukee 103-882 Practicum in School Superintendency, 3 credits

Milwaukee 103-892 Applied Field Study Project, 3 credits

Elective as approved by adviser, 3 credits

Comprehensive Examination

Students must pass a final comprehensive examination.

Time Limit

A student must complete all requirements for the degree within seven years of the initial enrollment.

Licensure Opportunities

Upon satisfactory completion of this program, persons who are eligible for a Wisconsin teaching license and have the required teaching experience may qualify for a license as an elementary or secondary school administrator and/or district administrator.

EDUCATIONAL PSYCHOLOGY – COUNSELING DEGREE

Master of Science in Educational Psychology with a Concentration in Counseling

Degree Requirements

The degree program consists of 39 credits.

UW-GREEN BAY COURSES, 12 CREDITS

Green Bay 006-750 Statistical Methods Applied to Education, 3 credits

Green Bay 481-620 Tests and Measurements, 3 credits
(P: course in statistics)

Electives as approved by adviser, 6 credits
 For licensure in school counseling, electives must include Green Bay 302-610 Introduction to the Education of Exceptional Children, unless the course has been taken for undergraduate credit.

UW-MILWAUKEE COURSES TAUGHT ON THE UW-GREEN BAY CAMPUS, 27 CREDITS

- Milwaukee 265-710 Counseling: Theory and Issues, 3 credits
 - Milwaukee 265-711 Foundations of Career Development, 3 credits
 - Milwaukee 265-714 Essentials of Counseling Practice, 3 credits
 - Milwaukee 265-715 Multicultural Counseling, 3 credits (P: 265-714)
 - Milwaukee 265-774 Fieldwork in Counseling, 3 credits (P: 265-710 and 265-714)
 - Milwaukee 265-800 Group Counseling Theory, 3 credits (P: 265-710 and 265-714)
 - Milwaukee 265-970 Supervised Practicum in Counseling, 3 credits (P: 265-710, 265-714 and 265-744)
 - Milwaukee 315-640 Human Development: Theory and Research, 3 credits
- One of the following courses depending upon concentration:
- Milwaukee 265-810 Counseling in the Schools, 3 credits (P: 265-710 and 265-714)
 - Milwaukee 265-812 Clinical Studies in Counseling, 3 credits (P: 265-710 and 265-714)

Comprehensive Examination

The student must pass a final oral or written comprehensive examination.

Time Limit

The student must complete all degree requirements within five years of initial enrollment.

Licensure Opportunities

Upon satisfactory completion of this

program, persons who are eligible for a Wisconsin teaching license and have the required teaching experience may qualify for a license as a counselor at the elementary or secondary school level.

READING DEGREE

Master of Science in Education - Reading

Degree Requirements

The degree program consists of 36 credits.

Prerequisites: Applicants must hold and be eligible for teacher licensure and should have taken the following:

Oshkosh 16-554 The Learning Disabled Child, 2 credits*

AND

Green Bay 302-519 Adolescent Literature in Middle and Secondary School Reading, 3 credits*

If these have not been taken as recent courses, they must be completed either as undergraduate courses or as graduate elective credits within the program.

UW-GREEN BAY COURSES, 12 CREDITS

- Green Bay 006-705 Reading in the Elementary School, 3 credits* (equivalent to Oshkosh 15-705)
- Green Bay 006-765 Diagnosis of Reading Difficulties, 3 credits* (equivalent to Oshkosh 15-765)

Electives, 6 credits (include Oshkosh 16-554 and Green Bay 302-519 if these have not already been taken.)

UW-OSHKOSH COURSES TAUGHT ON THE UW-GREEN BAY CAMPUS, 24 CREDITS

- Oshkosh 15-735 Reading in the Secondary School, 3 credits*
- Oshkosh 15-720 Interactive Literacy Intervention, 3 credits*
- Oshkosh 15-721 Readers/Writers Workshop, 3 credits*
- Oshkosh 12-770 Foundations of Educational Research, 3 credits
- Oshkosh 15-780 Administration and Supervision of Reading Programs, 3 credits**

Oshkosh 15-785 Practicum in Reading, 3 credits**

Oshkosh 15-790 Seminar in Reading Research, 3 credits

Oshkosh Electives

Credit Requirements

Thirty-six credits applicable to the degree constitute the minimum requirements for students in the MSE – Reading program.

Comprehensive Examination

Candidates must successfully complete a written comprehensive examination.

Time Limit

All work applied toward the degree must be completed within a seven-year time period.

Licensure Opportunities

1. To be recommended for 316 (reading teacher) licensure, the student must be enrolled in a graduate program and complete the 20 credits above marked with an asterisk.
2. To be recommended for 317 (reading specialist) licensure, the student must complete the MSE – Reading degree and have taken 15-780 Administration and Supervision of Reading Programs, and 15-785 Practicum in Reading.
3. At least 12 of the required credits for licensure, including Oshkosh 15-720 Interactive Literacy Intervention, must be taken at UW-Oshkosh or at UW-Green Bay in the UW-Oshkosh – UW-Green Bay MSE – Reading cooperative program.
4. A minimum of two years of teaching experience is required by the Department of Public Instruction for 316 and 317 licensure.

FACULTY

Hughes, Fergus, Professor, Human Development. B.A. (1968) St. Johns University; M.A. (1972), Ph.D. (1972) Syracuse.

Life-span human development, child and adolescent psychology.

Korithoski, Theodor, Associate Professor, Education. B.S. (1971) Idaho State University; M.S. (1986) University of Montana; Ed.D. (1988) University of Montana.

Mathematics, technology, education — middle and high school.

Laughlin, Margaret A., Professor, Education (Social Science). B.A. (1959), M.A. (1964) California State, Sacramento; Ed.D. (1978) Southern California.

Social Studies. International/comparative education. Global/multicultural education. Curriculum. Foundations. Research. Standards and assessment.

Stokes, Sandra M., Associate Professor, Education. B.A. (1969) University of Bridgeport; M.A. (1973) Fairfield University; Ph.D. (1989) Kent State University.

Reading in the content areas, reading diagnosis and assessment, social and family influences on early development, education of students with exceptional needs, educational psychology.

Tompkins, Francine, Associate Professor, Education (Special Education). B.A. (1972), M.S. (1979), Ph.D. (1989) Michigan State.

Education of exceptional needs students. Educational psychology. Educational collaboration.

Van Koevering, Thomas E., Professor, Education (Science Education, Chemistry). B.S. (1962) Western Michigan; M.A. (1965) Michigan; Ph.D. (1969) Western Michigan.

Science and science education, emphasis on elementary and secondary school. In-service science enrichment courses for teachers. Science motivation and international science education.

* Required for Reading Teacher– 316 license. (**Completion of the MSE – Reading is required for Reading Specialist – 317 license; 15-780 and 15-785 must be included in the program.)

UW-GREEN BAY COURSE DESCRIPTIONS

In the course descriptions in this catalog, commonly used abbreviations include:

cr	credits
P	prerequisite course or experience
Rec	recommended course or experience
gr st	graduate standing
fr	freshman
soph	sophomore
jr	junior
sr	senior
cons inst	consent of instructor

Graduate-Only Courses (700 Level)

006-702 Business Administration of School Systems 3 cr.

Business functions and related support systems of American elementary and secondary public schools; budgeting procedures and financial reporting studies are based on relevant Wisconsin Statutes and Department of Public Instruction requirements.

006-705 Reading in the Elementary School 3 cr.

Consideration of components of a developmental reading program for the elementary school including the role of language in reading, basic reading skills and attitudes, methods and materials, individualization of instruction, and evaluation. P: gr st. (summer)

006-706 The Administrator and the Community 3 cr.

The relationship of schools and communities in American society: relationships between schools and communities, public participation in local school districts, and response of local school districts to changing demands. Emphasis is on the school administrator and citizens at the local level. P: gr st and teaching experience or cons inst. Rec: Milwaukee 103-705.

006-709 Effective Schools 3 cr.

An in-depth review and analysis of the growing body of educational research literature that identifies elements and conditions present in effective schools. Participants develop ways of assessing the extent to which these elements are present in schools and explore implications for school practices. P: gr st and current employment in education. (spring)

006-710 Practicum in Effective Instructional Skills 2 cr.

For teachers and supervisors currently involved in schools: analysis and application of effective teaching concepts and skills, including teacher demonstrations and simulations. P: gr st and teaching certification. (fall, spring, summer)

006-714 Workshop in High School Program Development 3 cr.

Selected topics for the professional educator in curriculum, instructional procedures, and evaluation of middle level program development. Current issues, philosophical trends, and rationale are discussed. Variable content; may be repeated for credit with different topics. P: gr st. (summer)

006-715 Workshop in Program Development in Middle Level Education 2-3 cr.

Selected topics for the professional educator in curriculum, instructional procedures, and evaluation of middle level program development. Current issues, philosophical trends, and rationale are discussed. Variable content; may be repeated for credit with different topics. (summer)

006-730 Issues and Trends for Educating Students With Exceptional Educational Needs (EEN) 3 cr.

Relevant issues and practices which impact the education of students with exceptional needs including gifted and talented, handicapped, and at-risk populations. P: 302-410 or 302-610; gr st. (spring)

006-740 Supervision of Instruction 3 cr.

An examination of the functions of supervision, inclusive of personnel evaluation and professional development. Includes skill development in communications and human

relations for school supervisors. P: gr st. (spring)

006-750 Statistical Methods Applied to Education 3 cr.

Types of measures, data organization and display, measures of central tendency, variability, location, and correlation, hypothesis testing and interval estimation for common statistics in one and two sample cases. Introduction to analysis of variance and chi-square. P: gr st. (fall, odd years)

006-765 Diagnosis of Reading Difficulties 3 cr.

Comprehensive and accurate diagnosis of moderate to severe reading disabilities and associated learning, language, or behavior disorders through the use of formal and informal instruments. Students complete an intensive diagnosis of a student's reading ability, a comprehensive report specifying the results of the evaluation, and a prescription for future remediation of reading problems. P: gr st and 006-705 or Oshkosh 15-635. (spring, even years)

006-780 Foundations of Curriculum 3 cr.

Philosophical, sociological, historic and psychological underpinnings of curriculum design, development and evaluation for the experienced elementary, secondary and VTAE educator. Examines forces influencing curriculum development and identifies issues related to curriculum design and development. P: gr st and experience with elementary, secondary, or VTAE education.

006-781 School Profiling for Site-Based Management 3 cr.

Teachers and principals will learn to gather, summarize, and analyze data related to important building-level educational outcomes. Outcomes in the areas of student achievement, social behaviors, and parent, staff, and student attitudes will be measured and analyzed. The course facilitates school improvement at the building level through data-driven decision making. P: gr st.

006-783X Experimental Courses

Courses and seminars may be offered by graduate faculty in response to special demand or on an experimental basis.

Topics may address current issues of general concern, special interests of students or faculty, or special resources of visiting faculty. The title of the special topics course as announced in the *Timetable* will appear on the transcripts of students who enroll. Credits earned in the 783X special topics courses may not be applied toward the graduate core requirement. P: gr st.

006-785 Curriculum and Instruction as a Field of Inquiry 3 cr.

An inquiry approach to the content of curriculum and instruction: develops skills in interpreting and using research and provides a framework related to origin, development, and basis of curriculum and instruction. P: gr st. (spring, odd years)

006-786 Current Issues and Trends in Education 3 cr.

This class critically examines and evaluates recent educational innovations, differing educational viewpoints, and alternative educational trends. Particular attention is focused on educational practices for the future. P: gr st, teaching certification, or cons inst. (fall, odd years)

006-788 The Teacher and the Law 3 cr.

Concerns of teachers relating to tenure, non-renewals, due process, free speech, student rights, and potential liability; administration of collective bargaining in education; brief introduction to statutory regulation and financing of school systems. Emphasis on Wisconsin. P: gr st and teacher certification or cons inst. (summer)

006-795 Special Topics in the Education Environment 1-3 cr.

A course offered by graduate faculty in response to a special need and which is not intended to become a regular part of the graduate curriculum. The title of the specific topic is announced in the *Timetable* and is entered on the transcript of students who enroll. This course may be repeated with a change in topic. Subject to adviser's approval, three credits may be applied to meet UW-Green Bay credit requirements in a cooperative program with the possibility of a maximum of three additional credits

upon petition. (*fall, spring, summer*)

006-798 Independent Study 1-3 cr.
Reading and research under the supervision of a member of the graduate faculty. Independent study credits may only be earned when included as part of an approved program plan. P: student classification of MSGP or higher.

**Undergraduate/Graduate Courses
(500-699 Level)**

246-520 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.

246-522 Modern Linguistics 3 cr.

Structure and system in language, with attention to modern English and including principles of structural, computational, and generative-transformational linguistics.

302-515 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.

302-519 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.

302-606 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.

302-610 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.

302-620 Workshop in Economics Education 2-3 cr.

Provides background on selected current economic topics and concepts; examines new print and nonprint instructional materials and curriculum guides in economic education; supports development of learning activities appropriate to students' instructional responsibilities.

302-621 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.

302-622 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.

302-652 Principles of Middle-Level Education 3 cr.

Provides an introductory understanding of the philosophy and organization of middle-level education. Emphasis is directed toward programmatic considerations. P: gr st and experience in education.

302-662 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.

481-620 Tests and Measurements 3 cr.

Methods and 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 or reviewing tests. P: a course in statistics.

481-631 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.

481-636 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.

Undergraduate Courses

(300-400 Level)

Graduate credit for undergraduate courses with 300 or 400 level numbers is available only with special permission of the instructor and the student's graduate adviser or the associate dean of graduate studies. An assigned study card is required for registration in one of these courses, under either the XXX-596 or XXX-696 number.

Academic Rules and Regulations

CLASS ATTENDANCE POLICY

Students are expected to attend all class sessions in the courses in which they are enrolled. In the event of illness or death of a family member, the Dean of Students Office will assist with notification of instructors. Students who do not attend classes during the first week of the semester may be dropped from the course by the instructor unless they notify the instructor in advance of the reason for non-attendance and indicate intentions to complete the course. Students who attend classes during the first week but not thereafter also may be dropped from the course by the instructor prior to the drop deadline. Registered students—whether they attend class or not—are obligated to pay all fees and penalties as listed on the fee schedule. Non-attendance does not alter academic or financial obligations.

DEFINITIONS

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.

Attempted or Grade Point Credits—those graduate credits for which a letter grade of A, AB, B, BC, C, D, WF, or F has been earned and used to calculate the grade point average.

Credit Load—the total of all graduate credits, undergraduate credits, and audited credits being taken in a given term.

Good Standing—a status assigned when a student is achieving at an adequate level (3.0 cumulative and semester grade point averages).

Grade Point Average (gpa)—a numerical value used to express the general quality of all courses/credits completed on a regular graded basis (A, AB, B, BC, C, D, F, WF). Only attempted graduate credits taken at UW-Green Bay are computed into the graduate gpa.

GRADING SYSTEM AND GRADE POINTS

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
PR (Progress-temporary grade for an internship or thesis course)	No effect
P (Passed thesis or internship)	No effect
NC (Unacceptable thesis or internship)	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)	No effect until removed, or lapsed into the tentative grade assigned if the required work is not completed prior to the deadline established by the instructor or the last day of classes for the following semester, whichever comes first.

Graduate Credits—those credits which are taken under a graduate course number (500-level or above) by a student enrolled with a graduate classification (MSA, MSE, MSI, GSP, GMI, GMC, GMO, GSO, GMB).

Graduate Record—the permanent record of all graduate-level credits attempted and grades earned, including courses which may not be completed, such as progress (PR) or incomplete (I), as well as audited graduate credits.

Maximum Credit Load—a specific limitation of the number of credits that a student is allowed to carry at any time during an academic term. For a graduate student in good standing, this is defined as 12 credits in a semester and for a graduate student on probation the maximum is reduced to 9 credits. For a shorter term, lower pro rata limitations are in effect.

Minimum Credit Load—a specific minimum number of graduate credits for which a graduate student must be enrolled in a term to be eligible for a variety of programs and benefits, such as V.A. benefits, financial aid, and assistantships.

Probation—an academic status assigned to a student who is achieving below minimum gpa standards required for good standing. Probation is an advisory warning that improved quality of work is necessary to continue as a student.

Provisional Admission—a conditional graduate admission status which is subject to review after nine graduate credits have been attempted at UW-Green Bay.

Undergraduate Record—a separate permanent record of any undergraduate courses taken. A complete transcript includes copies of both the graduate and undergraduate records compiled at UW-Green Bay.

ACADEMIC STANDING

Every student is expected to maintain certain standards of academic achievement in university work. UW-Green Bay has established quality of work standards, as measured by semester and cumulative grade point averages.

Academic standings are reviewed at the end of each term and a revised standing is reported to every student on the final grade report issued after each academic term.

PROBATION AND 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 proba-

tion or suspension status should give careful consideration to factors involved. The University encourages such students to seek assistance from counselors, graduate advisers, and course instructors.

Every student is expected to maintain at least a B average (3.0 gpa) on all graduate work carried, whether passed or not. Failure to achieve this minimum B average in any term results in a probation, continued probation, or academic suspension action at the end of that term, as shown below. Academic suspension actions are taken at the end of each term.

1. Student in Good Standing

Grade point requirements and actions:

- A 3.0 or better end-of-term cumulative gpa results in continuing good standing.
- A 2.0 to 2.999 end-of-term cumulative gpa results in probation status.
- A 1.999 or less end-of-term cumulative gpa results in academic suspension status. Student's graduate committee reviews his or her record up to that time and recommends for continued enrollment or for the suspension status to go into effect.
- Action on part-time students is withheld until at least nine credits are attempted at UW-Green Bay.

2. Student on Probation

Grade point requirements and actions:

- A 3.0 or better end-of-term cumulative gpa results in a return to good standing.
- A 2.999 or less end-of-term cumulative gpa may result in an academic suspension status at the end of any term after a cumulative total of 15 or more credits is attempted at UW-Green Bay. Student's graduate committee reviews his or her record up to that time and recommends for continued enrollment or for the academic suspension status to go into effect.

APPEALS

Academic probation is a nonpunitive warning that is not subject to appeal. Academic

suspension status may be appealed by means of a special appeal to the associate dean of graduate studies. The associate dean may seek advice from the graduate faculty board of advisers. Appeals must be filed within two weeks after the end of the semester. A student who is allowed to continue will be on probation and is subject to any other special conditions that may be designated. Any appeal must include a clear explanation of the problems causing the inadequate achievement and how the student proposes to resolve those problems.

READMISSION

Readmission after an academic suspension is not automatic. The associate dean of graduate studies may decide to deny or to 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 achievement required to continue as a graduate student. An application for readmission should be submitted to the associate dean of graduate studies at least 30 days in advance of the desired term of admission to allow for the review process.

GRADES AND GRADE APPEALS

Each student receives a grade from the instructor in charge of a course at the end of each semester or session. Grades must be in the Office of the Registrar no later than 96 hours after a final examination. Information on current grading policies accompanies the grade rosters distributed by the registrar each semester.

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 to the associate dean of graduate studies who must, in turn, consult with the course instructor. A student who wishes to appeal beyond this level consults with the dean of professional studies and outreach who then consults with the instructor and the associate dean of graduate

studies. The dean or associate dean act in advisory capacities to the student and instructor.

GRADE CHANGES

All final grades, with the exception of incompletes (I) or progress (PR), become permanent grades at the end of the following semester. Any discussions with faculty regarding grade levels or missing (N) grades must be pursued within this time period.

INCOMPLETES

If a student is unable to take or complete a final examination or other course work, due to unusual but acceptable circumstances, he or she may arrange with the instructor to receive an incomplete. The instructor files an incomplete removal form, stating both the conditions for removal and the deadline, before an incomplete grade is accepted for recording. A tentative academic action may be assigned on the basis of grades and credits received in other courses. Tentative actions are reviewed after the incomplete has been converted into a permanent grade.

Incompletes for Graduating MSGT Students

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 and the Office of the Registrar. If no earlier deadline is specified, an incomplete (I) must be removed no later than the last day of classes for the next semester.

The incomplete removal form is filed with two tentative grades. One indicates the quality of work to date; the second is to be

assigned if no more work is completed.

A student may file a special petition for an exception to the incomplete removal deadline if bona fide 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

Students may repeat a course only upon special petition to the associate dean of graduate studies. All repeated courses are designated with a letter R after the grade on the transcript. When a repeated course is completed, the original grade and entry on the transcript remain on the transcript, but the credits, grade, and grade points earned for the most recent completion are the only course records that affect cumulative attempted credits, grade points earned, and the grade point average. Courses repeated at another institution have no effect on the grade point average at UW-Green Bay.

MINIMUM AND MAXIMUM CREDIT LOADS

A graduate student in good academic standing may register for any number of credits up to a maximum of 12 credits per semester. A student will not be allowed to register for credits in excess of 12 if he or she does not have prior written permission from the associate dean of graduate studies to carry an overload. Any course adds that would have the effect of exceeding the maximum will not be processed if prior overload permission has not been granted.

A student may register for or reduce a program below nine credits in a semester with the understanding that for certain purposes

he or she will then be considered a part-time student. A student who reduces graduate credit level below nine should consult the appropriate offices about implications for financial aid, government benefits, and other programs with credit load eligibility stipulations.

Maximum Credit Load for Probationary Students

The maximum semester credit load is nine credits for a graduate student on probation.

COURSE ADDS

After registering a student may add other courses to his or her program if the addition does not exceed the maximum credit load limitation and is completed before a specific deadline for additions. 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 allow students time 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 decision to drop. Therefore, lack of feedback in the form of grades on papers or examinations is not acceptable to justify a late drop.

The drop deadline is intended to stimulate a student to weigh carefully all of the important considerations and to do this as early as possible. 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 the students participating in the

course. The six-week deadline for 15-week semester courses provides an adequate opportunity to make drop decisions.

The phases of the course drop policy are:

Through the eighth day of classes of a 15-week semester—

- student may drop any course without the instructor's signature
- permanent records show no drop

Ninth day of classes through sixth week—

- course appears on permanent record with the symbol W (withdrew) or DR (dropped)

Seventh through 15th weeks—

- no official drops allowed; WF grade or F appears on transcript

For terms or classes of a shorter duration than 15 weeks, established pro rata deadlines are shown in the *Timetable*.

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 twelve-week deadline, if one of these specific criteria can be verified:

1. The student has serious mental or physical health problems verified by a physician's or professional counselor's statement.
2. There is a death or prolonged serious illness in the immediate family, also verified by the family physician.

An appeal with appropriate documentation should be submitted to the associate dean of graduate studies.

WITHDRAWAL FROM THE UNIVERSITY

A student who desires to withdraw from all academic course work at any time after enrolling must file an official withdrawal form at 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 twelfth week of a semester or the beginning of the fifth 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 will be given unless official withdrawal procedures are followed.

A decision to withdraw should be given careful consideration in terms of academic retention policy, veteran's benefits, Social Security benefits, financial aid and other situations that have specific prohibitions against withdrawals.

PASS-NO CREDIT GRADING

This special grading is permitted and required only for internships (797) and thesis writing (799) courses/credits at the graduate level. All other graduate credit courses must be taken on a regular graded basis.

AUDIT ENROLLMENT INFORMATION

With the permission of the instructor, a graduate student may audit an undergraduate course if space is available after undergraduate students who have enrolled for credit have been accommodated. Conditions and requirements for class participation are completely at the discretion of the course instructor. A student enrolled for credit may change to audit status for grading purposes, at any time up to the course drop deadline. Audited credits do not count in determining credit completion requirements or for any program or benefits eligibility status. Audited credits do count toward maximum credit load limitations. Any changes from audit status for grading purposes, must be completed within the course add period.

GRADUATE INDEPENDENT STUDY

Faculty approval signatures are required before registering for or adding independent study credits. Graduate faculty status includes only assistant, associate, and full professors, and full-time lecturers. Regular semester add and drop deadlines apply to independent study. Special 500-600-level numbered undergraduate courses do not require an independent study card. Graduate special (GSP) students are not eligible for 798 work except in the 006 area; graduate

specials are also not eligible for 797 or 799 work.

SPECIAL PETITIONS

A special petition is a formal written request for an exception to normal rules, regulations, and procedures and may be granted or denied. The rules, regulations, and requirements of the graduate program are the result of recommendations from the graduate faculty board of advisers and the Academic Actions Committee. Some rules may originate from legislative statutes or Board of Regents actions.

Exceptions to academic rules and regulations are granted if the petition states unforeseeable extenuating circumstances and relevant facts that fall within general parameters recommended by the Academic Actions Committee, and approved by the dean of professional studies and outreach. The associate dean of graduate studies is responsible for reviewing the petition. If a petition is denied, the student has the right of further appeal to the Academic Actions Committee.

Students contemplating an appeal should consider:

1. Are the relevant facts and dates clearly stated and documented?
2. Are the extenuating circumstances cited of an unforeseeable nature?
3. Are relevant recommendations from the instructor included, if this is appropriate?
4. Do the statements distinguish between needs and wants?
5. Is the educational rationale for the request stated?

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.

OTHER RULES

In matters not covered by the graduate academic rules and regulations as specified in this catalog, the graduate program follows rules and regulations for the undergraduate programs and courses at UW-Green Bay.

Academic Year 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	1999-00	2000-01	2001-02*
Classes begin	Sept. 2	Sept. 5	Sept. 4
Thanksgiving recess begins	Nov. 25	Nov. 23	Nov. 22
Classes resume	Nov. 29	Nov. 27	Nov. 26
Classes end	Dec. 16	Dec. 15	Dec. 14
Final exams begin	Dec. 17	Dec. 18	Dec. 17
Final exams end	Dec. 23	Dec. 22	Dec. 21
Commencement (Saturday)	Dec. 18	Dec. 16	Dec. 22
SPRING SEMESTER			
Classes begin	Jan. 18	Jan. 16	Jan. 22
Spring recess	March 11-19	March 10-18	March 16-24
Classes resume	March 20	March 19	March 25
Classes end	May 8	May 7	May 13
Final exams begin	May 11	May 10	May 16
Final exams end	May 17	May 16	May 22
Commencement (Saturday)	May 20	May 19	May 25
INTERSESSION			
Classes begin	May 22	May 21	May 28
Memorial Day recess	May 27-29	May 26-28	May 25-27
Last day of classes	June 16	June 15	June 21
SUMMER SESSION			
First day of classes	June 19	June 18	June 24
Last day of classes	July 28	July 27	Aug. 2

* Tentative dates; subject to change.

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