## 1983-85 Catalog UW-Stevens Point <br> Undergraduate/Graduate

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The University of Wisconsin-Stevens Point is accredited by:

American Chemical Society American Dietetics Association American Home Economics Association American Speech and Hearing Association National Association of Schools of Music Society of American Foresters The North Central Association of Colleges and Secondary Schools

This catalog presents a statement of policies, programs, procedures, regulations, and information as of May 1, 1983. These are subject to change without previous notice. Any information, deletion, or revision is effective on its approval by the appropriate committee, council, senate, governing board, or other agency or official of the University of Wisconsin System or of the University of Wisconsin-Stevens Point.

Gilbert W. Faust, Catalog Editor
Marilyn Thompson, Publications Editor

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Photography: Educational Media Service, News and Publications Office, the Pointer and Horizon staffs.

On the cover, two students are shown enjoying the solitude of a 200-acre natural area on campus. Hiking trails, a visitor's center and fitness stations are in Schmeeckle Reserve. Photograph by John Morser.


Chancellor Philip R. Marshall


Schmeeckle Reserve north of campus


The Learning Resources Center


Computer-generated mosaic mural on the Natural Resources Building

## The University

The Student's Responsibility

All colleges and universities establish certain requirements which must be met before a degree is granted. These requirements concern such things as courses, majors and minors, and residence. The Student Assistance Center, the members of the faculty, the directors and deans will always help a student develop an appropriate schedule of courses to meet these requirements, but the individual student is responsible for fulfilling them. At the end of the student's course of study, the faculty decides whether the student will receive a degree. If requirements have not been met, the degree will be refused until such time as they have been met. For this reason it is important that each student become familiar with the requirements, and continue to keep informed about them during the extent of a university career.

It is also necessary in the general administration of a university to establish policies and the regulations and procedures by which these policies may be carried out. It is important that students understand these policies and know the regulations and procedures they are expected to follow.

The catalog is therefore presented not only to enable prospective and enrolled students, and others, to learn about the University of Wisconsin-Stevens Point, but to state policies, requirements, regulations, and procedures in such a way as will be helpful to students as they go through the University.

## Institutional Information

This catalog provides information for all prospective and enrolled students regarding the institution, its policies, programs and faculty, and financial assistance available. The student is referred to the appropriate items in this catalog for specific information about financial aid, rights and responsibilities of the student, expenses, refunds, degrees, buildings, faculty, vocational placement, retention of students, and office hours of University personnel.

Personnel are available at several offices to assist students in obtaining information about the University and about financial assistance. They may be reached by telephone or in person, by appointment, during normal office hours:

## Financlal Ald:

Philip C. George, Director
Office of Student Financial Aid
105 Student Services Bullding - (715) 346-4771


Admissions and Academic Information:
John A. Larsen, Director
Office of Admissions
102 Student Services Building - (715) 346-2441

## Career Services:

Dennis E. Tierney, Executive Director for Student-Life Support Services
134 Main Building - (715) 346-3136
General Information:
Helen R. Godfrey
Assistant Chancellor for University Relations
210 Main Building - (715) 346-2481
University Center Information Desk
042 University Center - (715) 346-4242

## The University of WisconsinStevens Point

The University of Wisconsin-Stevens Point is a unit of the University of Wisconsin System, governed by a Board of Regents which operates under Chapter 36 of the laws of the State of Wisconsin.

## The Board of Regents (May 1983)

David E. Beckwith, Milwaukee; Ruth C. Clusen, Green Bay; Catherine Conroy, Milwaukee; Edith N. Finlayson, Milwaukee; Ody J. Fish, Hartland; M. William Gerrard, La Crosse; Herbert J. Grover, Madison; Camilla R. Hanson, Mellen; Frank H. Heckrodt; Appleton; Robert P. Knowles, New Richmond; Ben R. Lawton, Marshfield; Frank L. Nikolay, Abbotsford; Russell J. O'Harrow, Oconto Falls; Paul R. Schilling, Milwaukee; Gerard E. Veneman, Port Edwards; Marylin M. Zirbel, Bristol.

## The University System

Robert M. O'Neil, President Joseph F. Kauffman, Executive Vice President Reuben H. Lorenz, Vice President and Controller Robert W. Winter, Vice President for General Services

## The University

## Chancellor's Office

Room 207, Main Building
Phone: (715) 346-2123
Philip R. Marshall, Chancellor
Patrick D. McDonough, Vice Chancellor for Academic Affairs
Adolph J. Torzewski, Assistant Chancellor for Business Affairs
Frederick A. Leafgren, Assistant Chancellor for Student Life
Helen R. Godfrey, Assistant Chancellor for University Relations
David L. Coker, Assistant to the Chancellor/ Computing Information Services, Planning and Budget
William Baily, Assistant to the Chancellor for Affirmative Action and Equal Employment Opportunity

The University opened in the fall of 1894 as Stevens Point Normal School. In succeeding years the Normal School became Central State Teachers College (1926), Wisconsin State College (1951), Wisconsin State University-Stevens Point (1964), and in 1971, the University of Wisconsin-Stevens Point. About 9,000 students were enrolled in the fall of 1982.

Stevens Point, a city of about 24,000 in a metropolitan area of approximately 58,000 , is located in Central Wisconsin, 110 miles ( 176 kilometers) north of Madison at the intersection of US highways 10 and 51. It is served directly by Greyhound Bus Lines and is also readily accessible by air via Republic Airlines and Midstate Airlines through the Central Wisconsin Airport at Mosinee.

## The System Mission

The University of Wisconsin-Stevens Point shares in the mission of the University of Wisconsin System.

The mission of this system is to develop human resources, to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses, and to serve and stimulate society by developing in students heightened intellectual, cultural, and humane sensitivities; scientific, professional, and technological expertise; and a sense of purpose. Inherent in this broad mission are methods of instruction, research, extended education, and public service designed to educate people and improve the human condition. Basic to every purpose of the system is the search for truth.

## The Core Mission

As an institution in the "University Cluster" of the University of Wisconsin System, the University of

Wisconsin-Stevens Point shares the following core mission with other universities of the cluster:

1. Providing baccalaureate degree level and selected graduate programs within the context of its approved select mission.
2. Meeting the educational and personal development needs of students through effective teaching, academic advising, and counseling, and through university-sponsored cultural, recreational, and extracurricular programs.
3. Providing a first priority emphasis on teaching excellence.
4. Providing a base of liberal studies needed as the foundation for university degrees in the arts, letters and sciences, as well as for specialized professional and occupational degrees at the baccalaureate level.
5. Providing a program of pre-professional curricular offerings consistent with the University's mission to serve the needs of citizens in its geographical area.
6. Supporting a commitment to scholarly activity integral to and supportive of instructional programs and teaching excellence.
7. Meeting the off-campus instructional and continuing education needs of citizens in the campus service region and (as appropriate to unique program capability) in the state within the context of coordinated statewide planning of outreach programs.
8. Providing public service to the surrounding region both as a cultural center and a source of problem-solving expertise.
9. Participating in regional consortia and interinstitutional relationships in order to maximize educational opportunity for the people of the region effectively and efficiently through the sharing of resources.
10. Supporting a commitment to serving the special needs of minority, disadvantaged and non-traditional students.

## The Select Mission

The select character and purpose of the University of Wisconsin-Stevens Point can be further delineated by the following statements of its particular goals and responsibilities:

1. The University should offer a broad base of fine arts and liberal studies and degrees both for the development of students and upon which education in the professional fields can be built.
2. The University should provide undergraduate programs in communicative disorders, teacher education, home economics, paper science, and natural resources with emphasis on the management of resources.
3. The University should offer basic graduate programs in teacher education, communicative dis-
orders, natural resources, home economics, and select areas clearly associated with its undergraduate emphasis and strength.
4. The University should be dedicated to implementing quality undergraduate instruction through new and innovative methods including the Learning Resources Center and self-directed study programs.
5. The University should develop appropriate interinstitutional relationships within the region.

## Goals

It is the objective of the University that each student, regardless of curricular program, develop a concept of the signal value of knowledge to the human race, and acquire competence in skills of rigorous thinking. The student should also achieve an appreciation of the perspective, judgment, and wisdom of a liberally educated person, attain a higher level of creativity, and know the importance of physical fitness. Hence, the goals of the University are stated as characteristics of the individual student, the learner, as each becomes an educated person.

1. The student communicates effectively by developing the skills of observing, listening, and reading critically, and of writing and speaking with clarity and force.
2. The student has an understanding of history and of the forces and ideas which have affected human societies, including the student's own; the student is aware of the problems and achievements of various civilizations; and recognizes that all fields of knowledge are interrelated.
3. The student shows concern for the ideals of democracy and social justice and for responsibility to one's fellows.
4. The student attains competence in a particular field of endeavor.
5. The student appreciates and values the life of the mind as shown by: the ability to think clearly and rationally; the development of intellectual curiosity; and an understanding of and participation in the arts, philosophy, and scientific disciplines.
6. The student is able to think clearly about what he or she, a person, is; and about his or her life's purpose-thus reflecting the beginnings of wisdom.
7. The student develops an awareness that learning is a lifelong process and increasingly becomes self-directed in continuing the educational process.
To achieve the mission of the University, emphasis is given to liberal arts and general education studies, the foundation upon which well-conceived professional and pre-professional curricula are based.

## Equal Opportunity/Affirmative Action

The University of Wisconsin-Stevens Point is committed to equal educational opportunity. This means that all campus educational programs and activities are equally available to all students. The faculty, administration, and staff are in the process of identifying all practices which may discriminate against students on the basis of sex, race, color, handicap, or national origin in recruitment and admission, curriculum, extracurricular activities, and supportive services. In addition, the University is committed to help students recognize that women and minorities can serve in all fields of human endeavor.

It is the policy of the University of Wisconsin-Stevens Point not to discriminate on the basis of sex, race, creed, color, national origin, religion, handicap, or age in its educational programs, activities, or employment policies, as required by State and Federal legislation. Inquiries regarding compliance with all State and Federal legislation may be directed to the Equal Opportunity/Affirmative Action Office, 213C Main Building, phone (715) 346-2002.
Anyone who feels he or she has been discriminated against, or who believes a University practice is discriminatory, is invited to contact William Baily, Jr., Assistant to the Chancellor for Equal Opportunity and Affirmative Action.

## Office Hours

The administrative offices at the University are open year-round from 7:45 a.m. to 11:45 a.m. and from 12:30 p.m. to $4: 30$ p.m. Monday through Friday. When classes are in session, the Cashier's Office, the Registration and Records Office, and Mail Services are also open during the noon hour. All offices are closed on Saturday.


## The Office of Academic Affairs

Room 202, Main Building

Phone: (715) 346-4686
Patrick D. McDonough, Vice Chancellor for Academic Affairs and Dean of Faculties
Donna Garr, Assistant to the Vice Chancellor Programs
Douglas D. Radtke, Assistant to the Vice Chancellor Personnel
The Vice Chancellor (Dean of Faculties) is the chief academic officer of the institution, providing leadership and support to faculty and students in developing and administering instructional programs.
The Academic Affairs Office assesses the academic mission and promotes instructional improvement and curricular development. The office is involved in all faculty and academic staft personnel decisions: appointment, retention, promotion, and salaries. It is supported in these roles by the several colleges and the Academic Support units.

## The Deans of the Colleges

Fine Arts, Paul M. Palombo
Graduate School, David J. Staszak
Letters and Science, H. Howard Thoyre
Natural Resources, Daniel O. Trainer
Professional Studies, Arthur L. Fritschel
Curricula for the various degrees offered in each of the colleges are described later in this catalog under the appropriate headings.
The Departments of Instruction operate under the jurisdiction of the appropriate deans, and are listed, with their chairs, under that heading later in this catalog.
Additional programs are outlined in later sections of the catalog: extension, evening, and Saturday classes (Continuing Education and Outreach): summer sessions; International Programs; and the Cooperative Education Program.

## The Dean of the Learning Resources Center and of Academic Support Programs

Burdette W. Eagon<br>Room 202, Learning Resources Center<br>Phone: (715) 346-2029

Keith F. Lea, Director of Technical Services Allen F. Barrows, Director of Public Services
The James H. Albertson Center for Learning Resources houses a print and non-print collection of

over 510,000 items. It holds journal files of over 1,800 titles which offer backfiles coverage on several titles into the 19th century. The Library is an official federal and state documents depository containing a rich selection from 1950, including an extensive congressional series from the year 1825 and a complete microprint edition of United Nations publications. In cooperation with the State Historical Society, the Library maintains an Area Research Center for 12 counties in north central Wisconsin. Another strong area of collection is the large and diversified files of national and state newspapers.
Interlibrary Loan, one of the services of the Library Reference Department, borrows books and sends for photo-duplication of materials for faculty and students.
The Instructional Materials Center houses a collection of basic texts used in the public schools plus a collection of study prints, maps, globes, study kits, simulation games, art objects, and sources for locating other instructional materials. The non-print collection for the University is also housed in the IMC. This includes holdings in 16 mm films, filmstrips, transparencies, tapes, and single concept films.
A Student-Faculty Media Production Lab is maintained as a self-instructional, do-it-yourself facility for faculty and students wishing to produce their own materials.
Experimental Courses and Innovative Programs are described in the section of the catalog entitled COURSES OF INSTRUCTION. They provide latitude and flexibility in course development.

## Archives

William G. Paul, Archivist
Room 012, Main Building
Phone: (715) 346-2586
The function of the University Archives is the collecting and preserving of the records of the University's life and activities in all their relationships.

## Native American Center

Mary Alice Tsosie, Coordinator/Director
Sharon Cloud, Development Specialist
Room 206, Student Services Building
Phone: (715) 346-3576
The Native American Center was established to enable American Indian tribes to draw upon the resources of educational institutions to provide community services. Its goal is to further Indian selfdetermination, and demonstrate that institutions of higher education, agencies, and organizations can share resources to expand education and training opportunities for tribal people appropriate to their local conditions and needs. The Center coordinates the resources and efforts of UW-SP and other institutions to provide technical assistance, consultants, workshops, training, or credit-bearing educational programs, and works with tribal people to plan, design, and deliver those services. It also provides a forum for tribes and institutions to share ideas and concerns, maintaining a close relationship with the Great Lakes Inter-Tribal Council, Inc.

## Student Assistance Center

Vera Rimnac, Director
Room 103, Student Services Building
Phone: (715) 346-3361
The primary service of this unit is that of reviewing academic exceptions and waivers for undergraduates, and advising those students who have not declared a major. General questions regarding student involvement and concerns as they are related to classroom experiences may be answered in this office. Academic assistance services are coordinated for the Academic Advising Center, new-student orientation, disabled students, the "non-traditional" student, emergency withdrawals from a class or from the University, attendance concerns, screening of grade appeals, advising, and requests for academic exceptions, such as: overloads, late drops or adds, late registration, repetition of courses, change from credit to audit, substitution of courses for the general degree requirements, and waiver of the "40-credit" rule.

The Academic Advising Center is staffed by faculty members who are well versed on academic matters and who have access to curricular information about the programs offered on this campus. It provides advising service for students who have not declared a major. The Center is located in Room 106 of the Student Services Building. Telephone 346-2321 for information and appointments.

# New-Student Programs 

John L. Timcak, Director<br>Room 103, Student Services Building<br>Phone: (715) 346-3361

New-student orientation is a two-day orientation program in which new first-year students and their parents are expected to participate.
The program is designed to assist the new student in adapting to university life as quickly and as easily as possible; to know the University, its customs and traditions, its curriculum, its policies, its personnel (both student and faculty), and its student life.
Opportunities will be provided for each new student to meet with an academic adviser and prepare a class schedule for the first semester. Students will also have opportunities to meet upperclass students as well as other new students in small discussion groups.
A special program has been planned for parents, with emphasis placed on that which will be of most interest to them. Presentations on such topics as student health programs and health insurance, financial aid opportunities, housing and dining programs, and parent-student understanding are made by the faculty and staff of the University.
While on campus, the students and their parents will be housed in residence halls and will use the dining facilities at the University.
Non-traditional students are those who have experienced a break in their education or who now wish to begin a collegiate education and are over nineteen years of age. Orientation sessions are offered at the beginning of the fall and spring semesters to assist such students and to familiarize them with the campus. They are urged to call or write to the Office of New-Student Programs for information regarding course selection, entrance requirements, financial aid, and any other problems which may be keeping them from enjoying a university experience.
Disabled students: The University does not discriminate on the basis of handicap in regard to admission and access to programs or activities. Information concerning program access to all University majors, minors, and courses, as well as physical access to all campus buildings is available upon request. All segments of the University are in compliance with Section 504 of the Rehabilitation Act of 1973.
This office provides individual assistance in areas of counseling, housing, academic advising, and tutoring. It is highly recommended that the student and the Director meet for the purpose of an individual assessment prior to the student's first semester of classes. For further information write or call the Office of New-Student Programs.

## Writing Laboratory

Mary K. Croft, Director
Room 306, Collins Classroom Building
Phone: (715) 346-3568
The Writing Laboratory is the "Write Place." Assistance with all writing needs: essays, reports, reviews, research papers, theses, as well as poems, short stories, plays. Helpful handouts. Browsing books. Composing coffee. Talented Tutors.

## Reading and Study Skills Laboratory

Randall P. Peelen, Director
Room 026, Learning Resources Center Phone: (715) 346-4477
The laboratory is available to all students. Services include one-to-one assistance in (a) developing reading speed and comprehension; (b) developing successful study habits; and (c) working out reading or study-related problems. The lab may be taken for credit (Psychology 101), or on a non-credit basis.


## The Office of Business Affairs

Room 212, Main Building<br>Phone: (715) 346-2641<br>Adolph J. Torzewski, Assistant Chancellor for Business Affairs

Major functions of the Office of Business Affairs and their directors include:
Richard B. Rothman, Budget Analyst Ronald Lostetter, Controller and Financial Services Harland H. Hoffbeck, Physical Plant Roland Juhnke, Personnel and Payroll Alan R. Kursevski, Protective Services Gerald L. Burling, Purchasing and Risk Management John F. Sundstrom, General Services

## Parking

Limited parking facilities are available for faculty, staff, and students (both resident and commuting). To park in any of the University parking lots, it is necessary to display a parking permit or decal on the vehicle. Application for the decal should be made at the Office of Protective Services, 001 George Stien Building. After the application is approved, the decal may be purchased at Protective Services. Assignments for faculty, staff, and students are made in order of seniority. Decals and permits are not honored in metered areas.
For persons (faculty, staff, students) who will have a vehicle on campus for a short period of time, a temporary permit may be purchased for that period.

## Protective Services

The Protective Services Department is responsible for campus security and safety, and for the enforcement of campus regulations including parking. The office is located on the far north side of the campus in the George Stien Building, and operates 24 hours a day, seven days a week, year-round. Students are urged to contact Protective Services in the case of emergencies, such as theft, sickness, injury, fire, etc. Call extension (346) 2368. The department also maintains the Campus Armory for the storage of student firearms. Students must supply their own padlocks to secure their weapons within the armory.

## Telephones

The Telephone Communications Office is responsible for the operation of an estimated 1,500 telephones on campus for faculty, staff and student usage. Switchboard operation, installations and changes, repairs, and billing are coordinated by this department which is located in the George Stien Building.


## Transportation

The University fleet consists of 24 vehicles-vans, station wagons, sedans, and a Blazer. These vehicles are available to faculty, staff, and students who are on official University business. Reservations for vehicles are made on a first come, first served basis. All drivers must have a valid driver's license and have an acceptable driving record. Students or volunteer drivers must complete the Authorization Application Form and submit it to the Transportation Office to be processed and submitted to Central Risk Management at least two working days prior to the scheduled trip. Each application must meet the guidelines set by the State's administrative policy. Vehicles are parked in Lot H, east of the Maintenance and Materiel Building and will be available at the time stated when the reservation was made. The office is located in room 101 of the George Stien Building, 1925 Maria Drive. When the Transportation Office is closed, keys and packets are available at the Protective Services Office in the lower level of the Stien Building.

## Buildings and Facilities

Old Main, which opened in 1894, has been remodeled and the east and west wings have been removed. Now in its original structure, the building houses the University administration which includes the Chancellor's Office, Business Affairs, University Relations, Budget, International Programs, Academic Affairs, Development and Alumni, Personnel Services, Continuing Education and Outreach, UW Extension, Placement, Graduate Office, News Service, Archives, Financial Operations and Controller, Purchasing, Student Employment Office, the Small Business Development Center, and the Founders Room. Old Main is located at 2100 Main Street.

Delzell Hall, the second dormitory to be built on campus, is an administrative and service center housing Student Life, Health Services, Counseling Services
and the Day Care Center. Delzell Hall is located on Fremont Street at High Street.

Nelson Hall was opened in 1916 as the first dormitory on campus in what was then the State Normal School System. It is again housing students after being used for administrative purposes for several years. Nelson Hall is located on Fremont Street across from Old Main. It also houses the Women's Resource Center.

The Byron B. Park Student Services Building is located on Fremont Street just north of Old Main. It houses the offices of Admissions, Registration and Records, Student Financial Aids, Computing Service, Military Science, PRIDE, Student Assistance Center, Academic Advising, and the University Credit Union.
The George Stien Building, located on Maria Drive between Isadore and Reserve Streets, houses the heating facilities for the entire University. Protective Services and Parking are located in the lower level while the offices of the Director of General Services and the Transportation and Telephone offices are located in the upper level of the front building. The power plant facilities are in an adjoining building.
University Archives, located in the basement of Old Main, maintains the historical records of the University, including a collection of University and faculty publications and a files of the minutes and proceedings of faculty meetings.
The Schmeeckle Reserve, 186 acres of native landscape encompassing the north end of campus, also includes a 24 acre lake. With the aid of a LAWCON grant, trails, a nature center, a shelter, and other education aids have been developed.

The Communication Arts Building, formerly the Gesell Institute, and prior to that the Campus Laboratory School, now houses the communication department along with University Telecommunications and the Campus Radio Station. The building is located on Reserve Street between Old Main and the University Center.
Located on Reserve Street a few blocks north of Old Main, the Science Building houses the chemistry, geography and geology, mathematics and computer science, physics, paper science, and psychology departments. It features a Foucault pendulum, planetarium, observatory, observation deck, facilities for radiation research, weather panel with remote recording instruments, a cartographic reproduction center, a synoetics laboratory, and an operating room for experimental psychology.
The Joseph V. Collins Classroom Building is located on Fourth Avenue at Isadore Street. It houses the business education, economics, English, foreign language and comparative literature, political science,
and sociology and anthropology departments, along with general classrooms and faculty offices.
The building housing the School of Health, Physical Education, Recreation, and Athletics is located at the corner of Fourth Avenue and Reserve Street just north of the Science Building. It includes the Berg and Quandt Gymnasiums, an indoor practice area, swimming pool, handball courts, classrooms, and other specialized facilities.
The College of Fine Arts Building is located between the Franklin Street Mall and Portage Street. It houses the departments of art, theatre arts and dance, and music. Major features include the Edna Carlsten Art Gallery, the Peter J. Michelsen Concert Hall, and the Warren Gard Jenkins Theater. Also included are art studios, music studios, music practice rooms, and rehearsal rooms variously equipped for band and orchestra, choir, theater, opera, and dance.

The College of Natural Resources Building located on the Franklin Street Mall opposite the Memorial Forum, houses the College of Natural Resources and the biology department. In addition to the offices, laboratories, and research faciliies, the building features an electron microscope, an indoor pond with live birds, greenhouses with different types of environments, and various collections, including a herbarium collection.

The College of Professional Studies Building, located on Fourth Avenue between the Science Building and the Joseph V. Collins Classroom Building, houses the communicative disorders, education, home economics, and history departments. In addition to general classrooms, it provides special facilities for home economics laboratories, the Center for Communicative Disorders, and the Gesell Institute.
The James H. Albertson Center for Learning Resources is located at the hub of the academic area on Reserve Street between Portage and Franklin Streets. It houses the coordinated services of the Library, Documents, Area Research Center, and Instructional Media.
The Maintenance and Materiel Building, located on Maria Drive, houses the maintenance shops for each of the trades. The offices of Physical Plant, and Engineering and Drafting are also located here, as well as a large Central Stores facility.
The former Home Management House, located on Main Street at Reserve, houses the Suzuki Institute.
The Water Resources Laboratory is a specialized research center, located off-campus in the Town of Plover and shared by the biology department and the College of Natural Resources. It houses laboratories such as stream beds, fish tanks, and aquariums.

## The Office of Student Life

Lobby, First Floor, Delzell Hall

Phone: (715) 346-4194
Frederick A. Leafgren, Assistant Chancellor for Student Life
Robert Baruch, Assistant to the Assistant Chancellor
Robert M. Nicholson, Assistant to the Assistant Chancellor (on leave)
Oliver (Bud) Steiner, Executive Director of StudentLife。Administration
Dennis E. Tierney, Executive Director of Student-Life Support Services

## Admission

John A. Larsen, Director
Russell Lundquist, Assistant Director
Catherine Glennon, Student Status Examiner
Room 102, Student Services Building
Phone: (715) 346-2441

## Entrance Requirements for Freshmen

Freshman applicants must meet the following minimum requirements to be considered for admission:
A. Graduation from a recognized high school or its equivalent with at least 16 credits (4 years).

1. A recognized high school is one which either is accredited by a regional accrediting association or state university, or is recognized or accredited by a state department of public instruction or its equivalent.
2. An applicant who has not graduated from a recognized high school must provide evidence of satisfactory completion of the requirements for a high school equivalency certificate or a diploma from a recognized high school, school system, or State Department of Public Instruction, based on the General Education Development examination or the Wisconsin High School Equivalency Examination or other established criteria.
B. A minimum of ten credits must be presented from those academic fields listed in C. below.
C.

| Subject | Min. Cr. <br> Required | Min. Cr. <br> Recommended |
| :--- | :--- | :---: |
| English | 3 | 4 |
| Social Studies | 2 | 3 |
| Foreign Language | 0 | 2 |
| Mathematics | 1 beyond Gen. Math | 3 |
| Natural Science | 1 | 2 |
| Speech | 0 | .5 |

For those persons interested in pursuing a col-

lege major which requires considerable study in mathematics or the natural sciences, 3-4 credits of mathematics and a minimum of 3 credits in the natural sciences are recommended.
These are minimal requirements for some professional programs and for programs which are math or science intensive. Depending upon the individual student's preparation, additional college credits may be required in some instances to meet graduation standards in those fields of study.

A high school credit represents a norm of five class periods per week in one field of study for a school year of 36 weeks. Students admitted on the basis of an equivalency certificate or diploma or GED examination shall be considered to have fulfilled those minimum requirements.
D. All applicants for admission are encouraged to take the ACT or SAT exam. Those admitted under VI and VII below are required to present scores from either the ACT or SAT exam.

Students ranking at or above the 30th percentile of their high school graduating class will be admitted if requirements $A, B$, and $C$ are satisfied.
E. In addition to meeting the requirements stated above, students ranking from the 20th thru the 29th percentiles of their graduating classes will be admitted provided that the ACT composite score is at least 17. (The equivalent SAT score will be accepted.)
F. Students ranking below the 20th percentile (lower one-fifth) of their high school graduating class who do not qualify for admission on the bases listed above, may establish eligibility for admission on probation by:

1. Taking the ACT exam and achieving a composite score of at least 17 (or its equivalent on the SAT exam), AND
a. Enrolling in a Summer Session at the University of Wisconsin-Stevens Point or at any regionally accredited college or university, where (s)he must carry six semester hours or more and earn an overall grade point ratio of $1.5(\mathrm{C}=2.0$ on a four-point base) or better; or
b. Enrolling in the second semester of the academic year at the University of Wis-consin-Stevens Point where (s)he must carry 12 or more semester hours and earn a grade point ratio of 1.5 or better.
G. Applicants who do not qualify according to the above requirements may appeal to the Director of Admissions for special consideration. Students lacking rank-in-class or test score qualifcations may be considered if, on the basis of other factors, they appear to have a reasonable probability of success. Particular consideration in admission will be given to applicants who have been out of school for two or more years, service veterans with at least 180 days of active duty, and students who have been disadvantaged as a result of substandard education, family income level, or ethnic background.
H. Requirements for out-of-state students are the same as for resident students.

## Application for Admission

A high school graduate who wants to enroll in the University should write to the Director of Admissions for an application form, which should be given to the high school principal or counselor when properly filled out. The applicant should request the principal or counselor to send the form to the Admissions Office after adding a record of his credits. A student's eligibility to enroll will then be determined.
A student may make application for admission after October 1 of his senior year in high school. He should follow the procedure outlined in the preceding paragraph.
This University is authorized under federal law to enroll non-immigrant alien students

## Entrance with Advanced Standing

A student who has taken work at another college may enroll at Stevens Point with advanced standing. Such a student should follow the same procedure as entering freshmen (see above); and should also request that a transcript of credits be sent to the Director of Admissions from each college previously attended. Credits with a grade of D or better, earned at an accredited institution of college level, may be counted toward graduation, but not necessarily
toward a major, provided they fit the general pattern of the curriculum selected by the student.
Probation and suspension regulations of this University will be applied in determining the academic status of transfer students.
No more than 72 credits will be accepted from any two year college.
Credits transferred from County Teachers Colleges are applicable only in the Elementary Education curriculum.

If a prospective transfer student has been dropped for any reason by the institution he last attended, he is generally ineligible for admission to this University until he has been out of school for at least one semester following his first suspension or two years (four semesters) following his second suspension. Then he may make application for admission to the Director of Admissions. Each case is considered on its merits. If a student's academic record at another college is such that he would have been dismissed had the record been earned at Stevens Point, his admission is also subject to the rules indicated above, even though he was not dropped from the previous college.


Equivalency Table
This table relates the University Center System's courses to their equivalent courses at UW-Stevens Point.

* Please contact the Office of Admissions, UW-Stevens Point, for additional information regarding the transferability of these courses.

All courses will transfer to UW-SP unless otherwise indicated.

All credits earned at UW Center System campuses will transfer as lower division (freshman and sophomore) credits.


| Center | System | Stevens Point |  | Center System |  | Stevens Point |  | Center System |  | Stevens Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anthropology |  |  |  |  | 131 |  | 351 |  | 200 | See Dept. |  |
| Ant | 100 | Gen | Elect |  | 141 |  | 321 |  | 291 | See Dept. |  |
|  | 102 | Ant | 101 | Art | 151 |  | $341$ | Biological Sciences |  |  |  |
|  | 105 |  | 111 |  | 161 | Inst. | Res. 231 | Bac | 101 | Bio 333 |  |
|  | 106 |  | none |  | 171 | Art | $381{ }^{*}$ | Bac | 230 | Gen Elect* |  |
|  | 200 |  | 101 |  | 173 |  | none* |  | 299 | Bio 399 |  |
| Ant | 204 | Ant | 101 |  | 181 |  | 283 | Bot | 100107 |  |  |
|  | 222 |  | none | Art | 183 | Art |  |  |  | Nat. Res. 170 |  |
|  | 291 |  | none |  | 185 |  | 389 |  |  |  |  |
|  | 293 | Gen | lect |  | 187 |  | 383 | Bot | 116 |  |  |
|  | 299 | Gen | lect |  | 188 |  | 386 |  | 116 | Gen Elect* | ' |
| Ant | 301 |  | none | Art | $191$ | none* |  | 151 |  | (130* |  |
|  | 302 |  | none |  |  |  | none** |  |  | \& $160^{*}$ |  |
|  | 303 |  | none |  | 193 |  | none* | Bot |  |  |  |
|  | 304 |  | none |  | 201 |  | 236 | Bot | 152 | Bio $130^{*}$ |  |
|  | 308 |  | none |  | 202 |  | 336 |  |  |  |  |
| Ant | 311 |  | none | Art | 212 |  | 201342 |  | 231 | 210 |  |
|  | 314 |  | 339 |  |  | Art |  | 240 |  | Bio Elect |  |
|  | 322 |  | none |  | 219 |  | 399 | Bot | 250 | Bio 305 |  |
|  | 325 |  | none |  | 221 |  | 331 |  |  | \& 306 |  |
|  | 330 |  | none |  | 222 |  | 332 |  | 260 | 210 |  |
| Ant | 341 |  | none |  | 223 |  |  |  | 291 | 498 |  |
|  | 343 |  | none | Art | 224 | Art |  | 299 |  | 399 |  |
|  | 349 |  | none |  | 229 |  | 399 | Bot | 400 | Bio 342 |  |
|  | 351 |  | none |  | 231 |  | 351 |  | 450 | 355 |  |
|  | 353 |  | none |  | 232 |  | 352 | For | 120 | For 120 |  |
|  | 370 |  | none |  | 239 |  | 399 | Wil | 140 | Wil 140 |  |
| Ant | 400 |  | none | Art | 241 | Art | 322 | Nat | 170 | Nat 170 |  |
|  | 408 |  | none |  | 243 |  | 421 | Phs | 104 | Bio 285 |  |
|  | 440 |  | none |  | 245 |  | 421 |  | 170 | Gen Elect* |  |
|  | 450 |  | none |  | 247 |  | 421 |  | 202 | Bio 285* |  |
| Ant | 470 |  | none |  | 251 |  | 399371 |  |  | \& PE 271* |  |
|  | 545 |  | none | Art |  | Art |  | 203 |  | Bio 285* |  |
|  | 570 |  | none |  | 252 |  | 372 |  |  | \& PE 271* |  |
|  |  |  |  |  | 253 |  | 361 | Phs | 235 | Bio 285 |  |
| Art |  |  |  |  | 254 |  | 362 | Zoo | 101 | Bio 160 |  |
| Art | 101 | Art | 103 |  | 259 |  | 399 |  | 103 | Nat 170 |  |
|  | 102 |  | 104 | Art | $\begin{aligned} & 269 \\ & 279 \\ & 289 \end{aligned}$ | Inst. Res. 231* |  |  | 105 | Gen Elect |  |
|  | 103 |  | 303 |  |  |  | none* |  | 107 | Nat 170 |  |
|  | 111 |  | 101 |  |  | none |  | Zoo | 109 |  |  |
|  | 112 |  | 102 | Astronomy |  |  |  | 200 | 109 | or 101 |  |
| Art | 113 |  | 106 |  |  | See Dept. See Dept. |  |  | 116 | Gen Elect* |  |
|  | 121 |  | 331 | Ast | 100 |  |  |  | 140 | Wil 140 |  |
|  |  | or | 334 |  | 101 |  |  |  |  |  |  |


| Center System |  | Stevens Point |  | Center System |  | Stevens Point |  | Center System |  | Stevens Point |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 151 | Bio | $130^{\circ}$ |  | 103 |  | $101 *$ | English \& Literature |  |  |  |
|  |  | 8 | $160^{*}$ |  | 130 | Dra | 105 | Eng | 101 | Eng | 101 |
| Zoo | 152 | $\mathrm{BiO}_{8}$ | $130^{\circ}$ | Com | 131 | Dra | 126 |  | 102 |  | 102 |
|  |  |  | $160^{*}$ |  |  | or | 226 |  | 103 |  | none |
|  | 155 |  | 383 |  |  | or | 326 |  | 120 | Eng | 240 |
|  | 160 |  | 210 |  |  | or | 426 |  | 200 |  | 200 |
|  | 170 | Bio Elect |  |  | 150 | Com | 125 | Eng | 201 | Eng | 250 |
| 200 | 203 | Bio | 383 | Com | 160 |  | none |  | 203 |  | 253 |
|  | 234 | PE | 271 |  | 201 | Com | 210 |  | 204 |  | 353 |
|  | 235 | Bio | 360 |  | 202 |  | none |  | 205 |  | none |
|  | 237 |  | 372 |  | 203 | Com | 331 |  | 209 |  | none |
|  | 250 |  | 305 |  | 204 |  | 331 | Eng | 211 |  | none |
| Zoo | 260 | Bio | 210 | Com | 206 | Com | 331 |  | 213 | Eng | 211 |
|  | 277 |  | 377 |  | 220 |  | none |  | 214 |  | 212 |
|  | 291 |  | 498 |  | 230 | Dra | 130 |  | 215 |  | 213 |
|  | 299 |  | 399 |  | 231 |  | none |  | 216 |  | 214 |
|  | 430 |  | 370 |  | 232 | Dra | 171 | Eng | 217 | Eng | 361 |
| Zoo | 505 | Bio <br> Wat | 379 | Com | 234 | Dra | 140 |  | 218 |  | 362 |
|  | 515 |  | 481 |  | 266 | Com | 336 |  | 219 |  | none |
|  | 516 |  | 483 |  | 267 |  | none |  | 227 | Eng | 333 |
| Business \& Economics |  |  |  |  | 268 |  | none |  | 251 |  | 312 |
|  |  |  |  | Com | 298 |  | none | Eng | 253 |  | none |
| Bus | 110 | Eco | none ${ }^{\text {372 }}$ |  | 299 | Com | 499 |  | 255 | Eng | 314 |
|  | 194 |  | none |  | 349 | Dra | none |  | 290 |  | none |
|  | 201 202 | ACC Acc | 210 310 |  | Computer Science |  |  |  |  | 298 |  | 385 |
| Bus |  | Acc |  |  |  |  | CPS | 101 | Eng | 299 | 399 |  |
|  | 204 |  | Bus Ed 307 |  | CPS | 100 |  |  |  |  |  |  |
|  | 242 |  |  |  | \& |  | none <br> 101 <br> 102 <br> 112 <br> none <br> none | Foreign Languag |  |  |  |
|  |  | $\&$ | 117 | CPS CPS |  |  |  | CPS | Fre |  | Fre | 101 |
|  | 243 | Eco | 330 |  |  |  |  |  | 118 |  | 102 |
| Bus | 297 |  | none | 111120 |  |  |  |  | 119 | For L | ang 100 |
|  | 299 |  | none |  |  |  |  | 201 |  |  |  |  |
| Eco | 374 |  | none | CPS | 211 |  |  | CPS | Fre | $\begin{aligned} & 202 \\ & 215 \\ & 219 \\ & 221 \\ & 222 \end{aligned}$ | Fre 212 <br> For Lang 100 |  |
|  | 101 203 | Eco | $\begin{aligned} & 100 \\ & 200^{\circ} \end{aligned}$ |  | 211 213 | $\begin{aligned} & 112 \\ & 110 \end{aligned}$ |  |  |  |  |  |  |
| Eco | 204 | Eco | $201 *$ |  | 231 | Math | 360 | Fre |  |  | 340 |
|  | 230 |  | 360 |  | 250 |  | $\begin{aligned} & \text { none } \\ & 112 \end{aligned}$ |  |  |  | 341 342 |
|  | 243 |  | 330 |  | 251 | CPS |  | Fre | 223 | Fre | 370 <br> 313 <br> 314 <br> none <br> none |
|  | 250 |  | 315 | CPS | 252 | CPS | 113 |  | 225 |  |  |
|  | 271 |  | none |  | 253 |  | none |  | 226 |  |  |
| Eco | 297 |  | none |  | 254 | CPS | 110 |  | 275 |  |  |
|  | 299 |  | none |  | 255 |  | none |  | 276 |  |  |
| Chemistry |  |  |  | CPS |  | CPS | 302 none none | Fre | 277 | Comp | Lit 350 |
| Che | 100 | No Credit |  |  | 270 |  |  |  | 291 | Fre | 340 |
|  | 124 | Che | $100^{\circ}$ |  | 299 |  |  |  | 299 |  | 499 |
| Che | 125 | Che | $101 *$ <br> 105 <br> 106 <br> none ${ }^{*}$ | Education |  |  |  | Ger | 101 | Ger | 101 |
|  | 145 |  |  |  |  | Edu | $100$none | Ger | $\begin{aligned} & 118 \\ & 119 \\ & 201 \\ & 202 \\ & 21 \end{aligned}$ | For Lang 100 |  |
|  | 155 |  |  | Edu |  |  |  |  |  | For L |  |
|  | 203 |  |  |  |  | Edu | 100 |  |  | Ger | 211 |
| Che | 211 |  | none ${ }^{\text {- }}$ <br> Ec 253 |  | 251 |  |  |  |  |  |  |
|  | 233 | Home Che |  |  | 283 | Eng | 275* |  |  | For L | ang 100 |
|  | 244 272 |  | 248 <br> none* | Edu | 300 | Edu | $351$none | Ger | 216219221 | For Lang 100 |  |
|  | 290 |  |  |  | 330 |  |  |  |  | Ger | ang 100 340 <br> 340 |
| Che | 299 | Che | none* | Engineering |  |  |  |  |  |  |  |
|  | 343 |  | 225 |  |  |  |  |  | 222 |  | 340 |
|  | 352 |  | 228 | Egr | 100 106 |  | none |  | 225 |  | 313 |
|  | 363 |  | 226 | Gra | 102 |  |  | Ger | 226 | Ger | 314 |
| Communication Arts |  |  |  | Gra | 113 |  | none |  | 275 |  | 243** |
|  |  |  |  | 201 | Phy | $220^{\circ}$ |  | 276 | Com | $243^{\circ}$ |  |
| Com | 101 | Com | 299 |  | Mec | $\begin{aligned} & 202 \\ & 203 \end{aligned}$ | Phy | $\begin{aligned} & 221^{\circ} \\ & \text { none } \end{aligned}$ |  | 291 | Ger | 340 |
|  |  |  | 299 |  |  |  |  |  |  |  |  |




## Advanced Standing Test Programs

The University participates in two programs through which a student may receive credit and placement by examination. The programs are the Advanced Placement Program and the College Level Examination Program (CLEP). The International Baccalaureate Program is presently under consideration for credit award. Additional information in respect to specific examinations which are accepted may be obtained by writing to the Director of Admissions.
In addition, information concerning those tests accepted, as well as sample examinations and reading materials pertaining to certain specific areas, may be obtained from the Reserve Desk in the Learning Resources Center.

## Armed Services Cooperative Education Program

ASCEP is designed to assist personnel in the armed forces to develop a comprehensive file of educational experiences (USAFI, service training schools, correspondence courses, etc.) and to help simplify procedures for their admission to this University. Participants in this program can take advantage of the counseling service provided through the Admissions Office to help determine courses which may be taken while the student is in the service and which can be applied toward college degree requirements. Further information is available by writing to the Director of Admissions.

## Re-Entry of Former Students

Former students wishing to re-enter the University must request permission to do so from the Director of Admissions. If the student has attended another college or university since he last attended Stevens Point, a transcript from each must be filed before eligibility to return will be determined.

## Readmission of a Student Who Has Been Suspended

See "Readmission" under "Academic Work" in a later section of this catalog.

## Career Services Office

Dennis E. Tierney, Director

Room 134, Main Building
Phone: (715) 346-3136
To assist all students and alumni of the University in selecting their initial employment following graduation, and in locating promotional opportunities when desired, the following services are offered: (a) $\mathrm{Ca}-$ reer counseling open to all students from freshman to senior year, and alumni, covering areas such as supply and demand; interviewing techniques; sources of positions relating to interests, aptitudes,
qualifications, and preferences. (b) Initiation and periodic updating of placement file containing information pertaining to each graduating senior, including references and recommendations supplied by the candidate. (c) Compilation of credentials containing materials collected in placement file for employing officials. (d) Assistance in the written preparation and printing of personal and academic resumes. (e) Compilation and distribution of weekly vacancy lists containing career opportunities in teaching and nonteaching fields. (f) Coordination and scheduling of oncampus interviews for graduating seniors and alumni with employing officials. (g) Maintenance of current library of information and opportunities including employer literature, vacancy listings, vocational publications, graduate school catalogs and applications, and occupational handouts. (h) Distribution of special placement publications. Early use of these services is encouraged to maximize career choices.
Information regarding placement statistics is available from the Career Services Office.

## Counseling and Human Development Center

Dennis E. Elsenrath, Director
Room 304, Delzell Hall
Phone: (715) 346-3553
The Counseling and Human Development Center provides a special opportunity for you to develop greater self-awareness, and to acquire better decision-making, problem-solving, and interpersonal skills. The counseling program offers a variety of services including: personal, educational, and career counseling; special human development groups and workshops; alcohol education programs and numerous approaches to stress reduction.
Students seek individual counseling for a variety of reasons such as anxiety, academic stress, relationship problems, decision-making, loneliness, depression, sexuality conflicts, test anxiety and excessive dependency. The philosophy of the Counseling and Human Development Center is developmental in nature with an emphasis on helping you to learn more about yourself, your environment, and your relationship to your environment.
You may be interested in career exploration. Choosing a career field and selecting an academic major can be difficult decisions. The Counseling and Human Development Center provides career counseling, interest inventories, a career library and computerized career exploration for you to use in your pursuit of a career decision.
Our Alcohol Education Office has many functions including educational programming, diagnostic, testing, intervention and treatment service for the campus student community. As functions imply, we serve all
students through a variety of traditional and innovative programs and techniques which deal effectively with alcohol use and abuse. These programs and techniques are: residence hall/campus education programs, course offerings, diagnosis of alcohol problems, individual and group counseling for the recovering student, membership on the Alcohol Task Force and a support group for students of alcoholic families.
Special programs are offered each semester for students who are interested in assertive training, weight reduction, biofeedback training, stop-smoking groups, personal development groups, and stress reduction programs.
The psychological testing program is available to help you accomplish educational goals and objectives. Psychological tests are offered in order to aid the counseling process and to help you meet entrance requirements for special programs and graduate school. Major tests administered include: the American College Test (ACT), Graduate Record Exam (GRE), Miller Analogies Test (MAT), Law School Admission Test (LSAT), Graduate School Foreign Language Test (GSFLT), Admissions Test for Graduate Study in Business (ATGBS), and the College Level Examination Program (CLEP). Numerous other tests are administered. If you have a question about testing, please contact us.
All information discussed during counseling sessions is confidential. With the exception of a small fee for career interest testing and the computerized career exploration service, all other services are free to you as a student. Stop by for a visit, or call for an appointment.

## Office of Student Financial Aid

Philip C. George, Director
Room 105, Student Services Building
Phone: (715) 346-4771

## Application for Financial Assistance

Requests for financial aid from entering freshmen and transfer students will be considered only after a student has been officially admitted to the University.
An entering freshman should make application for financial aid on the Combined Admissions-Financial Aid Application form (Part II). This form along with a financial disclosure statement must be completed and mailed as directed. The Family Financial Statement (FFS) is the preferred financial disclosure statement for UW-Stevens Point. However, the alternate form, the Financial Aid Form (FAF) is also acceptable and may be submitted in place of the FFS. Normally, the student should submit the particular document (FFS or FAF) which is preferred by the first-choice school.

After the FFS is mailed (after January 1), the student will receive a Pell Grant Student Aid Report (SAR) at the home address. This report must be sent directly to the Office of Student Financial Aid for further processing. Both the Combined Admission-Financial Aid Application and the FFS are available at the high school guidance office or the UW-SP Office of Student Financial Aid.
A transfer student must also have a Financial Aid Transcript completed at each school previously attended and sent to the Office of Student Financial Aid at the University, from which forms are available on request.
A continuing student in the University may secure application materials from the Office of Student Financial Aid. Returning undergraduate students who have previously received aid will automatically be sent new application forms during the latter part of the fall semester. Any student not receiving these forms may pick them up at the office.

In all cases, the financial aid application form and the FFS provide the data needed for a decision as to the student's eligibility and the type of assistance to be proposed. A financial aid proposal will normally be mailed in May to each recipient outlining the amount and kind of aid he may receive. If there is a delay of federal appropriations, the formal proposal may not be sent until mid-summer. However, in this case a letter of eligibility for aid will probably be mailed in May or when the completed application is received. A signed copy of this proposal must be returned by the deadline date to indicate acceptance or rejection of the proposal. Failure to return the proposal by the deadline is tantamount to a rejection.
Financial aid is not automatically renewed for succeeding years. The student must file a new application for each year or summer session.

## Need Analysis

A need analysis is performed by the financial aid officer using the information submitted on the FFS and the other application materials. The resulting financial need is determined by subtracting the expected family contribution (calculated from such factors as income, assets, number of children, family expenses, and student's summer job savings).

## Meeting the Need

Personnel in the Office of Financial Aids, with the aid of a computer, utilize the aid program resources at their disposal to meet each student's need according to overall and specific eligibility requirements. For many programs there are not enough funds to serve all potentially eligible students, and in that case it is necessary for the institution to set priorities as to who should receive the aid. Students with the highest
demonstrated need, or above-average student loan indebtedness are given a priority for campus-based grant, waiver, and work aid. The specific eligibility requirements are listed below. Except where otherwise noted, the student must carry at least a halftime load to maintain eligibility (Undergrad: six semester hours; Graduate: five semester hours.) When aid is offered, it is assumed that the student is fulltime; the aid may have to be reduced if the enrollment drops to less than full-time status.

## Aid Programs Based on Need

## (1) Pell Grant

Eligibility is determined by the Pell Grant Administration from data submitted on the FFS. The student must be an undergraduate and must turn in an official Student Aid Report (SAR) before the grant can be disbursed. The amount of the award is determined according to the student's eligibility index (on the SAR) and the student's actual cost for room, board, and tuition. The award ranges up to $\$ 1800$.

## (2) Wisconsin Higher Education Grant (WHEG)

This grant is available to freshmen and upperclassmen in limited numbers. The value of each grant is variable depending upon need. The grant ranges from $\$ 100$ to $\$ 1800$ for an academic year. Grants are not automatically renewable. Awards are determined by the Wisconsin Higher Educational Aids Board.

## (3) Supplemental Educational Opportunity Grant (SEOG)

This grant is restricted by federal guidelines to exceptionally needy undergraduate students. The award may range from $\$ 200$ to $\$ 2000$ per year. There is a priority given to students with high indebtedness and/or need. The award is determined by a formula which considers need and other grants. Continuing grants also consider prior educational debt and class level in the award determination.

## (4) Wisconsin Talent Incentive Program (TIP)

This grant ranges up to $\$ 1800$ (in combination with the Wisconsin Higher Education Grant) and is restricted to Wisconsin residents of disadvantaged backgrounds for the freshman and sophomore years only. To be determined eligible, students must exhibit at least two qualities typically associated with being disadvantaged.

## (5) Wisconsin Handicapped Grant

To qualify a student must be legally deaf or blind. An award is made based upon need, and ranges up to $\$ 1800$ for up to five years. Application is made by completing an FFS and an HEAB Blind/Deaf Certification form signed by the student's physician. The certi-
fication form is sent to the Higher Educational Aids Board.

## (6) Indian Student Assistance

The Higher Educational Aids Board and the Bureau of Indian Affairs (BIA) or tribe cooperate in a program of awarding state and federal funds to eligible Indian students. In order to be eligible, the student must be one-quarter degree Indian blood of a tribe or land recognized by treaty by the United States or Canadian government, as determined by an appropriate Indian agency. The student must be a Wisconsin resident to receive a state portion of the grant and must be able to show financial need by filing an FFS. The annual maximum state grant is $\$ 1800$. The annual state amount is based on the degree of need, often less than the maximum, and usually matched with a tribal grant. It is calculated to replace loan and employment aid which might otherwise have been offered had the Indian grant not been available.
A special Indian Scholarship Application must be complete and sent to the appropriate BIA agency (or tribe) for certification of degree of Indian blood.

## (7) Wisconsin Tuition Waivers

A limited number of students from outside Wisconsin may qualify for a partial waiver of the non-resident fee. Such waivers are considered for non-residents during the regular application review and vary in amount. The amount is based upon need, prior debt, class level, and other grants the student is eligible to receive. Selected foreign students are awarded a waiver of all fees except those assessed for room and board and on-campus charges. Full-time attendance is required.

## (8) College Work Study Programs

Students who have a need and who desire employment may be offered a job under this program. A priority is given to students who have the highest needs and/or the highest educational indebtedness. The amount of the authorized earnings (control figure) is determined according to the current need remaining after grants have been considered, and the student's willingness to work. Incoming freshmen are usually offered no more than $\$ 800$ for the academic year. If funds are available, summer employment is offered to students who request such aid and who plan to attend summer school or continue their studies the following fall. A priority for summer employment is given to people with exceptionally high needs, and if the student is not attending summer school, a minimum of $60 \%$ of the wages earned is expected to be saved to help defray educational expenses.

## (9) National Direct Student Loans

Students who need loan assistance to finance their education may be offered a loan from the National

Direct Student Loan Program. These loans are awarded to students with the highest demonstrated needs or to students with lower needs who cannot borrow from another need-based program (such as non-residents). Up to $\$ 1500$ may be borrowed annually by undergraduate students depending upon the student's need. The normal maximum loan, however, is $\$ 1250$ because of funding limitations.
These loans are interest free until six months after the student leaves school; interest is then charged at $5 \%$ during the repayment period which may not exceed 10 years and six months. A cancellation feature applies to those who enter teaching for special duty, such as teaching the handicapped or teaching in economically deprived areas, and for military service.

## (10) Wisconsin State Direct Guaranteed Student Loans

Under the state loan program, students may borrow up to $\$ 2500$ per academic year as undergraduates, but not more than $\$ 12,500$ total for the undergraduate years. An additional $\$ 5000$ can be borrowed per year by graduate students. In no case may students borrow more than $\$ 25,000$ for their college careers. These loans are available to Wisconsin residents who have been denied an educational loan by a private lender (bank, credit union, savings and loan association) and whose family adjusted income (parents' and student's) does not exceed $\$ 30,000$, or based upon demonstrated need (either by analysis of the FFS or by the Federal needs test).
Students are typically offered these loans to fill any remaining need if they cannot be aided from other sources (such as grants, a job, or another loan). Normally no more than $\$ 1500$ is offered per year from this program, in order to encourage low student indebtedness. If a student's costs cannot be met with the $\$ 1500$ maximum loan, it is sometimes possible (if there is unmet need) to increase the loan beyond the normal limit; this must be negotiated between the student and a financial aid counselor.
For students who have borrowed under the program prior to January 1, 1981, the interest rate of $7 \%$ is paid by the federal government while the student remains in school. The student begins paying the interest nine months after leaving school. For new borrowers after January 1, 1981, the interest rate is $9 \%$, and payments begin six months after leaving school.

## (11) Wisconsin Private Lender Guaranteed Loans

Under the private lender component of the guaranteed loan program, students apply directly to the private lending institution (bank, credit union, savings and loan association). Eligibility requirements, loan limits, interest rates, and repayment provisions are
the same as for the Wisconsin State Direct Guaranteed Student Loans (listed above).

## Other Assistance - Not Based on Financial Need

## (1) Plus Loans

Parents of dependent undergraduate and graduate students may borrow up to $\$ 3,000$ per year under the PLUS loan program. Independent undergraduates who are ineligible for the Guaranteed Student Loan program may also borrow from this source, but their limit is held to $\$ 2,500$ per year.
Payments begin 60 days after receipt of the loan, and interest begins to accrue when the loan is written at an annual rate of $12 \%$. The loans are secured from private lenders.

## (2) Wisconsin Veterans Benefits

The Wisconsin Department of Veterans Affairs provides educational grants to veterans for service which was performed at specified times. Applications for these grants are available at the Registration Office. The amount of the grant is $\$ 200$ (for unmarried veterans) and $\$ 400$ (for married veterans) for the academic year.
For further information on Veterans programs, see the section on Veterans Benefits later in this catalog.

## (3) Army ROTC Scholarships

ROTC scholarships are available to qualified students in Military Science. The scholarships pay for college tuition, textbooks, laboratory fees, and other purely academic expenses. Scholarship students also get a tax-free subsistence allowance of $\$ 100$ a month for up to 10 months of each school year that the scholarship is in effect. Scholarships are awarded on a nationwide competitive basis, with four year scholarships being awarded to graduating high school seniors. Three-and two-year scholarships may be applied for by students who are participating in the ROTC program and by students who are not enrolled in the program. Scholarship recipients are required to accept a Regular Army commission as a Second Lieutenant and spend four years on active duty.
The Simultaneous Membership Program (SMP) is an option which allows a student to join the ROTC program and either the Army Reserves or National Guard. Under this option the student receives his/her commission as a Second Lieutenant after attending ROTC classes and Reserve or National Guard meetings for two years. While in the SMP the student receives a tax-free subsistence allowance for attending ROTC classes of $\$ 100$ a month for up to 10 months of each school year and receives Reserve or National Guard pay of approximately $\$ 86$ a month for attend-
ing their monthly meetings. In addition, the National Guard will reimburse the student $50 \%$ of his/her tuition each semester he/she is in the SMP, as long as a " $C$ " average is maintained.

## (4) Other Campus Employment

Additional opportunities for employment on campus are available through the regular student assistance program and the university food service facilities. Interested students should contact individual department chairs and the university food service directly, or contact the Student Employment Office, where a number of community jobs are also listed. See the section a few pages later in this catalog.

## Continued Eligibility for Aid

Students must apply annually in order to be considered for financial aid, and the student's need is recalculated each year based upon the current financial circumstances of the family. Each year students who have demonstrated need are reconsidered for each type of aid outlined on the preceding pages, as long as they have not received more than the maximum number of dollars allowed.
The University of Wisconsin Board of Regents has established the policy that all students who are enrolled are considered to be in good standing and maintaining satisfactory progress. All students who fail to maintain satisfactory progress will be suspended according to the rules and regulations of the institution. (See the section of the catalog on ACADEMIC WORK.)

## Payment of Awards

(1) Student Employment. Students are paid bi-weekly after submitting an authorized time card through their employer to the Student Payroll Office. Checks are typically ready fot distribution about 11 days later and can be picked upat the Bursar's Office in the basement of the Student Services Building.
(2) All other aid (loans and grants). After the signed award package and all related materials are received by the Office of Student Financial Aid; procedures are initiated for writing checks. Aid checks usually arrive on campus about one month after all materials are complete. If available, these checks are distributed at the registration "checkpoint" and applied to the student's balance at that time.
If the aid check is not available by the first day of classes, the student will be sent a notice when it arrives on campus, or it may be applied to the bill if this arrangement has been set up. If a Wisconsin Loan is accepted as part of the award package, special supplementary forms must be completed which will be mailed at a later date. It may be wise to anticipate a delay in the processing of these forms as there is considerable manual handling involved.

Pell Grants are calculated assuming the student will be carrying a full-time ( 12 semester hours) load; if at Checkpoint the student is listed as carrying less than a full-time load, the award will be reduced and/or delayed. The student should be sure to submit two copies of the Student Aid Report (photocopies are not acceptable) to the Office of Student Financial Aid. This aid cannot be released without the copies on file.
Some students are selected for validation under the provisions of federal law. When this happens, the student is required to submit documentation (such as copies of tax forms) to validate data submitted on the financial disclosure statement. When a student is selected for validation, processing of financial aid must be stopped until the validation has been performed and any necessary corrections have been made.

## Terms of Loans

## A. Guaranteed Student Loan Program

Federal loan regulations require that the prospective students be well informed about collegiate career opportunities before borrowing.
(1) This catalog offers a good reference for students about the institution, its programs, faculty, and staff. In addition, all students are advised to seek career information in such specific areas as the starting salary for previously enrolled students and the percentage of students who obtained employment in such positions. This information is available in printed form from the Career Services Office.
(2) Loan Origination and Insurance Fees. A "loan origination fee" of five percent will be deducted from your loan. In addition, an insurance premium of one percent annually will be collected in advance to cover the period prior to the start of repayment.
(3) Interest. Normally, no interest is charged while the student attends school and up to nine months after termination of studies. When the repayment begins, it is at the full rate specified in the promissory note (7\% or 9\%). After January 1, 1981, new borrowers (not on the program previously) will be subject to a $9 \%$ interest rate and a six-month grace period.
(4) Changes in Name, Address, or Student Status. All changes in the name, address, or a student's status must be reported promptly to the lender. It is the student's responsibility to keep the lender informed of his student status and address at all times.
(5) Repayment. Although a loan may be prepaid at any time without penalty, repayment of the loan begins after the specified grace period following the date of graduation or withdrawal from school. The minimum annual repayment is $\$ 360$, payable in installments over ten years (unless, of course, making the minimum annual repayment pays off the loan in less time).

Repayment may be deferred while the borrower is a member of the Armed Forces, a volunteer in the Peace Corps or VISTA, (or similar organization) or for any period during which the student is pursuing a full-time course of study at an eligible school.
The following table shows the repayment of a $9 \%$ simple interest loan. This table will provide the student with a general idea of what he can expect the minimum monthly repayment to be as well as the total interest cost of the Guaranteed Loan. The student is expected to make minimum monthly repayments of $\$ 50$ until the loan is repaid. Higher monthly payments are necessary for larger loans. All loans must be repaid within 10 years.

| Principal <br> To Be | No. of <br> Months | Payment <br> Amount | Interest Owed |
| ---: | :---: | :---: | :---: |
| Repaid | An Repayment | Per Month | $\mathbf{9 \%}$ At Simple |
| $\$ 3,000$ | 120 | $\$ 38.01$ | $\$ 1,561.20$ |
| 4,000 | 120 | 50.68 | $2,081.60$ |
| 5,000 | 120 | 63.34 | $2,600.80$ |
| 6,000 | 120 | 76.02 | $3,122.40$ |
| 7,000 | 120 | 88.68 | $3,641.60$ |
| 8,000 | 120 | 101.36 | $4,163.20$ |

NOTE: If the borrower pays ahead, as is permitted, less interest will be charged. If the borrower falls behind, additional interest will accrue and be due: These are sample cases only as most accounts do not fall on even principal amounts. When the borrower is in military, Peace Corps or VISTA service, no interest is accrued on the account for up to three years or the period of service, whichever is shorter.

## B. National Direct Student Loan Program

Interest and Repayment. The borrower must sign a promissory note for the loan. Repayment at $4 \%$ interest begins 6 months after the borrower graduates or leaves school for other reasons. During the repayment period, the borrower is charged $5 \%$ interest on the unpaid balance of the loan principal. No repayment is required and no interest accrues when the borrower is in the Armed Forces, Peace Corps, VISTA, or similar organization. Interest and repayment are also suspended while the borrower attends, at least on a half-time basis, an accredited institution of higher education.
For a borrower who enters certain fields of teaching or military duty, a portion of the loan is cancelled. More information about these stipulations is available from the Financial Aids office.

The student is expected to make minimum quarterly repayments of $\$ 90$ (every 3 months) until the loan is repaid. Higher monthly payments are necessary for larger loans. All loans must be paid within 10 years. Below is a table showing the repayment of a $5 \%$ simple interest loan. This table will provide the student with a general idea of what he can expect in mini-
mum monthly payments as well as the total cost of interest.

| Principal <br> To Be | No. of <br> Years <br> Repaid | Payment <br> Repayment | Interest Owed <br> Per Quarter |
| :---: | :---: | :---: | :---: |
| $\$ 3,000$ | 10 | $\$ 95.49$ | at $5 \%$ <br> Simple Interest |
| 4,000 | 10 | 127.32 | 819.60 |
| 5,000 | 10 | 159.15 | $1,092.80$ |
| 6,000 | 10 | 190.98 | $1,366.00$ |
| 7,000 | 10 | 222.81 | $1,639.20$ |
| 8,000 | 10 | 254.64 | $1,912.40$ |

NOTE: If the borrower pays ahead, as is permitted, less interest will be charged. If the borrower falls behind, additional interest will accrue and be due. These are sample cases only as most accounts do not fall on even principal amounts. When the borrower is in military, Peace Corps, VISTA, or similar service, no interest is accured on the account for up to three years or the period of service, whichever is shorter.

## Student Employment Office

Helen N. Sigmund, Student Employment Specialist Room 131, Old Main
Phone: (715) 346-2174
The Student Employment Office administers the College Work Study (CWS) Program and the Job Locator and Development (JLD) Program.

The CWS Program, financed with 80 percent federal money and a 20 percent share from the University or other contracting agencies, provides jobs for eligible students who have an ascribed "financial need." Such eligibility is determined under the uniform methodology system by either ACT (American College Testing Program) or CSS (College Scholarship Service).
The purpose of the JLD Programss to identify parttime jobs, with local employers and to provide referral to such positions for all UW-SP students. Students in need of part-time employment in the Stevens Point, Wausau, Wisconsin Rapids, Marshfield, and Waupaca areas are encouraged to apply at the Student Employment Office.
All students are subject to the same basic conditions of employment regardless of the employment department or agency.

Every job has unique characteristics that cannot be detailed in a general policy statement. It is the responsibility of the employer, at the time of hiring, to outline the specific conditions of employment to which the student will be subject. These conditions should include: job description and duties, pay rate, responsibilities, rights, and any additional departmental personnel policies.

All students are paid on an hourly pay rate in accordance with the Student Employment Classification and Wage Rate Schedule, which is available at the Student Employment Office.
All financial aid recipients must have their eligibility for work determined by the Office of Student Financial Aid.
All campus-wide student employment policies pertaining to wages, hours worked, hiring procedures, and utilization of student labor at UW-SP are administered by the Student Employment Office.
Since student employment is part time, pay rates and personnel policies reflect this premise. Students may work 20 hours per week average over the period of enrollment (i.e. during summer school, fall or spring semester) while attending school. During vacation periods, between semesters, and during the summer when not enrolled in the summer session, they may work a 40-hour week.
Immigration Service regulations place certain restrictions on employment of some alien persons who are enrolled as students in educational institutions in the United States. Enrolled foreign students with an F-1 visa may work for the University only under the Regular Work Program at UW-Stevens Point. These students may obtain permission for off-campus employment from the Immigration Service through the Office of Foreign Students.

## Veterans Benefits

Information about veterans benefits may be obtained at the Registration Office, 101 Student Services Building, Phone (715) 346-4301.
Students attending school under the Gl Bill will receive monthly payments from the Veterans Administration according to the number of semester hours carried and the number of dependents.
"Semester hours" carried for GI Bill purposes exclude audited courses, and courses assigned Incompletes when the Incompletes remain for more than 12 months.
Veterans, enrolled full-time and participating in the Army ROTC program are eligible to receive the $\$ 100$ per month ROTC stipend or the ROTC scholarship in addition to their full GI Bill benefits.
VA Vocational Rehabilitation: Veterans having a 10\% or more service connected disability may be eligible for this program. The Veterans Administration provides a monthly subsistence payment and also pays for tuition, fees, and books. Applications are available at the Registration Office.
VA Work Study: Veterans enrolled full-time may apply to work up to 250 hours in a semester at $\$ 3.35 /$ hour. Applications are available at the Registration Office.

VA Tutoring Assistance: The VA pays up to $\$ 76 /$ month for tutorial assistance for eligible veterans. Maximum assistance is $\$ 911$. Applications are available at the Registration Office.
Wisconsin Veterans Economic Assistance Loan: Up to $\$ 3000$ at $3 \%$ interest is available for educational or other reasonable purposes. Applications are available through the County Veterans Service Office.
Wisconsin Veterans Vietnam Era Educational Grant is for Wisconsin veterans pursuring an undergraduate degree on a full time basis, and who have served on active duty during the period from August 5, 1965, to July 1, 1975. A minimum of 90 days active duty is required. Applications are available at the Registration Office.
Wisconsin Veterans Part-time Study Grant: Wisconsin veterans who served during a war-time period may be eligible for reimbursement of tuition, fees, and textbooks. Eleven credits or less for undergraduates will be considered part-time study. Graduate students may also qualify if they are enrolled for seven credits or less. Their federal GI Bill entitlement must have expired. World War I, World War II, Korean War, and Vietnam Era veterans can still utilize this program. Applications are available through the county Veterans Service Office.

## Scholarships and Awards

In addition to the grants and loans described above, numerous scholarships and awards are available.
For more information, contact the Director of Alumni Relations, the coordinator of the University's scholarship program.

## Office of Foreign Students

Marcus C. S. Fang, Director
Room 123, Delzell Hall
Phone: (715) 346-2611
The primary purpose of the Office of Foreign Students is to help foreign students become productive and contributing members of this academic community as they pursue their educational objectives. Specifically, personal assistance is provided through counseling, housing arrangements, regular newsletters, skills development programs, Host Family program, leadership seminars, the orientation program, and the handling of numerous legal (especially immigration) requiremeñts. Additionally, opportunities are provided for foreign students to utilize/develop their leadership skills through such special programs as the International Weekend, the International Dinner, the Speakers Bureau, and the Conferences of the National Association for Foreign Student Affairs. The Foreign Student Office also works closely with the International Club (whose membership is open to ALL students) in a joint attempt at facilitating greater understanding of the cultures of the homelands rep-
resented by the foreign students and of the cultures of the United States as represented by the American students.
Individuals interested in learning more about the activities of the foreign student program are encouraged to call the Office of Foreign Students.

## University Health Service and Lifestyle Improvement Program

Bill Hettler, M.D., Director
Second Floor, Delzell Hall
Phone: (715) $346-4646$
Delzell Hall is located directly west of
Hospital, on Fremont Street. The Univers
Service is open during the following ho

| Monday | 7:45 a.m. to $5: 00$ p.m. |
| :--- | :--- |
| Tuesday | 9:00 a.m. to $5: 00$ p.m. |
| Wednesday | $7: 45 \mathrm{a} . \mathrm{m}$. to $5: 00$ p.m. |
| Thursday | 9:00 a.m. to $5: 00$ p.m. |
| Friday | $7: 45$ a.m. to $4: 00$ p.m. |

Handicapped students requiring health services who are not able to present themselves at the University Health Service should call the Health Service during the hours listed and ask to talk to one of the health professionals. At that time arrangements will be made to meet the students' needs.
Emergency transportation can be arranged through the office of Protective Services, 346-2368. If there is a question of loss of life or limb or a threatening situation, please call the standard emergency number for the community, 911, and say, "I need an ambulance." During academic sessions, one of the university physicians is on call at all times. He or she may be reached through the St. Michael's Hospital Emergency Room, phone 344-4400 if the above sources are not available. The emergency room at St. Michael's Hospital is staffed 24 hours a day, year around, for emergency care. This is where students should go if they need to see a physician at hours or times when the University Health Service is closed.
The Health Service plans to offer up-to-date medical care. It also plans to offer the student an opportunity to develop the healthiest lifestyle possible. It encourages students toward higher levels of wellness during their careers here in Stevens Point. It invites the students to become partners in helping provide them with the best care possible. As a first step in forming this partnership, students are required to provide information about their current health status, past problems, future risks, and possible areas in which they would like to improve. This partnership is initiated in one of two ways: (1) Students may fill out a Lifestyle Assessment Questionnaire, which is sent to them at the time of admission to the University, and return it to the University Health Service with a check for $\$ 7.50$. The $\$ 7.50$ charge covers the cost of the
computer scoring of the Lifestyle Assessment Questionnaire and Lifestyle Improvement programming that will be offered to all students interested; or (2) Students may request a standard history or physical examination form from the University Health Service and have their own physician fill it out and return it to us. (At an average cost of $\$ 25.00$ per student.)
Medications including prescription drugs and immunizations are dispensed from the Health Service. This would include medication ordered by the University Health Service Staff or your own doctor if it is stocked by the Health Service pharmacy.
Allergy shots may be brought to the Health Service for storage and administration.
The cost of these services is met by a portion of the student activity fee and there is no additional charge at the Health Service except in cases of prolonged medication use or unusual laboratory tests. All students registered on the Stevens Point campus who have paid the activity fee and have their health questionnaires on file at the Health Service are eligible for care.
The following are NOT provided at the Health Service:

1. X-rays.
2. Hospital inpatient or Emergency Room care.
3. Weeknights and weekend emergency care.

Students are referred to St. Michael's Community Hospital for these services. This facility is located adjacent to the campus on Illinois Avenue at Prais Street and will bill students for care. It is, therefore, imperative that students be covered by insurance of their own or through their parents. An excellent policy is available from the Student Senate Office.
When you first come to the Health Service you may be seen by a nurse-practitioner or physician's assistant. These are highly trained individuals who specialize in college-age health. They will evaluate your problem and in many instances give you complete care. You may also be referred to one of the physicians or to other sources for care. Follow-up visits will usually be with the same staff member, although at any time you may request to see someone else.
Confidentiality is maintained at the Health Service because of the very private nature of many questions, tests, and treatments. This means your records, or any information regarding the reason for your visit, are not available to anyone, including faculty or parents. The only exceptions to this are (1) subpoena of records by a court, or (2) life-threatening conditions or actions.
In an effort to encourage adult-level communications, excuses for class absence are not written by the Health Service. Faculty may verify by phone that a student visited the Health Service on a particular day; however no information is given regarding diag-
nosis or treatment unless the student wishes to sign a waiver authorizing the release of information.
If you have any problems, suggestions, or would like an active role in the operation of the Health Service, check at the Health Service Office for information on membership on the Student Health Advisory Committee.
Should you be considering a career in the health field, you are invited to discuss this with one of the Health Service staff.

## PRIDE-Programs Recognizing Individual Determination through Education

John C. Messing, Director
Jim Vance, Associate Director
Room 203, Student Services Building
Phone: (715) 346-3828
The PRIDE Office has primary responsibility for, and coordinates University services for minority and/or educationally disadvantaged students. Formal programs include Academic Assistance to provide tutoring, advising, and other academic support services to any student; Ease-In for students who may not meet all regular admissions standards; Pre-Collegiate for entering educationally disadvantaged students; a federally funded Special Services for students with special educational and financial needs; and Advanced Opportunity for minority graduate students. An Upward Bound project serves American Indian high school students. Less structured activities and services provide assistance to minority students with social, academic, or financial problems, promote cultural events, and strive to increase university and community awareness of minority contributions and concerns.

## Residence Life

Robert E. Mosier, Director
Residence Life Management Team:
Fredrick S. Najjar, Director of Residence Halls Administration
Robert Baruch, Director of Student Conduct
Susan Mitchell, Assistant Director for Community
Development, Student Life and Programs
First Floor, Delzell Hall
Phone: (715) 346-2611
Students will find that the individual attention, counseling, programs, and facilities available in the residence hall can be of major assistance in establishing their university career on a firm foundation. Residence hall living is an integral and dynamic part of the total educational program.
The University regulation governing where students may live is as follows: Freshmen and Sophomore students are required to live In residence halls. Excep-
tions are made for married students, veterans, and students who reside with their parents. Students having attained junior standing (or more credits) or completed four semesters are eligible to select other housing accommodations if they desire. Students with a break of two years or more in their educational pursuit may apply at the Housing Office for a special exemption from the residency requirement. Housing, does not discriminate on the basis of race, religion, or national origin.
Staffed with professionally trained personnel, each residence hall represents a unique student community. The community, operating with its own elected student governing and programming bodies, assumes major responsibility for the direction and success of the year's activities. As a result, the residence hall becomes much more to the serious student than simply a place to sleep. It is both a living and a learning center. In a very real sense, it is a course of study in itself. Educational programs, social programs, athletic programs, and a wide variety of activities provide opportunities for students which contribute significantly to their total educational experience at this institution. The residence hall program is consistent with the objectives and goals established for students at this University.
Students living in residence halls are provided 14 or 20 meals per week at one of the residence centers. Residence hall contracts, which include room and board, are for the entire academic year. Juniors and seniors may request a semester contract. This option must be elected at the time the contract is signed.
A list of available off-campus facilities may be obtained from the Office of Residence Life. In addition, a free publication, "Living Off-Campus," is available there. This booklet describes the various housing options available in the city of Stevens Point. The office also offers counseling and referral services to students encountering difficulties in their off-campus housing arrangements.

## Student Conduct

Robert Baruch, Director
First Floor, Delzell Hall
Telephone: (715) 346-2611
University of Wisconsin System Student Disciplinary Procedures, Chapter UWS 17 of the Wisconsin Administrative Code, Rules of the Board of Regents of the University of Wisconsin System, were adopted in January, 1976. The University of Wisconsin-Stevens Point adopted institutional policies under these procedures, as Chapter UW-SP 17, shortly thereafter. Copies of this chapter, and of the entire Administrative Code as it pertains to the University of Wiscon-sin-Stevens Point, are available from the Office of the Director of Student Conduct upon request. In addition, copies are available at the following locations:
each residence hall desk; the Reserve Desk of the Learning Resources Center; the University Center Information Desk; and the office of each academic dean.
Students are encouraged to acquire or read a copy of Chapter UW-SP 17, since it sets forth what constitutes violations of appropriate conduct on the campus and at University activities. This chapter is considered part of the University catalog.
The University of Wisconsin-Stevens Point expects appropriate and responsible behavior from its students. Officers of the University become directly involved in student conduct disciplinary proceedings when actions of individuals or groups conflict with the welfare and integrity of the institution or disregard the rights of other members of the university community, including guests and visitors to the campus.
In addition, the Office of Student Conduct recognizes that it has a primary responsibility to protect the rights of students in matters of conduct and discipline. Students who believe their rights may have been violated, or who have questions concerning their rights, are invited to address their questions to theeDirector of Student Conduct, whose office is on the first floor of Delzell Hall.
Copies of Chapter UW-SP 17, "Student Disciplinary Procedures," and of the University of Wisconsin System Administrative Code, are available to students at no cost in the following locations: Office of Student Conduct; each Residence Hall Desk; University Center Information Desk; the office of each Academic Dean; and, for perusal, the Reserve Desk of the Learning Resources Center.

## Student Life Activities and Programs

John W. Jury, Director
University Center
Phone: (715) 346-4343
The Student Life Activities and Programs Office (SLAP) provides services and assistance to the University's recognized student organizations. Working side-by-side with the Student Government Association, SLAP encourages student involvement in out-ofclass experiences, provides leadership and organizational effectiveness training for student leaders, and offers technical programming assistance to the 150 student groups that create a diverse menu of extracurricular opportunities on campus. The SLAP Office works to coordinate and calendar the programs of the student groups as well as other student programs recognized or partially funded by Student Government, such as intramurals, the performing arts programs, and athletics. The office encourages students to work on, learn from, and participate in the varied activities on campus that provide a valuable adjunct to the formal curriculum.

## Student Government Association and Its Recognized Organizations

The Student Government Association is an elected representative body that develops student policy. recognizes meaningful student organizations, and allocates student activity fee money to organizations that are dependent on financial support. This organization also appoints students to university committees so that the student voice is present in all administrative and faculty decision-making. The SGA is the hub that stimulates the following organizations and activities,

## University Activities Board

UAB is an all-campus programming board composed of student committees that plan major live entertainment, video programming, leisure time experiences, such as mini-courses, travel programs, outdoor recreation. UAB also coordinates special events for campus, such as homecoming and winter carnival. UAB is located on the lower level of the University Center.

## Residence Life Programming

Nearly 20 student organizations exist related to residence hall living. Each hall has a governing programming council. Several all resident representative bodies exist to develop policy for residence hall students, and develop educational, cultural, social, and special event programming for the residence hall population.

## Association for Community Tasks

ACT is a group that provides an opportunity for students to serve the community in one of nearly 70 volunteer programs while receiving valuable training and skills that will transfer to their chosen career path. Whatever the students' interests, there are community needs and training available to help them succeed in the experience.

## Campus Leaders Association

CLA is a group of student leaders that provides various opportunities for officers of all organizations to learn or improve their leadership and personal effectiveness skills. They are also involved in an extensive awards program which recognizes outstanding achievements in university leadership.

## Fraternities-Sororities

Six social fraternities and sororities exist on campus. Representatives from each make up Inter-Greek Council which coordinates and aids in establishing policies related to the entire Greek system. For information about the specific fraternities and sororities on campus, consult the Office of Student Life Activities and Programs.

## Career Organizations

Approximately 35 organizations exist which are related to various career interests. Additionally, there are 15 honorary and professional fraternities on campus. For more information on any of the career organizations, please consult with the Office of Student Life Activities and Programs.

## Religious Organizations

The purpose of 15 student organizations is religious in nature. Some of the organizations are denominational support groups, while others have non-denominational appeal. Representatives from each group form the Inter-Faith Council which coordinates value oriented campus-wide programs. For more information on the University's religious organizations, please contact the Student Life Activities and Programs Office.

## Forensics Debate

Through the Department of Communication, students of undergraduate standing are offered the opportunity to participate in Inter-Collegiate Tournament experience in extemporaneous speaking, oratory, and debate.

## Special Interest Groups

A variety of special interest groups exist which promote greater awareness of a particular program, philosophy, or culture. Some examples of special interest groups on campus are: the Chess Club, "Trippers" Outdoor Recreation Club, minority groups, political organizations, an International Club, the Yearbook Production group, Environmental Council, and the Legal Society.

## Performing Arts

Many opportunities for performing are available through various fine arts programs. Each year there are five outstanding theatrical productions; student art shows are displayed at the Caristen Art Gallery, the Learning Resources Center, and the University Center. There are a number of mussic groups available ranging in nature from the University Marching Band to small group ensembles, and a large number -of recitals are performed each year in the Michelsen Concert Hall.
If you can only appreciate the performing arts, there is a series of about a dozen outstanding productions presented annually in the Arts and Lectures series; a number of traveling art shows are available through the year.

## University Newspaper

The Pointer, the University newspaper, is produced weekly by a student staff recruited by the student editor and advised by a faculty member. The Pointer is
the student voice on campus and gives the interested student an opportunity to learn and work in writing, editing, proof-reading, layout, advertising and photography. There are a variety of salaried positions. In addition, credit is available for students who elect to work under supervision of a Department of Communication faculty member.

## Intercollegiate Debate and Forensics

Under the sponsorship of the Department of Communication, participation in intercollegiate debate and forensics is open to all students in the University, on a credit or non-credit basis.

## Advertising Agency

The UW-SP student chapter of the American Advertising Federation maintains a student run advertising agency, Adventors, which prepares advertising for campus and town organizations, and participates in the national AAF student campaign competition. UWSP won the four-state district competition in 1980 and 1981.

## Radio, Film, and Television

Participation in various phases of radio and television is open to all students in the University. Under the sponsorship of the Department of Communication, study is available on either a credit or noncredit basis.
The University Radio Station, WWSP-FM, broadcasts daily to the Stevens Point area in stereo. As a noncommercial, educational station, 90FM provides opportunities for experience in administration, programming and production. Each semester 50 to 75 students assume active roles managing and operating WWSP-FM.
University Film Society is a student-sponsored organization working closely with faculty to develop greater campus-wide interest and knowledge in the film medium.
Student Experimental Television (SET) is also a student sponsored organization which produces weekly programming over the local cable television station. Students have an opportunity to produce, direct, and star in almost any type of program they wish to air.

## Internships in Communication

The Communication Department offers an internship program to its majors and minors. Students earn credit ( 1 to 8 ) for field experience with agencies related to the Communication curriculum and activities programs. Students have interned in broadcasting, journalism, graphics, public relations, advertising, radio and television production, and sales.

## Intercollegiate Athletics

Paul E. Hartman, Director
Room 122, Physical Education Building
Phone: (715) 346-3257
The University sponsors the following sports on an intercollegiate basis:
For men: football, cross country, golf, basketball, wrestling, swimming, track, baseball, tennis, ice hockey.
For women: cross country, volleyball, field hockey. tennis, basketball, swimming, track, softball.
The University holds membership in the Wisconsin State University Conference for men and in the Wisconsin Intercollegiate Athletic Conference for women. On a national level, membership is held in the Na tional Collegiate Athletic Association, and in the Na tional Association of Intercollegiate Athletics.
Athletes who fulfill the requirements established by the coaches and who are approved by the athletic committee are awarded an " $S$ " and a certificate. Those who have won a varsity letter become members of the "S" Club, an honorary organization from the standpoint of performance and function. The " S " Club provides athletic awards, stimulates interest in the intercollegiate athletic program, hosts the annual awards night, and participates in a variety of activities calculated to benefit the university community.

## Club Sports and Intramurals

R. Dale Schallert, Director

Room 107, Physical Education Building Phone: (715) 346-3397
There is increased interest in the club sport program which currently offers opportunities for competition in water polo, archery, soccer, rugby (men and women), judo, karate. This program will expand in direct proportion to the interest of the students.
An intramural program has been planned to provide competitive and non-competitive activities mainly for those students who do not participate in intercollegiate athletics. Intramural athletic teams may be formed by residence halls, fraternities, religious organizations, independent groups, etc. A wide range of activities is provided to meet the needs and interests of all students.
Intramural activities for men and women include: touch football; flag football; horseshoes; cross country; punt, pass, and kick; swimming; volleyball; racketball; foul throw; handball; basketball; indoor track; bowling; badminton; relays, and slow-pitch softball; tennis; archery; outdoor track. Many of these activities are co-educational.
Wings of residence halls compete all year for the allsports campus championship, and trophies and
awards are presented to winning teams and individuals.

## University Centers

Robert W. Busch, Director

University Center Administration
Phone: (715) 346-3201
The University Centers provide environments which promote human renewal, alternative teaching opportunities, and various special services for the students and the University staff. Programs and policy formulation of the University Centers is the responsibility of the student University Center Policy Board.

## The University Center

The University Center, located between Fremont and Reserve Streets, is a college community organized as a place for students, faculty, alumni and other friends of the University to gather, study, and share experiences. The center provides cultural, social, and recreational programs which supplement classroom experiences.
The University Center houses a variety of dining areas, a pub for social meetings, a Campus Information Center (carpooling, ticket sales, photocopying and duplicating, lost and found, check cashing, United Parcel, Wisconsin Public Service payments, and other services), facilities for mini-concerts, coffeehouses, movies and other entertainment.
The University Center also has a laundromat and lockers available for commuting students.
Middle Earth, on the lower level, has facilities for weaving, ceramics, photography, woodworking, and other leisure time activities.
Recreational Services features rental of outdoor equipment, a games room equipped with electronic games, billiards, and other table games.
A TYME machine provides students and others with 24 hour access to cash and electronic banking capability for almost all banking services needed by students.
The Materials Center and lounge area offer music listening, no-cost check out of calculators, newspapers and magazines, and audio visual equipment. A typing room is available at no cost in the same area.
The center also provides office space for many student clubs and organizations. Meeting space in the building is available for student organizations, and other university and community groups.

## Allen and DeBot Centers

Students living in the North campus residence halls enjoy the nearness of Allen and DeBot Centers. The two centers provide board plans for nearby residence halls, two snack bars featuring pizza and submarine sandwiches, study lounges, material centers
(music listening, no cost typewriter use, magazines and newspapers, and similar services).
Allen Center is also a scheduled Greyhound Bus stop for ticket purchase and passenger boarding and arrivals.
Student Managers on duty in both Allen and DeBot Centers maintain information centers that assist students who have questions about various campus functions and community services.

## The University Store

The University Store is located on the lower level of the University Center. It is owned and operated by the University, and is self-sustaining. Any profit from the operation of the Store is applied to the general cost of University Center operation.
The primary purpose of the University Store is to support the educational mission of the University

through the sale of books and other academic supplies, although a variety of non-academic merchandise is also offered for the convenience of students, faculty, and staff.
Among the services offered by the Store are: a U.S. Postal Substation; special order book service; calculator demonstrations; and ordering services for caps and gowns, graduation announcements, and class rings.
The textbook rental service, also operated by the University Store, offers the student the option of renting or purchasing required textbooks, with rental fees calculated on a per-credit basis. Additional operating policies for text rental can be found in the University timetable, and at the Text Services customer service desk.


## The Office of University Relations

Room 210, Main Building
Phone: (715) 346-2481
Helen R. Godfrey, Assistant Chancellor for University Relations
Gilbert W. Faust, Assistant to the Assistant Chancellor
This office was created to coordinate the many phases of outreach, including academic and service programs, as they pertain to the many communities with which the University works. These include education, business, industry, agriculture, environmental groups, local governments and service agencies, and the citizens of Wisconsin. The assistant chancellor is responsible for the coordination of special events, projects, and programs interacting with the University and others, the centralization of University recruitment efforts, and the administration of the following support programs.

## Alumni Relations

Kácen Engelhard, Director
W. Scott Schultz, Programs Coordinator

Room 201, Main Building.
Phone: (715) 346-3811
The Office of Alumni Relations promotes the welfare of the University by providing on-going services to the alumni and friends of the University. The Alumni Association, in its desire to contribute to the margin of excellence, (1) stimulates and encourages the alumni to maintain an active interest in UW-SP; (2) develops among the alumni a sense of responsibility to their school and to the broader aspects of higher education; (3) makes known alumni attitudes to the administration; and (4) accepts gifts to the UW-SP Foundation for the support of a wide variety of programs and scholarships.
The University's scholarship program is coordinated by the Director of Alumni Relations. The majority of the scholarship accounts are managed by the University of Wisconsin-Stevens Point Foundation, Inc. Approximately 250 awards are made annually.
The University annually allocates about $\$ 90,000$ and $\$ 100,000$ to incoming freshmen. During the school year $1983-84$, approximately $\$ 40,000$ will be awarded to incoming freshmen who have ranked in the top $10 \%$ of their graduating classes. In addition, many scholarships are for students in an established major and are administered by the award committees of their respective departments.
Students interested in scholarships should contact their high school guidance counselors or the office of


Alumni Relations at the University for additional information.

## Conference and Reservations

Holly L. Bembenek, Director. University Center, Second Floor Phone: (715) 346-2427

Facility reservations, excluding the academic timetable, for UW-SP are scheduled through this office.
Room reservations are taken for the University Centers, academic buildings and other campus grounds such as the Memorial Circle or an intramural field.

Requests for special support equipment such as audiovisual, chalkboards, easels are also coordinated through this office.
The office is staffed to assist and consult in the coordination of special meetings, workshops, conferences, and conventions. Student organizations and faculty-staff groups and organizations in which individuals of the University are members are encouraged to use these services in preparation for hosting special conferences. The coordination of food, housing (summers only), parking and other special needs is a function of this office.
Technical Services is a division of this office, phone 346-4203. Arrangements for technician assistance, sound systems, lighting systems, ushering, and loading personnel are coordinated and contracted through this office.

## Continuing Education and Outreach

Orland E. Radke, Director
Barbara A. Inch, Workshops and Conferences Mary B. Fleischauer, Off-Campus Credit Coordinator Room 103, Main Building
Phone: (715) 346-3717
The University offers evening classes in some 15 to 20 cities in Central Wisconsin. A good number of evening and Saturday courses are offered on-campus.

These courses are designed to meet the needs of adults wishing to continue or renew their educational experiences. Courses are offered at the freshman as well as the senior level and choices can be made from about forty different courses. Graduate courses are also available.

For a three credit off-campus course, classes generally meet once a week for 16 weeks, and each meeting lasts two and one-half hours. Fees are $\$ 36.55$ per undergraduate credit and $\$ 61.25$ per graduate credit. On-campus evening and Saturday classes are listed in the regular timetable. Fees for on-campus classes are $\$ 53.55$ per undergraduate credit and $\$ 78.35$ per graduate credit. (Fees quoted are for 1982-83 Wisconsin residents and are subject to change without prior notice.)
Students are billed for fees through the Business Office. Payments must be made as indicated on the invoice. There is a penalty for late payments. Books for undergraduates, where applicable, are included in the fee payment. Credits will be filed in the Registrar's Office at Stevens Point.

The following limitations are imposed on credits earned in evening, and Saturday courses, and each student is responsible for staying within these limitations:

1. Degree candidates must be formally admitted as students to the University of Wisconsin-Stevens Point. Application forms must be processed through the Admissions Office.
2. Students who are employed as full-time teachers shall be granted no more than four credits for correspondence, evening, and Saturday courses in any one semester. Exceptions to this policy must be approved by the appropriate academic dean.
3. Correspondence, evening and Saturday courses shall be counted as part of a student's study load if regularly enrolled in a college or university during the semester the courses are taken.
4. It is suggested that students consult an adviser for assistance in selecting courses.

For information on courses currently being offered, contact the office of the Director of Continuing Education and Outreach.

## Summer Sessions

The University provides the opportunity for summer courses from about mid-May to mid-August. Programs vary in length from one to eight weeks, and classes generally meet Monday through Thursday. A variety of courses is available at both the undergraduate and the graduate levels. High school graduates, not otherwise eligible for admission to the University, may establish eligibility on the basis of summer school attendance. The regular faculty provides the
instruction, and the full facilities of the University, including residence halls and the University Center, are available.

Each summer the Universities of Wisconsin sponsor and direct various summer session camp programs. Students should consult their adviser regarding the applicability of credits toward requirements in their curriculum.

A summer session timetable may be secured by writing to the Director of Continuing Education and Outreach.

## Educational Media Center and Telecommunications

Room 100, Communication Arts Building Phone: (715) 346-2647

The Educational Media Center, James E. Pierson, coordinator, has as its primary mission the design and production of materials for the support of classroom instruction and administrative activities.

University Telecommunications, Ronald G. Weseloh, coordinator, is responsible for providing facilities and staff to assist academic departments, administrâtve departments, and community groups in the areas of television. In addition, University Broadcasting, through extensive cablecasting of public affairs and educational programs, helps to extend the University's boundaries into the surrounding communities. A staff of producers, directors, and technicians is also available as consultants to assist the University community in utilizing the broadcast medium within the various academic areas.

## Museum of Natural History

Charles A. Long, Director
Room 428, College of Natural Resources Building Phone: (715) 346-2858

The Museum is located in the Learning Resources Building, and functions in research, teaching, and community service. The curators have trained and done research in their special disciplines, including entomology, ichthyology, herpetology, ornithology, mammalogy, anthropology, and botany. Numerous exhibits on natural history are housed in the Museum. The August J. Schoenebeck Egg Collection, one of the largest in North America, including eggs of the extinct or nearly extinct passenger pigeon, ivorybilled woodpecker, and whooping crane, is on display. Three dinosaurs, exotic birds and butterflies, Native American implements, and many Wisconsín animals are represented. Each month many school children, local citizens, and University students visit the museum, which is the foremost university museum of natural history in the state.

A minor in Museum Techniques is offered. See the entry in the section of the catalog headed COURSES OF INSTRUCTION.

## News and Publications

John E. Anderson, Director
Marilyn Thompson, Publications Editor
Room 116, Main Building
Phone: (715) 346-3548 and -3654
The Office of News and Publications disseminates information concerning the offerings and activities at the University through the mediums of newspapers, radio, television, and publications of all types. Publications include the university catalog, departmental brochures, booklets, and programs.
Special services include the release of news stories about students for their home town newspapers, scheduling of students and faculty members for appearances on area television programs, and publication of the UW-SP newsletter which is distributed each week, and the UW-SP Alumni News magazine which is produced twice a year.

## University Child Learning and Care Center

Susanne B. Sprouse, Director
Room 020, Delzell Hall
Phone: (715) 346-4370
The Center offers an opportunity for $21 / 2$ to six-year olds to grow and learn in the environment where
children develop according to their own unique abilities. The Center is open to children of UW-SP students, faculty, and staff members. Information is available during the regular school year by writing or phoning the Center. A summer program is also available.

## University of Wisconsin-Stevens Point Foundation, Inc., and Office of Development

Leonard L. Gibb, Director
201 Main Building
Phone: (715) 346-3811
The UW-SP Foundation, Inc., was established in 1965 as the fund raising arm of the University. A tax free, non-profit organization, the Foundation provides the conduit through which the University becomes an exceptional institution.
There are many areas in which the University needs help beyond that provided by state tax money. The Foundation serves that need by actively seeking gifts which will enhance academic programs, provide scholarship support, permit acquisition of property. and enhance services to the community.


## Student Expenses

Robert Stenson, Manager, Business Operations Room 008, Student Services Building Phone: (715) 346-4796
Anita Godin, Manager, Accounts Receivable Room 105, Student Services Building Phone: (715) 346-4796
Academic fees, per semester, are quoted for the 1982-83 school year and for the 1983 Summer Session, and are tentative as of this printing and subject to change.
"Special students" will be charged, for all courses taken, at the rate of the highest level course in which they are enrolled. Courses numbered 100 to 499 are undergraduate courses; 500 to 799 are graduate courses. Students admitted to the Graduate School must pay graduate fees.
Students whose fees are paid in full by agencies outside the University (Vocational Rehabilitation, National Science Foundation, Veterans Administration in certain cases, ROTC, Indian Scholarships, etc.) must have the notification of their eligibility sent to the Accounts Receivable Office by the first day of classes, in order that proper arrangements can be made for the student to attend classes without payment of the fees by the student.
The University Center Fee covers the mortgage on the University, DeBot, and Allen Centers. These buildings are a place for students to gather for relaxation, recreational activities, studying, and a myriad of other activities.
These buildings were built with student money-not with tax money.
The Student Activity Fee provides various activities and services for the student (e.g. athletics, intramurals, day care, legal aid, student newspaper) to broaden educational experience outside the classroom.
The Text Rental Fee supports the educational mission of the University by providing texbooks to students on a rental basis.

The Student Health Fee provides medical care to the student body, including such services as examinations, routine laboratory tests, dispensing of medications.
The United Council Fee is a mandatory fee collected for the United Council of UW Student Governments.

(Students 62 years of age or older taking audit courses, and students taking off-campus courses are exempt.) Students may receive a refund of this fee by writing to the United Council of UW Student Governments, Room 305, 1930 Monroe Street, Madison, WI 53711. United Council, consisting of representatives from all UW schools, lobbies on behalf of students and works for the system-wide improvement of student life and services.

The Facility Reserve provides funds in the event major maintenance (e.g. roof replacement) is needed in the residence halls.

The following tables list the fees in the various categories of students:

## I. Regular Session - UNDERGRADUATE - Wisconsin Students

| Credit <br> Hours | Fees | University <br> Center | Activity | Text <br> Rental | Student <br> Heath | United <br> Council | Facility <br> Reserve | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 34.75 | 5.00 | 5.30 | 1.80 | 5.95 | .50 | .25 | 53.55 |
| 2 | 69.50 | 10.00 | 10.60 | 3.60 | 11.90 | .50 | .50 | 106.60 |
| 3 | 104.25 | 15.00 | 15.90 | 5.40 | 17.85 | .50 | .75 | 159.65 |
| 4 | 139.00 | 20.00 | 21.20 | 7.20 | 23.80 | .50 | 1.00 | 212.70 |
| 5 | 173.75 | 25.00 | 26.50 | 9.00 | 29.75 | .50 | 1.25 | 265.75 |
| 6 | 208.50 | 30.00 | 31.80 | 10.80 | 29.75 | .50 | 1.50 | 312.85 |
| 7 | 243.25 | 30.00 | 31.80 | 12.60 | 29.75 | 50 | 1.75 | 349.65 |
| 8 | 278.00 | 30.00 | 31.80 | 14.40 | 29.75 | .50 | 2.00 | 386.45 |
| 9 | 312.75 | 30.00 | 31.80 | 16.20 | 29.75 | .50 | 2.25 | 423.25 |
| 10 | 347.50 | 30.00 | 31.80 | 18.00 | 29.75 | .50 | 2.50 | 460.05 |
| 11 | 382.25 | 30.00 | 31.80 | 19.80 | 29.75 | .50 | 2.75 | 496.85 |
| $12+$ | 418.00 | 30.00 | 31.80 | 21.60 | 29.75 | .50 | 3.00 | 534.65 |

## II. Regular Session - UNDERGRADUATE - Out-of-State Students

| Credit <br> Hours | Fees | University <br> Center | Activity | Text <br> Rental | Student <br> Health | United <br> Council | Facility <br> Reserve | Total |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | :--- |
| 1 | 132.00 | 5.00 | 5.30 | 1.80 | 5.95 | .50 | .25 | 150.80 |
| 2 | 264.00 | 10.00 | 10.60 | 3.60 | 11.90 | .50 | .50 | 301.10 |
| 3 | 396.00 | 15.00 | 15.90 | 5.40 | 17.85 | .50 | .75 | 451.40 |
| 4 | 528.00 | 20.00 | 21.20 | 7.20 | 23.80 | .50 | 1.00 | 601.70 |
| 5 | 660.00 | 25.00 | 26.50 | 9.00 | 29.75 | .50 | 1.25 | 752.00 |
| 6 | 792.00 | 30.00 | 31.80 | 10.80 | 29.75 | .50 | 1.50 | 896.35 |
| 7 | 924.00 | 30.00 | 31.80 | 12.60 | 29.75 | .50 | 1.75 | 1030.40 |
| 8 | 1056.00 | 30.00 | 31.80 | 14.40 | 29.75 | .50 | 2.00 | 1164.45 |
| 9 | 1188.00 | 30.00 | 31.80 | 16.20 | 29.75 | .50 | 2.25 | 1298.50 |
| 10 | 1320.00 | 30.00 | 31.80 | 18.00 | 29.75 | .50 | 2.50 | 1432.55 |
| 11 | 1452.00 | 30.00 | 31.80 | 19.80 | 29.75 | .50 | 2.75 | 1566.60 |
| $12+$ | 1584.00 | 30.00 | 31.80 | 21.60 | 29.75 | .50 | 3.00 | 1700.65 |

## III. Regular Session - GRADUATE - Wisconsin Students

| Credit <br> Hours | Fees | University <br> Center | Activity | Student <br> Health | United <br> Council | Facility <br> Reserve | Total |
| :--- | ---: | :---: | :---: | :---: | :---: | :---: | ---: |
| 1 | 61.25 | 5.00 | 5.30 | 5.95 | .50 | .35 | 78.35 |
| 2 | 122.50 | 10.00 | 10.60 | 11.90 | .50 | .70 | 156.20 |
| 3 | 183.75 | 15.00 | 15.90 | 17.85 | .50 | 1.05 | 234.05 |
| 4 | 245.00 | 20.00 | 21.20 | 23.80 | .50 | 1.40 | 311.90 |
| 5 | 306.25 | 25.00 | 26.50 | 29.75 | .50 | 1.75 | 389.75 |
| 6 | 367.50 | 30.00 | 31.80 | 29.75 | .50 | 2.10 | 461.65 |
| 7 | 428.75 | 30.00 | 31.80 | 29.75 | .50 | 2.45 | 523.25 |
| 8 | 490.00 | 30.00 | 31.80 | 29.75 | .50 | 2.80 | 584.85 |
| $9+$ | 551.00 | 30.00 | 31.80 | 29.75 | .50 | 3.00 | 646.05 |

IV. Regular Session - GRADUATE - Out-of-State Students

| Credit <br> Hours | Fees | University <br> Center | Activity | Student <br> Health | United <br> Council | Facility <br> Reserve | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 194.25 | 5.00 | 5.30 | 5.95 | .50 | .35 | 211.35 |
| 2 | 388.50 | 10.00 | 10.60 | 11.90 | .50 | .70 | 422.20 |
| 3 | 582.75 | 15.00 | 15.90 | 17.85 | .50 | 1.05 | 633.05 |
| 4 | 777.00 | 20.00 | 21.20 | 23.80 | .50 | 1.40 | 343.90 |
| 5 | 971.25 | 25.00 | 26.50 | 29.75 | .50 | 1.75 | 1054.75 |
| 6 | 1165.50 | 30.00 | 31.80 | 29.75 | .50 | 2.10 | 1259.65 |
| 7 | 1359.75 | 30.00 | 31.80 | 29.75 | .50 | 2.45 | 1454.25 |
| 8 | 1554.00 | 30.00 | 31.80 | 29.75 | .50 | 2.80 | 1648.85 |
| $9+$ | 1749.00 | 30.00 | 31.80 | 29.75 | .50 | 3.00 | 1844.05 |

## V. Summer Session 1983 - TOTAL FEES

|  | Wisconsin Students |  | Out-of-State Students |  |
| ---: | ---: | ---: | ---: | ---: |
| Credits | Undergraduate | Graduate | Undergraduate | Graduate |
| 1 | 47.05 | 71.20 | 144.05 | 204.20 |
| 2 | 94.10 | 142.40 | 288.10 | 408.40 |
| 3 | 139.95 | 212.40 | 430.95 | 611.40 |
| 4 | 182.60 | 279.20 | 570.60 | 811.40 |
| 5 | 225.25 | 346.00 | 710.25 | 1011.00 |
| 6 | 267.90 | 351.80 | 849.90 | 1016.80 |
| 7 | 267.90 | 351.80 | 849.90 | 1016.80 |
| 8 | 267.90 | 351.80 | 849.90 | 1016.80 |
| 9 | 267.90 | 412.80 | 849.90 | 1210.90 |
| 10 | 302.90 | 473.80 | 981.90 | 1404.80 |
| 11 | 337.90 | 473.80 | 1113.90 | 1404.80 |
| 12 | 372.90 | 473.80 | 1245.90 | 1404.80 |



## Determination of Resident or Non-Resident Status

The statute regarding the matter of the payment of additional fees by students who are not residents of Wisconsin is quoted below. It is the responsibility of the student to register correctly, as a resident or nonresident, under this law. Interpretation of this statute is the responsibility of the Director of Admissions. Any questions about it should be directed to him.
36.27 (2) NON-RESIDENT TUITION EXCEPTIONS. (a) Any adult student who has been a bona fide resident of the state for 12 months next preceding the beginning of any semester or session for which such student registers at a university or center, or any minor student whose parents have been bona fide residents of the state for 12 months next preceding the beginning of any semester or session for which such student registers at a university or center, or any minor student whose natural parents are divorced or legally separated who has resided substantially in this state during his years of minority and at least 12 months next preceding the beginning of any semester or session for which such student registers at a university or center, or any minor student who is an orphan and who has resided substantially in this state during his years of minority and at least 12 months next preceding the beginning of any semester or session for which such student registers at a university or center or whose legal guardian has been a bona fide resident for 12 months next preceding the beginning of any semester or session for which such student registers at a university or center, or any minor student under guardianship in this state pursuant to ch. 48 or 880 who has resided substantially in this state during his years of minority and at least 12 months next preceding the beginning of any semester or session for which such student registers at a university or center, is while he continues a resident of this state entitled to exemption from non-resident tuition, but not from incidental or other fees.
(b) Non-resident members of the armed forces and persons engaged in alternative service who are stationed in this state for purposes other than education and their spouses and children are entitled to the exemption under par. (a) during the period that such persons are stationed in this state.
(c) Any student who is a graduate of a Wisconsin high school and whose parents are bona fide residents of this state for 12 months next preceding the beginning of any semester or session for which the student registers at a university or center or whose last surviving parent was a bona fide resident of this state for the 12 months preceding his death is entitled to the exemption under par. (a).
(d) Any person who has not been a bona fide resident of the state for 12 months next preceding the beginning of any semester or session for which such person registers at a university or center, except as provided in this subsection, is not exempt from payment of the non-resident tuition.
(e) In determining bona fide residence at the time of the beginning of any semester or session and for the preceding 12 months the intent of the person to establish and maintain a permanent home in Wisconsin is determinative. In addition to representations by the student, intent may be demonstrated or disproved by factors including, but not limited to, filing of Wisconsin income tax returns, eligibility to vote in Wisconsin, motor vehicle registration in Wisconsin, possession of a Wisconsin operator's license, place of employment and selfsupport. Notwithstanding par. (a), a student who enters and remains in this state principally to obtain an education is presumed to continue to reside outside this state and such presumption continues in effect until rebutted by clear and convincing evidence of bona fide residence.

## Payment of Academic Fees

The University offers a Partial Payment Plan which provides for payments to be made in three installments. The charges which may be included are academic and segregated fees and any miscellaneous charges the student may incur.
Students choosing the partial payment plan must sign a Credit Agreement Application Card at the time of registration or when they go through "checkpoint."

Students making delayed payments from financial aid, loans, grants, scholarships, or Vocational Rehabilitation awards must also sign the credit agreement application and are responsible for finance charges assessed on the unpaid balance.
Students shall pay finance charges, which will appear on the billing statement, for each billing period in which the entire balance is not paid in full by the billing due date. The finance charge is calculated on the previous balance (exclusive of previous finance charges) reduced by payments and applied credits as they are made during the billing period. The finance charge will be calculated at the periodic rate of $.041095 \%$ per day, or $11 / 4 \%$ per month (annual percentage rate of $15 \%$ ) on that portion of the balance which is $\$ 500$ or less, and at the periodic rate of $.032877 \%$ per day or $1 \%$ per month (annual percentage rate of $12 \%$ ) on that portion of the balance which is in excess of $\$ 500$.
Under the partial payment plan, charges will be billed as follows:
First bill-One hundred percent ( $100 \%$ ) of any previous balance, plus finance charges and forty percent
( $40 \%$ ) of the current semester charges, will be payable on the first day of classes.
Second bill-Fifty percent (50\%) of the new balance plus finance charges will be due at approximately the seventh week of classes.

Third bill-One hundred percent (100\%) of the new balance will be due at approximately the eleventh week of classes.

Fourth bill-One hundred percent (100\%) of any remaining balance plus finance charges will be due at approximately the fifteenth week of classes.
The due dates and amounts are subject to change without previous notice.
Finance charges begin to accrue on the first day of classes. The student may pay the remaining balance or more than the required minimum payment to avoid or reduce future finance charges. Finance charges will continue to accrue on the balance until the balance is paid in full.

The use of this plan does not imply that a student can withdraw from school and thereby be excused from the remaining payments for the semester. This plan merely defers portions of the fees to be paid later in the term. If a student withdraws after the refund period ends in the fourth week, fees must be paid in full. (See a later portion of this catalog for withdrawal procedures.)
Failure to make payments as agreed may result in a denial of partial payment plans for future semesters.

Instructions on the payment of fees are included with registration materials.
For students NOT on the partial payment plan, payment of the total amount of the fees is required before the first day of classes. An "Assessment for Administrative Services" fee for the late payment of fees is assessed if the fees are not paid before the second week of classes, as follows: Payment during the second week, \$20 penalty; during the third and fourth week, $\$ 30$ penalty; after the fourth week, cancellation of registration.
Students who are more than 30 days delinquent in the payment of an account may be withdrawn from the University. Students who are delinquent in their financial obligations will not be allowed to receive grade reports, transcripts, or diplomas, nor may they enroll under the partial payment plan for any future term until these obligations are removed.

## Instructions for Handling a Billing Error

If you believe your bill to be in error, send writțen notice to the University within 60 days of receipt of the billing statement. Be certain to include this information: (1) your name, (2) your student ID number, (3)
the dollar amount of the error, (4) a brief explanation of why you believe your bill to be in error.
If you believe that only a portion of your bill is in error, please pay that portion of the bill that is correct by the stated due date.

## Refund Schedule

All academic fee payments are refundable provided the Registrar is notified in writing prior to the first day of classes that the registration is being cancelled. If such notification is not received from the student before the first day of classes, a withdrawal fee of $\$ 30$ may be charged to the student's account when the withdrawal is processed.

Refunds for a complete official withdrawal from the University will be made as follows.

| Session | Withdrawal during week \# |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| length (wks) | 1 | 2 | 3 | 4 | $4+$ |
| 12 or more | $100 \%$ | $80 \%$ | $60 \%$ | $40 \%$ | 0 |
| $10 \& 11$ | $100 \%$ | $80 \%$ | $60 \%$ | 0 | 0 |
| 6 thru 9 | $100 \%$ | $70 \%$ | $30 \%$ | 0 | 0 |
| 5 | $100 \%$ | $60 \%$ | $20 \%$ | 0 | 0 |
| 4 | $100 \%$ | $40 \%$ | 0 | 0 |  |
| 3 | $100 \%$ | $30 \%$ | 0 |  |  |
| 2 | $100 \%$ | 0 |  |  |  |

The same refund schedule shall be applied when courses are dropped or added. Additional fees will be assessed, or refunds granted, on the net result of those adds and drops. No student should pay more than full-time fees, any refunds considered.
A refund of the room reservation deposit of the academic year contract will be granted if requested prior to July 1. A refund of the room reservation deposit on the second semester contract will be granted if requested prior to December 1. There is a one semester option available to juniors and seniors only. Refund of the deposit is granted at the end of the semester.
Refunds of fees for room and board are made on a pro-rata basis. In all cases the refund is calculated from the Monday following the date of termination of the contract.

To withdraw from the University, a student must report to the Student Assistance Center to initiate the withdrawal procedure. To question or appeal a withdrawal date, the student must contact the Student Assistance Center. The Center is located in Room 103, Student Services Building. Phone: (715) 346-3361.
To terminate a residence hall assignment but remain in school, a student must report to the Office of Residence Life on the first floor of Delzell Hall. A release from the residence hall agreement is granted for the following reasons: marriage, student teaching, or participation in curricular programs which require off-campus living.

## Housing and Dining Services

Facilities are available in the residence halls and dining services at the following rates: (The rates shown are for the 1983-84 academic year and are subject to change.)
Room: $\$ 485$ per semester per student for double occupancy, $\$ 970$ for the academic year. This includes bed linens. Students provide their own pillows, blankets, and towels.
Board: There are three plans available: (1) $\$ 536$ per semester ( $\$ 1,072$ for the academic year), providing 20 meals per week, three meals a day Monday through Saturday, with a brunch and dinner on Sunday. (2) $\$ 522$ per semester ( $\mathbf{\$ 1 , 0 4 4}$ for the academic year) providing 14 meals per week. (3) A "point plan" which enables students to choose their meal times and dining areas. Points are loaded into the campus ID card at the beginning of the semester via a magnetic strip. Points are accepted in all dining facilities in the DeBot, Allen, and University Centers. As purchases are made, the amount purchased is deducted mechanically from the card balance. Points are distributed at a cost of $\$ 400$ per semester.
All students who live in the residence halls must be on one of the three board plans described above. All students (whether living on campus or off) may purchase any of the three board programs. In addition, students and faculty may purchase discretionary points in increments of $\$ 25$. For faculty and staff, these additional points can be put on payroll deduction and for students they can be added to their school bill.

These rates provide room and dining service only during periods in which the University is in session. They do not provide for vacation or other closed peri-
ods. The rates indicated above are tentative as of this printing and are subject to change.
Information and housing application forms are mailed to all students admitted to the University. The housing application should be returned as early as possible, with a $\$ 75.00$ room reservation deposit. The applications are processed in the order in which they are received.

## Miscellaneous Fees

Certain courses require additional fees to cover the cost of materials and services beyond those usually provided, such as gold or silver or extra canvas in art courses, field trips, or rental of bowling alleys, golf courses, and ski tows in some physical education courses.

The University actively pursues a policy of collecting checks returned by the banks for non-negotiability (non-sufficient funds, endorsement missing, etc.). There is a $\$ 5.00$ service charge each time a check is returned by the bank. If the check is not accepted by the bank after being deposited twice, the following will apply: (1) Non-fee checks (those written for cash, merchandise, etc.) will be submitted to the District Attorney of Portage County for collection. (2) Checks written for fees (academic, segregated, etc.) will be charged back to the student's account, resulting in non-payment of fees.
A fee of $\$ 5.00$ will be assessed if it becomes necessary to replace a lost identification card. This fee is non-refundable.
A finance charge on the unpaid balance will be charged to students who participate in the partial payment plan. (See the section on Payment of Academic Fees on pages 36 and 37.)


## Academic Work

The Office of Registration and Records is primarily responsible for the enforcement of the material presented under this heading. The policies, procedures, and regulations which are described have been established by official action of the faculty and administration of the University.
David J. Eckholm, Registrar and Director of Registration and Records
Larry J. Sipiorski, Associate Registrar
Room 101, Student Services Building
Phone: (715) 346-4301

## Academic Regulations

Primary responsibility for learning and following the regulations of the University and for completing all graduation requirements at the proper time rests with the student. While faculty advisers will assist students in planning their programs, they are not expected to relieve students of their responsibility.
An undergraduate student has the option to fulfill the required curriculum for the bachelor's degree and the academic major/minor requirements which have been approved by the faculty either immediately prior to the semester for which the student first enrolls, or those adopted subsequently. (Ordinarily these regulations and requirements are found in the University catalog, but printing schedules frequently cause a time lag between the most current requirements and the catalog statement.) Exceptions are as follows:

1. If requirements have been altered by an external agency, e.g. teacher certification by the Department of Public Instruction, the student must meet the revised requirements.
2. A student re-entering after an interruption of two or more consecutive semesters will be required to fulfill the requirements that are current at the time of re-entry. A student who enrolls and then withdraws within the first two weeks of the semester will be considered as not enrolled for that semester.
a. Normally if a student has completed more than two-thirds of the required curriculum for the bachelor's degree (i.e. two-thirds of the credits), exclusive of major/minor and electives, at the time of re-entry, the Dean of the appropriate college will approve a request to permit the student to complete the general degree requirements current at the time of initial registration.
b. Normally if a student has completed more than half of the major/minor requirements (i.e. half of the credits) at the time of re-entry,

the chair of the appropriate department will approve a request to permit the student to complete the major/minor requirements current at the time of initial registration.
3. Under extenuating circumstances other exceptions to meeting the degree requirements can be made by the dean of the student's college. Under extenuating circumstances other exceptions to meeting the academic major/minor requirements can be made by the chair of the student's major/ minor department(s).
Whichever set of degree and/or major/minor requirements the student elects, or is permitted to meet, must be met in total.

## Academic Honors

(This revised statement of the honors program becomes effective with the first semester of the 1981-82 academic year.)
The faculty has established a program of academic honors to recognize students for outstanding academic achievement.
Highest Honors are awarded to those students who have earned a grade point ratio of 3.90 or above;
High Honors to those who have earned a grade point ratio of 3.75 to 3.89 ; and Honors to those who have earned a grade point ratio of 3.50 to 3.74 .
Semester Honors are awarded each semester for that semester's work, and are announced after the end of the semester. A student must complete at least 12 semester hours of work with passing grades in order to be eligible for this recognition, except for students taking student teaching only, in which case the minimum is 10 semester hours.
Graduation Honors are awarded on the basis of the grade point ratio for all courses attempted, including college level work attempted elsewhere. Recognition in the commencement program is based on work which has been completed prior to the final semester or term. Notation of honors on the student's perma-
nent record (from which transcripts are made) includes the final semester or term.

## The University Honors Program

The University Honors Program is open to all interested and qualified students. It allows the superior student an opportunity for intellectual and academic achievement which normally is not available in traditional classes.

In order to graduate as a University honors graduate, a student is required to complete a minimum of 15 credits of academic work in specially designed interdisciplinary courses. These honors courses will fulfill part of the general requirements for a degree. See "Honors Program" under COURSES OF INSTRUCTION later in this catalog.

Students meeting any of the following criteria will be eligible for the honors program.

> Entering Freshmen: (1) High school class rank of 90th percentile or above; (2) ACT or other standardized test scores with a composite score in the 90th percentile or above; or (3) Professional recommendation from a high school teacher or counselor.

> Continuing Students: (1) An overall grade point ratio of 3.50 or above; (2) Recommendation of a faculty member; or (3) Appeal to the University Honors Committee for admission to the program.

To remain in the honors program a student must maintain a minimum grade point ratio of 3.50 . A student may withdraw from the program at any time without losing credit for the honors work successfully completed.

Benefits that students may expect from participation in the honors program include (1) The stimulation of close intellectual association with other talented students and with faculty, in a variety of academic settings in addition to the traditional classroom; (2) the personal satisfaction of meeting the challenge of honors work and of outstanding achievement; (3) the notation on the student's university record and diploma and transcript as a University Honors graduate, adding to the graduate's credentials and appealing to prospective employers or graduate schools.
Some academic departments also maintain departmental honors programs consisting of a minimum of nine credits of work in the discipline.

For further information about the Honors Program contact the Office of Academic Affairs. For further information about departmental honors contact individual academic departments.

## Academic Advising

On entering the University, each student is assigned to an adviser who is available to help arrange an
academic program along lines suggested by the student. It is suggested that students consult an adviser each semester to review the progress of their academic work and to discuss a course of study for the following semester.
In addition, the University has established an Academic Advising Center, with the primary mission of assisting those students who have not declared a major. Each student will be assigned a faculty adviser in the Center (Room 106, Student Services Building). Students who need assistance with academic matters or who seek general information are also invited to meet with the faculty advisers. The Center also has available resources with information about other institutions of higher education, vocational centers, general degree requirements, careers, and the majors, minors, and professional programs on this campus.

The services of the Counseling Center (Room 304, Delzell Hall) are also available to all students to discuss academic difficulties or any other phase of the student's life at the University.

## Majors and Minors

The following table indicates what majors and minors are available in the several colleges of the University. See also the listing of major and minor areas for teacher certification later in the catalog under the College of Professional Studies. Graduate programs are described in the later section on the Graduate School.


|  | Major | Minor |
| :---: | :---: | :---: |
| Food Service Management ............................ |  | X |
| Forestry.. | $x$ | X |
| French | X | X |
| General Science-See Natural Science |  |  |
| Geography .................................................. | $x$ | $x$ |
| Geology..................................................... |  | X |
| German | x | X |
| Health Education. |  | X |
| History ....................................................... | X | $x$ |
| Home Economics ......................................... |  | X |
| Home Economics Education. | $x$ |  |
| Housing and Interiors... | X |  |
| Individually Planned Major | X |  |
| Instructional Resources (Formerly Learning <br> Resources) $\qquad$ |  | x |
| Latin American Studies . | $x$ | X |
| Learning Disabilities.. |  | X |
| Library Science............................................ |  | X |
| Managerial Accounting ................................. | $x$ |  |
| Mathematics. | X | x |
| Medical Technology | X |  |
| Microelectronics \& Microcomputer Systems..... |  | X |
| Military Science .. |  | X |
| Museum Techniques .................................... |  | X |
| Music......................................................... | $x$ | X |
| Music-Applied. | $x$ |  |
| Music Education-Instrumental | X |  |
| Music Education-Vocal. | X |  |
| Music Literature.. | X |  |
| Natural Resources-See Resource Management |  |  |
| Natural Science | x | x |
| Office Administration-See Business Education |  |  |
| Outdoor Education ........................................ |  | x |
| Paper Science............................................. | X |  |
| Peace Studies., |  | x |
| Philosophy .................................................. | $x$ | X |
| Physical Education ....................................... | X |  |
| Physical Education for Exceptional Children .... |  | X |
| Physics ...................................................... | $x$ | $x$ |
| Political Science ........................................... | X | $x$ |
| Psychology................................................. | $x$ | $x$ |
| Public Administration and Policy Analysis........ | X | X |
| Recreation.. |  | X |
| Religious Studies ......................................... |  | $x$ |
| Resource Management ................................. | X | X |
| Russian. |  | $x$ |
| Russian and East Central European Studies .... | x | $x$ |
| Safety Education .......................................... |  | X |
| Small City Analysis....................................... |  | X |
| Social Science ............................................. | $x$ | X |
| Sociology ................................................... | X | $x$ |
| Sociology and Anthropology .......................... |  | $x$ |
| Soil Science ................................................ | $x$ | $\dot{x}$ |
| Spanish ...................................................... | X | X |
| Special Learning Disabilities-See Learning Disabilities |  |  |
| Theatre Arts: Dance ...................................... | X | $x$ |
| Theatre Arts: Drama..................................... | x | $x$ |
| Water Resources ......................................... | X | X |
| Wildlife ....................................................... | X | X |
| Women's Studies ......................................... |  | X |
| Writing....................................................... |  | X |

There is a curriculum in military science as part of a voluntary Army ROTC program. There are also curricular offerings in astronomy, Chinese, colloquium, Greek, lecture forum, and Polish.

## Department Acceptance of Candidates for Majors and Minors

In curricula in which a major field of study is required, a student must declare himself a candidate for a major in a department by no later than the time he has earned 56 credits (exclusive of required physical education) toward graduation. A declaration of intent to major in a given department is accomplished at registration by filling in the appropriate blank on the registration card with the name of the major.

Students at the junior level should, if they intend to declare a minor, indicate this intent by filling in the blank for minor designation on the registration card.
Students are responsible for determining that they have met all the requirements, including collateral courses, for their major(s) and minor(s). In general, they must have a cumulative grade point ratio of at least 2.00 in all the courses required in each of their major(s) and minor(s). However, several departments require a higher grade point ratio. Major and minor requirements are listed at the head of each department's listing of courses in the catalog. At least a semester before they intend to graduate, students should check which, if any, requirements remain to be satisfied with each department in which they seek a major or minor.

A student may be discontinued as a major candidate only if he is notified in writing that the decision has been made. A copy of such notification is to be sent to the Records Office. The written notice must be given prior to the completion of two-thirds of the credits required for the major or prior to the beginning of the student's senior year, whichever occurs first; except that a student in good standing as a major candidate during his junior year, who does not continue to meet the standards of the department during his senior year, may be discontinued as a major.

A department may wish to accept or retain a student as a major candidate during his senior year on a conditional basis. The department must notify any such student in writing, at the time of acceptance prior to the senior year, of specific conditions that must be met. If a student, during his senior year, fails to satisfy the written conditions, the department has the right to discontinue his candidacy and shall give written notice of such decision.

A student must have a cumulative grade point ratio of 2.00 in his major(s), including prescribed collateral


#### Abstract

courses, in order to be eligible for departmental approval to graduate with the major(s).


A student who believes a departmental action on his major candidacy is unreasonable or unfair has the right to discuss the decision with the dean of the college concerned.

## The Semester Hour; The Credit

The unit used in computing the student's study load is the semester hour, which represents one hour of class work, or its equivalent in other forms of instruction, per week for one semester. Two, or sometimes three, hours of laboratory work are usually considered the equivalent of one hour of class work.

A semester hour's work completed with a grade of $D$ or better becomes a credit.

## Study Load

In order to graduate, a student must earn 120 credits in addition to credits in required physical education.

A normal study load is 15 semester hours plus one semester hour of physical education when required. Exceptions up to 18 semester hours may be granted as provided for in each college. The Student Assistance Center may permit 18 semester hours, plus one semester hour of required physical education, but permission to do so is granted only in highly unusual cases and only to students whose academic records warrant the exceptions.

Students registering more than one week late in any semester will find it difficult to carry the normal load for that semester, and may be required to take a reduced load.

Veterans under Public Law 550 are expected by the Veterans Administration to carry 12 semester hours (nine for graduate students) to qualify for full benefits. (See details under Veterans Benefits.) Students claiming Social Security benefits are required to carry at least 12 semester hours.

## Grading System

Semester (and summer session) grades are recorded by letter only, and each letter grade carries a specific number of points per semester hour. The scale of grades and points follows:

|  |  |
| :---: | :---: |
|  | 4.00 |
| A | . 3.67 |
| B+ | 3.33 |
| B | 3.00 |
| B- | 2.67 |
| C+ | 2.33 |
| c | 2.00 |
| C | 1.67 |
| D+ | 1.33 |
| D | 1.00 |
|  | 0.00 |
| These |  |
| S is non-c | of a |
| W (W dropp Cours of cla grade point cially week ordina excep Unive | cially asses. week <br> rd. A rade who offiinth ourse For the |
| WF (W when failing after th given from ing the sectio | ed <br> doing rsity ill be Iculatthe |

$\mathbf{P}$ (Pass) and $\mathbf{F}$ (Fail). See the following section.
$\mathbf{P}$ designates that the student passed the course and that credit is granted for the course.
F designates that the student failed the course and that credit is not granted.
Inc (Incomplete) indicates that the student's work in a course is incomplete, and that the student has obtained the instructor's permission to complete the course. A grade of Inc is not included in calculating the grade point ratio. (See statement on "Incompletes.")
A student who voluntarily stops attending a class at any time without completing the prescribed change of program procedure will be considered as still registered and will receive an F in the course at the end of the semester.
The Grade Point Ratio (GPR) is computed by dividing the number of points earned by the number of semester hours elected (at this University). The designations S, W, WF, P and Inc are not included in the computation of the grade point ratio. The maximum
ratio is 4.00 ; the minimum is 0.00 . The grade point ratio is used in determining eligibility for honors, for admission to certain majors, colleges, and curricula, and for membership in a number of campus organizations, when scholastic achievement is one of the criteria.

The Point-Credit Ratio is based on the number of credits earned in courses passed (at this University) and on the number of points earned in these courses. The maximum ratio is 4.00 ; and minimum is 1.00 . A student must have a point-credit ratio of 2.00 in order to be eligible for graduation.

## The Pass-Fail Grading Program

The Pass-Fail grading program provides greater opportunities for the college student to secure a more liberal and broader academic experience than is usually possible under the traditional, many-stepped grading program. It permits a student to take courses from a personally and intellectually oriented motive, rather than from the pressure to secure and maintain a high grade point ratio. It tends to encourage the student to take a course outside the field of his major concentration in which his prerequisite knowledge would not be adequate to sustain a high letter grade. Such a program would permit the student to experience learning for its own sake.
$\mathbf{P}$ designates that the student passed the course, and that credit is granted for the course. A grade of $P$ will not be included in calculating the grade point ratio (except for certification of VA benefits), but the credit earned will apply toward a degree.
$F$ designates that the student failed the course and that credit is not granted. A grade of $F$ will be included in calculating the grade point ratio.
The Pass-Fail program will apply only to undergraduate courses.
The student will be limited to selecting no more than five credits per semester (other than required Physical Education) under the Pass-Fail program.
No more than 20 credits of Pass-Fail courses (other than required Physical Education) will be counted toward degree requirements.
The Pass-Fail program will not be open to students on academic probation (except for courses in required Physical Education and in courses offered on a Pass-Fail only basis).
No more than two courses in the major and no more than one course in the minor may be taken on a Pass-Fail basis. At the discretion of academic departments, other Pass-Fail restrictions may be established for majors and/or minors.
Credits earned under the Pass-Fail option may not be used to satisfy (1) the requirements of communica-
tion, English, foreign language, history, humanities, mathematics, natural science, and social science studies listed under the curriculums for the Bachelor of Music and Bachelor of Science Degrees, and under the General Requirements for the Associate Degree; and (2) the requirements listed under paragraphs I. to X. of the curriculum for the Bachelor of Arts Degree. Special registration is required. Students electing the Pass-Fail option should register for it at the Registration Office not later than the beginning of the third week of classes. A change either to or from the Pass-Fail option will not be permitted after the eleventh day of classes.
A student may elect to register under the Pass-Fail program in those courses and/or sections which the various academic departments have indicated are available under this option. Such courses and/or sections are designated in the timetable. Each department has the right to determine which of its courses it will include or exclude from the program and under what conditions.
Departments shall guarantee the option of a standard grade in all courses offered under the Pass-Fail program, except that departments may establish courses or sections of courses on a Pass-Fail only basis with the prior approval of the Curriculum Committee.

## Incomplete

A report of incomplete indicates that the student's work in a course is incomplete and that the student has obtained the instructor's permission to complete the course. An Incomplete is normally given only where extenuating circumstances exist, or where research or performance needs to be extended beyond the normal limits of a semester (or other term). The instructor will indicate to the chair of his department the work to be completed in order for the student to receive credit.


An Incomplete must be removed during the student's next semester in attendance or it automatically becomes a failure. An extension of this time limit may be granted by the Student Assistance Center after consultation with the instructor if the reasons are determined to be beyond the control of the student.
(Veterans benefits which have been paid for a course in which an Incomplete was assigned will have to be refunded to the Veterans Administration if the Incomplete is not replaced by a grade within 12 months.)
A student does not remove an Incomplete by registering in a subsequent semester to re-take the course.

In order to remove an Incomplete, the student must make arrangements with the instructor for the satisfactory completion of the work remaining to be done in the course. When the work is completed, the instructor will report the removal of the Incomplete to the Records Office. It is the responsibility of the student to make these arrangements. The student should also report the completion of the course to the Records Office so that appropriate follow-up measures may be taken.

## Audit

To "audit" a course is to attend class regularly, without the obligation of participating in class discussions, laboratory work, examinations, performances or any class activity other than listening.
A. A course may be audited under the following conditions:
Audited courses do not carry academic credit.
The University's attendance policy applies to audited courses.
A course may be audited only if the instructor permits, and if there is space in the class.
The student is limited to a combined credit-audit load of five credits beyond the normal maximum study load. (See paragraph headed "Study Load.")
The student must be regularly registered for the course and pay the regular fees, counting the audited course as part of the total study load. (In certain circumstances, special reduced fees are available. See B., below.)
Additional special registration is required for a course being audited. Report to the Registration Office after classes begin, but not later than the 11th day of classes, to fill out the proper form. Approval of both the instructor and the department chair is required.
An "audit" may not be changed to "credit," nor a "credit" to "audit" after the 11 th day of classes.

The student's record will show "audit" for the course if the instructor certifies by such a grade that the prescribed conditions have been met.
A student who has audited a course may take the course at a later date for credit.
A student who later seeks credit by examination for a course previously audited must be enrolled in the University at the time the examination is taken and is subject to such fee charges for the examination as the University may establish.
Regent, University, and Student Government regulations applying to students apply equally to those who are auditing courses.
No exceptions to these regulations are permitted except in unusual circumstances and with the permission of the Student Assistance Center.
B. Students who are registered for "audited" courses are assessed fees according to the following conditions:
Persons 62 years of age or older are exempt from the payment of course fees, and textbook rental and parking fees are waived. Registration for courses audited under this policy is arranged at the Office of Cortinuing Education and Outreach.
Persons under 62 who are enrolled part-time are assessed one-half the resident course fee for the courses audited (non-residents shall pay, in addition, the appropriate non-resident tuition).
Part-time students taking courses for both credit and for audit will not be assessed segregated fees for the courses taken for audit.
The usual fees will be assessed for courses taken for credit.
Persons enrolled ONLY for "audited" courses will not be assessed segregated fees, nor will they be eligible for the use of services supported by those fees (e.g., Activity, Health, University Center).
Any special costs for course instruction, other than the normal fee, will be assessed, such as for materials for certain art courses.
Refunds will be permitted according to the refund schedule shown in the section on Student Expenses.

## Grade Review

Inorder to reconcile grievances students may have about the grades they receive, the Grade Review Subcommittee (of the Academic Affairs Committee) has been established. A student may initiate action under this procedure in the Student Assistance Center, Room 103 of the Student Services Building
(Phone: (715) 346-3361). Provisions and procedures are indicated in the following paragraphs.
The grounds for appeal shall ordinarily be as follows: The alleged failure of the instructor to provide to the students, not later than the end of the second week of classes, a written statement of how grades will be determined; or the alleged failure of the instructor to assign grades according to the manner described.
Procedures: Any student who, after consultation with the instructor concerned, wishes to initiate an appeal of the grade must present that grievance in writing to the Coordinator for Grade Review in the Student Assistance Center no later than the end of the fourth week of classes of the subsequent regular academic year semester.
The Coordinator shall, upon receipt of a written request for grade review, take the following steps: (a) meet with the student and discuss the grounds for appeal, the appeal process, and the options available to the Grade Review Subcommittee if the appeal is sustained; (b) provide a copy of the student's allegation of grievances to the instructor concerned, and solicit a written statement of explanation from the instructor; (c) the instructor shall have 20 working days to respond; (d) after receiving the response, or at the end of the 20 working days, if no response is received, the Coordinator shall evaluate the allegations and make a determination as to the validity of the appeal; (e) if the Coordinator, on the basis of preliminary evaluation and investigation, concludes that any kind of grade change may possibly be warranted, or if the instructor has failed to respond in writing, the Coordinator shall forward all relevant data to the Subcommittee, with a directive that the allegations be investigated and a determination as to their validity made.
Under ordinary circumstances (i.e., with all parties on campus), the Subcommittee shall adhere to a deadline of the end of the semester in which the appeal was initiated to complete its deliberations and decide on the appeal.
If the Subcommittee determines that a valid evaluation of grievance requires special academic expertise, or at the request of the instructor concerned, the Subcommittee shall solicit an independent evaluation in writing from a body of three impartial experts appointed by the chair of the instructor's department, in consultation with the instructor and the Subcommittee chair. The Subcommittee shall accept the evaluation and recommendations of the impartial body of experts on matters of academic content when such evaluation and recommendation are solicited.
After its investigation, the Subcommittee shall inform both the student and the instructor of its decision in writing. In the event that the Subcommittee finds that a change of grade is warranted, it shall in addition
recommend to the instructor the appropriate grade change. If the instructor refuses to make the recommended grade change within 10 school days of the Subcommittee notification, the Subcommittee shall take one or more of the following steps to protect the student's interest: (a) attach to the student's permanent record and transcript a statement of the recommended change of grade and the reasons for not changing the grade; (b) exempt the challenged grade from any calculation in the student's grade point ratio, unless the student wishes the grade to be included; (c) authorize the student's graduation minus the credit hours represented by the challenged grade in the event that the original grade was an $F$.

## Transferred Credits

Credits transferred from other institutions are not used in calculating grade point ratios. The cumulative grade point ratio is determined only by the credits and grade points earned on this campus.
Credits transferred from accredited institutions for courses in which grades of $D$ or better were earned may count toward graduation, and may be used to meet requirements for prerequisites and for specific courses, but not necessarily for a major.
Course-numbering systems vary among institutions. A course numbered 300 or above at another institution will not necessarily be considered the same as a course numbered 300 or above here. Questions regarding the transferability of credits should be directed to the Admissions Office.

A student who earns the last credits toward a degree at some other university or college must file a transcript of such credits in the Records Office not later than 30 days after the date of the UW-SP graduation. Failure to meet this deadline will result in the delay of the student's graduation until a subsequent graduation date.

## Correspondence Courses

Correspondence credits from an accredited university may be applied toward an undergraduate degree. These are considered non-residence credits and are subject to the limitations on transfer credits.

A student's load must take into account any extension or correspondence credits which he expects to be taking. Such courses should be approved in advance by his adviser.

This University does not offer any correspondence courses.

## Repetition of Courses

Courses in which a student receives a grade of $D$ may not be repeated unless prior authorization to do so is granted by the Student Assistance Center*.
mester hours attempted and the grade points earned at UW-SP following readmission.
In order to graduate a student must, after electing this option, earn thereafter: (a) a minimum of 30 credits and an overall point credit ratio of 2.00 in such credits; OR (b) sufficient grade points to bring the overall point credit ratio to 2,00 .
This option may be exercised only once in a student's career. Students considering this option should be aware that employers, graduate schools, and/or accrediting agencies may evaluate the total record of the candidate. Students who have been readmitted under the Bankruptcy Option are subject to the same suspension rules as transfer students who are admitted on probation. Students receiving veterans benefits should consult the Registration Office before electing this option. Students may be required to repay the VA for past benefits received.

## Change of Program

## A. Drop and Add Procedure

A student is expected to complete the courses in which he is enrolled. However, he may drop a course during the first two weeks of classes in any semester, if he has permission from his adviser. Similarly, he may add a course during the first week of the semester provided the prescribed degree requirements are being met. No student may register for a course after the sixth day of classes. In order to be valid, all changes must follow the procedure established by the Registration Office. The change of program procedure begins in the Registration Office, where instructions and forms are available.
(Note to advisers: If a change of program during the first two weeks involves only a change of sections in the same course, the change will be handled by the chair of the department offering the course. It need not be approved by the adviser or the Student Assistance Center. All other changes during the first two weeks of classes will be handled by the adviser and the chairs of the departments concerned.)
Dropping a course after the second week and through the ninth week of classes will be permitted if approved by the student's instructor. After the ninth week of classes in a semester, decisions on drops will be made by the Student Assistance Center, which will grant permission after the ninth week only if the reasons for dropping are illness, personal duress, or are clearly beyond the control of the student.

A student who officially drops a course after the second week of classes in a semester will receive a W in the course. Repeated occurrence of $W$ will be get cause for review of the student's record by the committee of Academic Deans, and possible dismissal of the student from the University.

A student who voluntarily stops attending a course at any time without completing the prescribed change of program procedure will be considered as still registered and will receive an $F$ in the course at the end of the semester.

## B. Withdrawal from the University

A student who finds it necessary to leave the University at any time during the semester should contact the Student Assistance Center, Room 103, Student Services Building, to initiate procedures for withdrawal either in person or in writing.
If a student withdraws from the University during the first two weeks of classes, no grades are earned or recorded; during the third through the fifteenth week a $W$ is recorded for each course, except that during the final six weeks of the semester an Inc or WF may be assigned at the discretion of the instructor.

After the fifteenth week or after the end of the semester, the Student Assistance Center, upon consultation with the instructor, may assign a $W$ if the reasons for withdrawal are determined to be for illness, personal duress, or for reasons clearly beyond the control of at the student. (In special circumstances, the student may be eligible for an adjustment of academic fees.)
Students who voluntarily leave the University at any time without completing the prescribed withdrawal procedures will be considered as still registered and will receive an Fin each course in which they are enrolled. In order to be valid, any withdrawal procedures initiated during the semester must be completed by the last day of the semester in which the student leaves the University.

Students who have withdrawn from the University after the second week of classes may return for the following semester without formal readmission, and they may register for the following semester during the period established for the registration of other continuing students.

## Student Records

## Release of Student Information

The Family Education Rights and Privacy Act of November 20, 1974 (Buckley Amendment) entitles students to review "official records, files, and data directly related" to the student which the University maintains. The student may also request a hearing regarding any alleged inaccurate, misleading, or inappropriate" information. In most circumstances, the University will not release information from student records to third parties without the student's consent or notice to the student. An interpretation of the law is printed below and, copies of it are available at the reservation desk of the library and at the Student Assistance Center, Room 103, Student Services Building.

The Family Educational Rights and Privacy Act of 1974, as amended, requires that you be advised of your rights concerning your education records and of certain categories of public information which the University has designated "directory information." This notice, in question and answer format, satisfies this requirement of the Act.

1. As a student on the Stevens Point campus, what rights do I have regarding my University records?
You have the right to inspect and review all your records which meet the Act's definition of "education records."
2. What is the definition of "education records?"

Education records are all the records maintained by the University about you. There are six exceptions:
a. Personal notes of University of Wisconsin staff and faculty.
b. Employment records.
c. Medical and counseling records used solely for treatment.
d. Financial records of your parents.
e. Confidential letters and statements or recommendations placed in your records prior to January 1, 1975.
f. Confidential letters and statements or recommendations for admission, employment, or honorary recognition placed in your records after January 1, 1975, for which you have waived the right to inspect and review.
3. Is there any situation in which the University may insist that I waive my rights?
Under no condition may you be required to waive your rights under this Act before receiving University service or benefits.
4. Where are my records kept?

Records are not maintained in a central location on the campus. Requests to review your records must be made separately to each office which maintains your records. Your request must be made in writing and presented to the appropriate office. That office will have up to 45 days to honor your request. For most students, these offices will include those of the Registrar, your school or college dean, your major department, Protective Services, and any other campus office with which you have been in contact, such as Student Financial Aids or Housing.
5. What if $I$ do not agree with what is in my records? You may challenge any information contained in your "education records" which you believe to
be inaccurate, misleading, or inappropriate. This right does not extend to reviewing grades unless the grade assigned by your professor was inaccurately recorded in your records. You may also insert a statement in your record to explain any such material from your point of view. If you wish to challenge information in your file, you must make a written request for a hearing to the dean or director of the appropriate office. In most cases, the decision of the dean or director will be final. However, you may elect to file an appeal in writing to the Assistant Chancellor for University Services who will review the decision only if a significant question of policy or compliance with the law appears to be raised by the case.
6. May I determine which third parties can view my education records?
Under the Act, your prior written consent must be obtained before information may be disclosed to third parties unless they are exempted from this provision. These exceptions include:
a. Requests from the University of WisconsinStevens Point faculty and staff with a legitimate educational "need to know."
b. Requests in accordance with a lawful'subpoena or court order.
c. Requests from representatives of agencies or organizations from which you have received financial aid.
d. Requests from officials of other educational institutions in which you intend to enroll.
e. Requests from other persons specifically exempted from the prior consent requirement of the Act (certain federal and state officials, organizations conducting studies on behalf of the University, accrediting organizations).
f. Parents who claim students as dependents under the Internal Revenue code of 1954, Section 152, and who provide proof of such status.
g. Requests for "directory information" (please refer to the next question for an explanation).
7. What is meant by the term "directory information?''

The University, in accordance with the Act, has designated the following categories of information about you as public unless you choose to exercise your right to have any or all of this information withheld. This information will be routinely released to any inquirer unless you request that all or part of this be withheld. These categories are:
a. Name.
b. Home address.
c. Home telephone number.
d. Local address (students should keep current address on file in the Registration Office).
e. Local telephone number.
f. Date and place of birth.
g. Major/minor field of study, and college.
h. Participation in officially recognized University activities and sports.
i. Weight and height of members of athletic teams.
j. Dates of attendance (including initial registration, current classification and year, registration and withdrawal dates, graduation dates).
k. Degrees and awards received (type of degree and date granted).
I. The most recent previous educational agency or institution attended.
m. Class schedule.
n. Name of parents or guardian.
o. High school graduation and year of graduation.
8. What kinds of inquiries does the University receive for "directory information?"
The University receives many inquiries for "directory information" from a variety of sources including friends, parents, relatives, prospective employers, graduate schools, honor societies, licensing agencies, government agencies, and news media. Please consider very carefully the consequences of any decision by you to remove these items from the list of "directory information." Should you decide to inform the University not to release any or all of this "directory information," any future request for such information from non-university persons or organizations will be refused. For example, the University could not release your telephone number and address to a family member wishing to notify you of a serious illness or crisis in the family. A prospective employer requesting confirmation of your major field of study, address, or date of birth would also be denied access to such items, should you withdraw them from the list of "directory information." The University will honor your request to withhold any of the items listed above but cannot assume responsibility to contact you for subsequent permission to release them. Regardless of the effect upon you, the University assumes no liability for honoring your instructions that such information be withheld.

If you wish to file a form withdrawing some or all of the information in the "directory" classification, you should report to the Registrar's Office, Room 101 in the Student Services Building, and complete the necessary form. After you have filed this form, the Registrar will notify the appropriate University offices and begin to comply with your wishes as soon as possible.
9. Where can I find out more information about the provisions of the Act?
If you have any questions regarding the provisions of the Act, you may contact either the Student Life Office in Delzell Hall, telephone 3462611, or the Registrar's Office, 101 Student Services Building, telephone 346-4301.
10. Whom should I contact if I wish to make a complaint?
If you believe that the University is not complying with the Act, please direct your comment to the Assistant Chancellor for Student Life, telephone 346-4194.

## Reports

At the end of each term, a report of the student's grades (and if applicable, a notice of probation or suspension) is (are) mailed to the student at his home address.

## Transcripts

A transcript is an official, certified copy of a student's academic record. It shows: all courses which a student has attempted; credit values of those courses; grades assigned; degrees earned; and any academic probation or suspension actions.
A student may order transcripts of his record by addressing a request to the Records Office. Transcripts are furnished for $\$ 2.00$ each, except that when more than one is ordered at a time the charge is $\$ 2.00$ for the first one and twenty-five cents for each additional copy. Requests must be made in writing. Students who are delinquent in their financial obligations to the University will not be allowed to receive a grade report, a transcript, or a diploma.
Requests for information concerning activities and scholastic records of students or former students of University of Wisconsin-Stevens Point will not be honored without an authorization for release of the information by the individual whose record is involved. (Exceptions are made only in accordance with the Family Educational Rights and Privacy Act of 1974.)

## Final Examinations

All instructors are expected to meet with their classes during the final examination period at the time and place scheduled, either to give a final ex-
amination, or to provide an alternative educational experience. If the instructor wishes to change the time and/or place for his final examination, the change must be approved by the dean of his college.
If illness or an emergency makes it impossible for the instructor to give his examination as scheduled, he shall explain the situation to his chair and dean and propose a means of making up the examination.
Instructors, at their discretion, may modify the schedule for students who have three examinations on one day, or for other good reasons.

## Smoking in Classes

Smoking by students, faculty, or staff is not allowed in University classrooms. It is the responsibility of the instructor to insure that smoking is not permitted in his classroom or laboratory session. Smoking is not allowed in academic buildings except in certain designated smoking areas and in faculty and administrative offices.

## Attendance

The University expects all students to attend classes regularly. Within this general guideline an instructor may establish more detailed policies on attendance for his classes.
The instructor is expected to give a clear explanation of his attendance policies to all of his classes at the beginning of each semester. The University does not have a system of permitted "cuts." Regular attendance is expected, and the implementing of this policy is the joint responsibility of the student and instructor.
Each student has the responsibility to confer with his instructors regarding all absences. If sudden departure from campus prevents his communicating with each of his instructors, a student who is absent for emergency or extraordinary reasons is expected to notify the Student Assistance Center, Room 103, Student Services Building.
Failure on the part of a student to make satisfactory arrangements with his instructors regarding excessive absences may be cause for the student's dismissal from a class or from the University. Dismissal may be authorized by the Student Assistance Center, Room 103, Student Services Building or by the dean of the college in which the student is enrolled. Such dismissal may carry a grade of $F$ in the course from which the student is dismissed, or in all courses if he is dismissed from the University.
A faculty member in charge of any off-campus trips by an authorized University group (such as class field trips, athletic teams, musical or dramatic organizations and debate) shall duplicate lists of participating students, distribute a copy to the Student Assistance Center, Room 103, Student Services Building. Each

participating student is responsible for making appropriate arrangements in advance with instructors of each class to be missed.
Instructors should furnish students a reasonable amount of help in making up work missed, where the reason for absence concerns emergencies, off-campus trips, illness, and the like.

## Late Registration

No student may register in the University, or for an additional course, after the end of the sixth day of classes in any semester. A late registration fee of $\$ 15.00$ may be charged.

## Residence Requirements

No more than 90 transfer credits may be accepted for a degree at the University of Wisconsin-Stevens Point.
To be eligible for a degree a student must have earned at least 30 of the total credits (exclusive of required physical education) required for the degree in residence or by extension at this University.

## Application for Graduation

Seniors should apply for graduation at the beginning of their senior year, as indicated in the statement of degree requirements for each of the colleges of the University. Application forms are available in the Registration and Records Office. Candidates for the Master's degree should follow the instructions for application as listed in the section on the Graduate School.

## Interim Session and Mini-Courses

A number of courses are being offered between semesters and during the period following the end of the school year and before summer school starts.

Each period is usually about three weeks, and a maximum of one credit per week can be completed in this time. The program is administered through the Office of Continuing Education and Outreach, and current information can be obtained from that office.

## Second Baccalaureate Degree

A student who has completed one baccalaureate degree may be granted a second baccalaureate degree if he completes:

1. 30 additional credits.
2. All requirements of the second degree.

Courses completed for the first degree may be used to satisfy requirements of the second degree. The major completed must be one that is acceptable for the second degree.

## Graduate Study

Programs which lead to the following degrees are available through the Graduate School. Details are listed later in this catalog.
Master of Arts in Communication; Master of Arts in Teaching: Master of Education-Professional Development; Master of Science; Master of Science in Special Education-Early Childhood: Exceptional Educational Needs; Master of Science in Teaching; Master of Music Education; Master of Science in Education.

The Universities of Wisconsin work cooperatively to provide opportunities within reasonable access to all students of the State.
A number of graduate assistantships are available to qualified students who participate in the academic year program on a full-time basis.

## Cooperative Education Program

Stephanie S. Bullis, Coordinator Room 134, Main Building<br>Phone: (715) 346-3136

The Cooperative Education Program allows a student the opportunity to combine classroom learning with practical on-the job experience. Open to all students, the program accomplishes its purpose by arranging for integrated vocational employment opportunities concurrent with the academic subject matter or on an alternating basis between periods of full-time study on campus and full-time paid employment in work related to the major field. Co-op work assignments are available on and off campus in numerous vocational settings and offer the following benefits:

1. The knowledge and training co-op interns acquire makes them highly attractive employees upon graduation.
2. Via related work experience, co-op interns increase self-confidence and improve personal qualities such as judgment and reliability.
3. Co-op interns gain greater understanding of people and increased skill in human relations.
4. Integration of the vocational and academic areas gives greater relevance to classroom work as principles and theories are applied in a work-aday world.
5. Although professional vocational training is the primary purpose of the program, co-op interns find that their earnings often pay part or all of their school expenses.
6. Research has demonstrated that co-op interns successfully completing the program receive more employment offers at starting salaries of up to $\$ 1,000$ per year more than their peers without such training.
Students desiring more information about the Co-op Education Program should contact the Career Services Office in the Main Building.

## International Programs

Helen Corneli, Director
Room 208, Main Building
Phone: (715) 346-3757
Current major overseas study programs-semesters in Britain, Germany, Poland, Taiwan, Spain, Malaysia and Australia-enable students to earn 13 to 17 credits while abroad. All are open to qualified students from other universities who, for the semester abroad, enroll at UW-SP. Instruction in all programs is in English: leaders are faculty members who live with the group. In Britain there are two accompanying faculty, in all other programs, one.

Each year, two groups of students go to London, England: one in August and one in January. They live at Peace Haven in Acton, a suburb of London. Added to the three months of residence in England, during which they take liberal arts courses, is a month of travel-study on the continent. In the spring of 1983, for example, the students visited Paris, Basel, Rome, Florence, Salzburg, Munich, Lienz, and Amsterdam. The semester in Britain is open mainly to juniors and seniors and attracts students from all disciplines. Weekends permit widespread touring of England, as individual students desire.

Based in Munich, Bavaria, the liberal arts program in Germany operates during the first semester of each year. Alpine scenery, romantic castles, medieval towns, and historic sites surround this friendly city. Courses in the German language are always offered, but it is not obligatory to have studied German prior to or during the semester abroad. During the first month, the group visits several parts of Germany and Austria, from cosmopolitan, contrasting East and West Berlin to small mountain towns like Lienz. Sophomores, juniors, and seniors from all majors are accepted in the Semester in Germany.

The Semester in Poland is held in Cracow, a medieval city, home of the distinguished Jagiellonian University. There our students live in a dormitory with Polish and foreign students. Classes are held, in European fashion, in various buildings in the picturesque old town. Travel-study within the country, from the Tatra mountains to the Baltic sea, is scheduled early, so the history and remarkable culture of Poland become clear as students interact freely with their Polish hosts. Classes such as Polish language, Polish history, European geography, art, and economic development enable students to understand and appreciate what they are seeing and experiencing. Exposure to Eastern Europe is a major theme of this trip, and stays in Hungary, Budapest, sometimes Prague or Zagreb, and Vienna precede entry into Poland.
The Semester in the Malaysia is liberal arts in nature and is open to sophomores, juniors, and seniors from all majors. This semester affords an apportunity to travel around the world with departure from the west coast, stops in the Orient, and return through Western Europe. A train trip to Bangkok, Thailand is also part of the travel-study experience. Residential study takes place at the University of Malaya in Kuala Lumpur. Previous foreign language training is not required, but many students enroll for Bahasa Malaysia, even though English is widely spoken throughout the country. The tropical setting provides special opportunities for learning and experience, as does the multi-cultural society of Malaysia, where Chinese, Indian, and Malaysian populations co-exist and develop together.
The Semester in Spain is also a liberal arts program. Previous knowledge of Spanish is helpful but not essential: each year some students take advantage of the opportunity to begin Spanish in the context of living among Spaniards. Housing in the heart of Madrid allows students to experience all that this exciting city offers. Courses in art history and social sciences enlarge understandings of this vibrant and rapidly changing society. Day trips to the many historic and cultural sites whithin reach of Madrid are a special feature, plus a spring excursion to southern Moorish Spain during festival time. En route and returning from Madrid, the group visits other European capitals and monuments. In Spring, 1983, they entered via Brussels, Zurich, Florence, Nice, and Barcelona. On their return, they toured the chateaus of the Loire, Paris, and Bruges.

The program in Taiwan develops a basis for comparison between tiny Taiwan, "showcase of American aid," where business and industrial development have created a high standard of living, and the huge, newly popular Mainland, where tourism continues to expand, and the most populous nation in the world proudly displays its social progress and historic sights. Students are introduced to Chinese culture and language at Soochow University in suburban Taipei. They live in an international dormitory, but have many opportunities to interact with Chinese students. They end their semester with a week in Hong Kong and a guided tour of southern China, tailored each semester according to the particular preferences of the current group. Students appreciate the opportunity, unique to this Semester Abroad, to earn personal spending money by tutoring English while at Soochow.
The first Semester in Australia will take place in January 1984. It will be located in Sydney, capital of New South Wales, and will feature a three-week study tour plus a week's break, during which students may travel as they wish through this immense continent. Subsequent programs may be shifted to an August departure, and a location in tropical Queensland. Sophomore, junior, and senior students from all majors will be accepted into this new program, whose first leader will be from the College of Natural Resources. He will offer courses dealing with the environment, but the major thrust of the program will continue to be liberal arts. Courses designed to increase understanding of Australian culture will be taught by local professors.
Students from UW-SP or other universities who are interested in applying for the Semester Abroad programs may secure application forms and additional information by writing to the director. Early application is suggested.
A summer program in natural resources management is offered annually through the College of Natural Resources in cooperation with the Baden-Wurttemberg, Germany, Ministry for Nutrition, Agriculture, and Environment. The one-month program is available to qualified juniors, seniors, and graduate students. Center for study is the Hornberg Castle located in the Black Forest.

Other summer and interim programs are developing: up-to-date information can be had by calling or writing International Programs.

## College of Fine Arts

Paul M. Palombo, Dean

Room A 202, College of Fine Arts Building
Phone: (715) 346-4920
At Stevens Point the Fine Arts and Communication are a central concern in the education of all students. They are taught for humanistic purposes, and for professional and artistic purposes. The four departments of the College of Fine Arts offer professional instruction in various aspects of the Visual Arts, Communication, Dance, Music, and Pre-Architecture, for the purpose of preparing students for entry into a professional career. The emphasis is on the understanding and develoment of the concepts, sensitivities, and skills essential to the professional preparation of our students. We seek to improve the human condition through the Fine Arts and Communication.

## Program

Three types of educational experience are offered:
(1) Courses of study in history, criticism, theory, and practice; (2) Practical application laboratories, field experience, and internships; (3) Production activities such as art exhibits, concerts, plays, forensics, radio, television, and film. These activities are open to all University students, and many are available for credit. Attendance at all productions is open to all students enrolled in the University, as well as to the general public. In summary, the College of Fine Arts merges both curricular and co-curricular aspects into a single program. This serves three groups: the fine arts majors, the general student body, and the general public.

## Degrees

Student majors in Communication and Theatre Arts may elect either the Bachelor of Arts Degree or the Bachelor of Science Degree. Student majors in Art elect the Bachelor of Fine Arts Degree. Student majors in Music elect the Bachelor of Music Degree. All departments offer programs leading to teacher certification.

## Curriculum for the Bachelor of Arts Degree

## NOTES:

1. General requirements for the degree (paragraphs I. through XI., below), a major study, and approved electives to total 124 credits are required. (This includes 120 credits for 1 . through X ., in addition to the required physical education, XI.)
2. At least 40 credits must be earned in courses numbered 300 or above. The dean of the col-

lege may, at his discretion, accept a minimum of 32 credits.
3. Pass-Fail credits may not be used to satisfy the general requirements listed in I. through $X$., below.
4. The "One Hundred Credit Rule." At least 100 of the 124 credits must be earned in courses offered in the College of Letters and Science and the College of Fine Arts, except that:
a. All credits required for majors or minors acceptable in the College of Fine Arts or the College of Letters and Science will count as Letters and Science or Fine Arts credits.;
b. All credits earned in completion of the general requirements for the degree (paragraphs I. through $X$. below) will count as part of the 100 credits;
c. Students who complete a major or minor in a college other than Letters and Science or Fine Arts may count as many as 22 of the required credits in that major or minor as part of the 100 credits.
5. Candidates for the degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.
I. English-six credits: English 101, and 102; or exemption as defined by departmental policy.
II. Communication-two or three credits: Communication 101 or 335 , or exemption as defined by departmental examination.
III. Foreign Language - sixteen credits, or four acceptable high school units, in one language; or
placement by examination and completion of the foreign language requirement sequence. (Placement level 101, sixteen credits required; level 102, twelve credits; level 211, eight credits; level 212 , four credits.)
Students with the appropriate sixteen credits placement (1) are exempt from this requirement; or (2) may take an additional three credits at the 300 -level, attain a grade of $C$ or better, or be awarded the sixteen foreign language credits.
IV. Literature and Selected Humanities-eighteen credits.
A. Six credits of literature in English (211 and 212, or 213 and 214).
B. Twelve credits in two areas from group 1 below; OR six credits in one area from group 1, AND six credits in one area from group 2:
Group 1:
Art History-Art 282, 283.
Drama 351, 352.
Music 326; and 220 or 221 or 320 or 321.
Philosophy 217, 218.
Religious Studies 100, 101.

## Group 2:

American Literature-English 213, 214.
English Literature-English 211, 212.
Colloquium-six credits selected from 301, 302, 303, 304.
Comparative Literature 101, 102.
French Literature 341, 342.
German Literature 441, 442.
Spanish Literature 341 and 342; or 353 and 354.
V. Art of Reasoning and Criticism-three credits, selected from Communication 207, 319; Drama 490 - Drama Criticism; English 380; Philosophy 221, 303, 305.
VI. History-six credits, selected from one of the following sequences.
American-History 211, 212.
Chinese-History 345, 346.
East Asian-History 215, 216.
European-History 105, 106; or 107, 108.
Japanese-History 347, 348.
Latin American-History 253, 254.
Middle Eastern-History 219, 220.
Russian-History 337, 338.
VII. World Viewpoint-Zero to three credits, to be fulfilled by $A, B$, or $C$ :
A. One course from the following:

Anthropology 335, 336, 337, 370.

Art 382, 388.
Comparative Literature 250.
Economics 367.
Geography 270, 300, 301, 327, 329, 340, 368, 374.

History 327, 343.
Latin American Studies 100, 423.
Music 428.
Peace Studies 100/300, 370.
Political Science 370, 382.
Russian and East Central European Studies 297/397.
Spanish 331 (when subtitled Latin-American Civilization).
Sociology 375.
B. One course from the following list used to complete the history or selected humanities requirement:
History 215, 216, 219, 220, 253, 254.
Religious Studies 100.
C. Completion of any semester of study abroad.
VIII. Selected Social Sciences-six credits, (no more than three in any one area):
Anthropology 101.
Economics 100, 200.
Political Science 270.
Psychology 110.
Sociology 101.
IX. Mathematics-Zero to six credits:

Level II preparation, or
Level I preparation and three credits of Computer Science, or Mathematics 51 and 100.
Levels I and II preparation are determined by high school units and placement by departmental examination.
X. Natural Science-Six to ten credits (select either A or B.):
A. Eight to ten credits from the following courses:
Astronomy 105, 106, 311.
Biology 101, 130, 160.
Chemistry 101, 105, 106, 115, 116.
(See note under Chemistry.)
Geography 101, 102, 103.
Geology 101, 104, 105.
Physics 101, 103, 104, 150, 250.
In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.
Courses need not be taken in sequence nor need a sequence be completed except that stated prerequisites must be met.
B. Two courses selected from Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
XI. Physical Education 101-four credits (compe-tency-equivalency examination may be used to waive two credits).
Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.
Some courses in Dance may be applied toward this requirement. See the statement under Dance, in the section COURSES OF INSTRUCTION.
Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective credit options and count toward graduation.

## Curriculum for the Bachelor of Fine Arts Degree

(See the statement under the Curriculum for the Bachelor of Science Degree a few pages later in this catalog.)

## Curriculum for the Bachelor of Music Degree

I. English-six credits: English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101 or any equivalent performance course in oral communication.
III. One of the following:
A. Foreign Language - eight credits.

The equivalent of one year of college work in one language must be completed before credit will count toward this requirement.
Students will be placed in foreign language courses on the basis of their high school records, or a placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by two acceptable units of high school work completed in one language. Normally, an acceptable unit is one year's work with a grade of C or better.
B. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records, and the mathematics placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathematics. Acceptable work is an average of C or better in the aggregate of three units.
Foreign Language and Mathematics courses taken on Pass-Fail may NOT be used to satisfy this requirement.
IV. History-six credits: History 107 and 108, or 307 and 308 , or 211 and 212.
(Students seeking teacher certification must complete this requirement by taking six credits in American history.)
V. Humanities-nine credits, selected so as to include courses in at least two of the following groups:
A. History and appreciation of art, dance, music, theater; history of art, dance, music, theater.
B. Any literature course may be used to satisfy this requirement; except that if the survey course in Dramatic Literature or American Literature or English Literature is selected, the full year course must be completed to be credited on this requirement.
C. Philosophy (logic and philosophy of science excluded), colloquium.
VI. Social Studies-nine credits, selected so as to include courses in at least two of the following groups:
A. Economics.
B. Human Geography (courses numbered 110226; 300-340; 368-375; 479).
C. History (in addition to IV., above).
D. Natural Resources 370.
E. Political Science.
F. Psychology.
G. Sociology and Anthropology.
VII. Natural Science. Select either A or B.
A. Eight to 10 credits from the following courses:

1. Astronomy 105, 106, 311.
2. Biology 101, 130, 160.
3. Chemistry 101, 105, 106, 115, 116. (See note under Chemistry.)
4. Geography 101, 102, 103.
5. Geology 101, 104, 105.
6. Physics 101, 103, 104, 150, 250.

In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.
Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
For students taking the Bachelor of Music Degree in Applied Music this requirement may be reduced to five credits with two acceptable units of high school science, or may be eliminated with three acceptable units of high school science. An acceptable unit is one year of work with a grade of $C$ or better.
B. Three courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding, and appreciation of the science and its significance in man's attempt to prosper in his environment.
Substitution for the courses listed in this requirement may be accepted with the consent of the Dean of the College of Fine Arts.
VIII. Physical Education 101-four credits. Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.

Some courses in Dance may be applied toward this requirement. See the statements under Dance, in the section COURSES OF INSTRUCTION.

Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits; and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective options and count toward graduation.
IX. Music as specified under "Music" in the section of the catalog describing COURSES OF INSTRUCTION. The degree is available in three options:
A. Bachelor of Music.
B. Bachelor of Music in Applied Music.
C. Bachelor of Music in Music Literature.
X. For teacher certification ONLY: Students seeking teacher certification should refer to the pertinent material under COLLEGE OF PROFESSIONAL STUDIES.
XI. Approved electives to total 120 credits in addition to required physical education and required performance ensemble. (Total academic credits and physical education: 124. Performance credits variable, normally 16. See Music Department description for qualifications and exceptions.)
XII. At least 40 credits must be earned in courses numbered 300 or above. The dean of the college may, at his discretion, accept a minimum of 32 credits.
NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records, Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of faculty during the semester or summer session in which the work is completed.

## Curriculum for the Bachelor of Science Degree and Bachelor of Fine Arts Degree

I. English-six credits: English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101 or any equivalent performance course in oral communication.
III. One of the following:
A. Foreign Language eight credits.

The equivalent of one year of college work in one language will be completed before credit will count toward this requirement.
Students will be placed in foreign language courses on the basis of their high school records or a placement examination and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by two acceptable units of high school work completed in one language. Normally, an acVT2 ceptable unit is one year's work with a grade of C or better.
B. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records and the mathematics placement examination and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathematics. Acceptable work is an average grade of C or better in the aggregate of three units.
Foreign Language and Mathematics courses taken on Pass-Fail may NOT be used to satisfy this requirement.
IV. History-six credits.

All history courses may be applied toward this requirement. The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
Students seeking teacher certification must complete this requirement by taking six credits in American history. Any American history course may be applied toward this requirement.
V. Humanities and Social Science- 18 credits, distributed as follows:
A. Humanities-nine to 12 credits, selected so as to include courses from at least two of
the following groups, with a maximum of six credits in any one group:

1. All courses in American Studies.
2. Any literature course, whether in English or another language, (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).
For a listing of specific courses which meet the Humanities requirement, see the current timetable.
B. Social Science-six to nine credits, with a maximum of six credits in any one group:
12. Economics.
13. Human Geography (courses numbered 110-226; 300-340; 368-375; 479).
14. Natural Resources 370.
15. Political Science.
16. Psychology.
17. Sociology and Anthropology.
18. Peace Studies 101, 330, 350, 370.
19. Women's Studies 105.
VI. Natural Science. Select either A or B.
A. Eight to 10 credits from the following courses:
20. Astronomy $105,106,311$.
21. Biology 101, 130, 160.
22. Chemistry 101, 105, 106, 115, 116. (See note under Chemistry.)
23. Geography 101, 102, 103.
24. Geology 101, 104, 105.
25. Physics 101, 103, 104, 150, 250.

In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.

## College of <br> Fine Arts

Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
B. Three courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding, and appreciation of the science, and its significance in man's attempt to prosper in his environment.
Substitution for these courses listed in this requirement may be accepted with the consent of the Dean of the College of Fine Arts.
VII. Physical Education 101-four credits. Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be șpread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.
Some courses in Dance may be applied toward this requirement. See the statements under Dance, in the section on COURSES OF INSTRUCTION.
Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective options and count toward graduation.
VIII. Major study and approved electives to total 120 credits in addition to required physical education (total: 124 credits).
IX. At least 40 credits must be earned in courses numbered 300 or above. The dean of the college may, at his discretion, accept a minimum of 32 credits.
NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.

## Teacher Certification

Students who wish to qualify for certification to teach at the secondary school level, with a major offered in the College of Fine Arts, have two options available:
Option I. In the College of Professional Studies they must complete:
A. The general requirements for the Bachelor of Science degree in the College of Professional Studies.
B. The specified major under plan I, II, or III as listed under major-minor options in secondary education.
C. The professional education sequence established for certification in secondary education.
Option II. In the College of Fine Arts, they must complete:
A. The general requirements for the Bachelor of Arts or Bachelor of Music or Bachelor of Science degree in the College of Fine Arts.
*B. The specified major under plan II, II, or III as listed under major-minor options in secondary education.

* C . The professional education sequence for those seeking teacher certification at the secondary school level, including 20 credits in the following courses: Education 330-340 or Art Ed 331, or Mus-Ed 325-326 or Comm Ed 380 (two credits in the major field and two credits in the minor field, if required); Education 380, 381, 398. (Psychology 200 is a prerequisite for Education 381.) Students not having a minor will elect at least two credits of other education courses. (Additionally, students are advised to take Education 386.)

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# College of Letters and Science 

Howard Thoyre, Dean

William A. Johnson, Assistant Dean
Room 123, Collins Classroom Building
Phone: (715) 346-4224
The University of Wisconsin-Stevens Point offers courses in Letters and Science leading to the Bachelor of Arts and Bachelor of Science degrees.
The select mission of the University of Wisconsin-Stevens Point established by the Board of Regents includes the stipulation that "The University should offer a broad base of fine arts and liberal studies and degrees both for the development of students and upon which education in the professional fields can be built.
The College of Letters and Science has the major responsibility for fulfillment of this mission. Specifically, it is the mission of the College of Letters and Science to help students to understand, effectively use, and appreciate the process of learning; to assist students to gain an appreciation for complex problems and to enhance their ability to develop creative solutions; to provide a breadth and depth of programs in the humanities, sciences, and social sciences through appropriate disciplinary and interdisciplinary perspectives; to offer courses to support University programs and career preparation at the undergraduate and graduate levels; to nurture an environment which promotes a community of faculty and students which values and strives for high standards of academic achievement; to promote teaching excellence, scholarship, and professional development of all faculty: and to provide support for educational outreach.

## Advisers

Each student in Letters and Science is assigned to an adviser in accordance with the stated policy of the University. The adviser is available to assist him in meeting academic requirements for graduation. It is recommended that the student consult his adviser at the time he makes his course selections, but the student must realize that it is his own responsibility to meet all college and University requirements, rules, and regulations.
Students who have not declared a major will be advised by the Academic Advising Center (Room 106, SSC). All other students are required to obtain the signature of an authorized adviser in their major department.
By the time the student has earned 56 credits (exclusive of required physical education) he must have se-

lected the area of his major study. At that time and thereafter, the chair of the student's major department may assign an adviser who will assist the student in developing his program of studies.

## Semester Study Load

In order to graduate, a student must earn 120 credits in addition to credits in required physical education.

A normal (average) study load in the College of Letters and Science is 15 academic credits per semester plus one credit of physical education when required. In order to approximate an average of 15 academic credits per semester, students usually register for 12 16 academic credits per semester plus one credit of physical education each year. This is considered a "normal" study load.

A student desiring to carry 18-20 academic credits (exclusive of required physical education) must secure permission from the Academic Advising Center.
A student who desires to carry 21 or more credits must secure the permission of the Dean of the College. Each request would be considered on its own merits, although permission would be granted only for highly extraordinary reasons and when a student possesses a long-standing exceptional academic record.

## Curriculum for the Bachelor of Arts Degree

## Notes:

1. General requirements for the degree (paragraphs I. through XI., below), a major study, and approved electives to total 124 credits are required. (This includes 120 credits for I. through $X$., in addition to the required physical education, XI.)
2. At least 40 credits must be earned in courses numbered 300 or above. The Dean of the Col-
lege may, at his discretion, accept a minimum of 32 credits.
3. Pass-Fail credits may not be used to satisfy the general requirements listed in I. through X., below.
4. The "One Hundred Credit Rule." At least 100 of the 124 credits must be earned in courses offered in the College of Letters and Science and the College of Fine Arts, except that:
a. All credits required for majors or minors acceptable in the College of Fine Arts or the College of Letters and Science will count as Letters and Science or Fine Arts credits;
b. All credits earned in completion of the general requirements for the degree (paragraphs I. through X. below) will count as part of the 100 credits;
c. Students who complete a major or minor in a college other than Letters and Science or Fine Arts may count as many as 22 of the required credits in that major or minor as part of the 100 credits.
d. No more than 12 Military Science credits may be counted toward the "One Hundred Credit Rule" for students in the College of Letters and Science.
The Dean of the College of Letters and Science will evaluate credits transferred from other institutions to determine compliance with this rule.
5. Candidates for the degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.
I. English-six credits: English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two or three credits: Communication 101 or 335 , or exemption as defined by departmental examination.
III. Foreign Language-sixteen credits, or four acceptable high school units, in one language; or placement by examination and completion of the foreign language requirement sequence. (Placement level 101, sixteen credits required; level 102, twelve credits; level 211, eight credits; level 212, four credits.)

Students with the appropriate sixteen credits placement (1) are exempt from this requirement; or (2) may take an additional three credits at the 300 -level, attain a grade of C or better, and be awarded the sixteen foreign language credits.
IV. Literature and Selected Humanities-eighteen credits.
A. Six credits of literature in English (211 and 212, or 213 and 214).
B. Twelve credits in two areas from group 1 below; OR six credits in one area from group 1, AND six credits in one area from group 2;

## Group 1:

Art History—Art 282, 283.
Drama 351, 352.
Music 326; and 220 or 221 or 320 or 321.
Philosophy 217, 218.
Religious Studies 100, 101.

## Group 2:

American Literature-English 213, 214.
English Literature-English 211, 212.
Colloquium-six credits selected from 307 , 302, 303, 304.
Comparative Literature 101, 102.
French Literature 341, 342.
German Literature 441, 442.
Spanish Literature 341 and 342; or 353 and 354.
V. Art of Reasoning and Criticism-three credits, selected from Communication 207, 319; Drama 490 - Drama Criticism; English 380; Philosophy 221, 303, 305.
VI. History-six credits, selected from one of the following sequences:
American-History 211, 212.
Chinese-History 345, 346.
East Asian-History 215, 216.
European-History 105, 106; or 107, 108.
Japanese-History 347, 348.
Latin American'-History 253, 254.
Middle Eastern-History 219, 220.
Russian-History 337, 338.
VII. World Viewpoint-Zero to three credits, to be fulfilled by A, B, or C:
A. One course from the following:

Anthropology 335, 336, 370.
Art 382, 388.
Comparative Literature 250.
Economics 367.
Geography 270, 300, 301, 327, 329, 340, 368, 374.

History 327, 343.

Latin American Studies 100, 423.
Music 428.
Peace Studies 100/300, 370.
Political Science 370, 382.
Russian and East Central European Studies 297/397.
Spanish 331 (when subtitled Latin-American Civilization).
Sociology 375.
B. One course from the following list used to complete the history or selected humanities requirement:
History 215, 216, 220, 253, 254.
Religious Studies 100.
C. Completion of any semester of study abroad.
VIII. Selected Social Sciences-six credits, (no more than three in any one area):
Anthropology 101.
Economics 100, 200.
Political Science 270.
Psychology 110.
Sociology 101.
IX. Mathematics-Zero to six credits:

Level II preparation, or
Level I preparation and three credits of Computer Science, or Mathematics 51 and 100.
Levels I and II preparation are determined by high school units and placement by departmental examination.
X. Natural Science-Six to ten credits (select either A or B.):
A. Eight to ten credits from the following courses:
Astronomy 105, 106, 311.
Biology 101, 130, 160.
Chemistry 101, 105, 106, 115, 116.
(See note under Chemistry.)
Geography 101, 102, 103.
Geology 101, 104, 105.
Physics 101, 103, 104, 110, 211, 212.
In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.
Courses need not be taken in sequence nor need a sequence be completed except that stated prerequisites must be met.
B. Two courses selected from Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
XI. Physical Education 101-four credits (compe-tency-equivalency examination may be used to waive two credits).

Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.
Some courses in Dance may be applied toward this requirement. See the statement under Dance, in the section COURSES OF INSTRUCTION.
Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective credit options and count toward graduation.

## Curriculum for the Bachelor of Science Degree

I. English-six credits: English 100 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101 or an equivalent performance course in oral communication.
III. Foreign Language-eight credits.

The equivalent of one year of college work in one language must be completed before credit will count toward this requirement.
Students will be placed in foreign language courses on the basis of their high school records, or a placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by two acceptable units of high school work complete in one language. Normally, an acceptable unit is one year's work with a grade of C or better.

Courses taken on Pass-Fail may NOT be used to satisfy this requirement.

## IV. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records, and the mathematics placement examination and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathematics. Acceptable work is an average grade of $C$ or better in the aggregate of three units. $A$ unit is one year's work.
Courses taken on Pass-Fail may NOT be used to satisfy this requirement.
V. History-six credits:

All history courses may be applied toward this requirement. The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
(Students seeking teacher certification must complete this requirement by taking six credits in American history. Any American history course may be applied toward this requirement.)
VI. Humanities and Social Science- 18 credits, distributed as follows:
A. Humanities-nine to 12 credits, selected so as to include courses from at least two of the following groups, with a maximum of six credits in any one group.

1. All courses in American Studies.
2. Any literature course, whether in English or another language, (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).
For a listing of specific courses which meet the Humanities requirement, see the current timetable.
B. Social Science-Six to nine credits, with a maximum of six credits in any one group:
12. Economics.
13. Human Geography (courses numbered 110-226; 300-340; 368-375; 479).
14. Natural Resources 370.
15. Political Science.
16. Psychology.
17. Sociology and Anthropology.
18. Peace Studies 101, 330, 350, 370.
19. Women's Studies 105.
VII. Natural Science. Select either A. or B.:
A. Eight to 10 credits from the following courses:
20. Astronomy $105,106,311$.
21. Biology 101, 130, 160.
22. Chemistry $101,105,106,115,116$. (See Note under Chemistry.)
23. Geography 101, 102, 103.
24. Geology 101, 104, 105.
25. Physics 101, 103, 104, 150, 250.

In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.
Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
B. Three courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding, and appreciation of the science, and its significance in man's attempt to prosper in his environment.
Substitution for the courses listed in this requirement may be accepted with the consent of the Dean of the College of Letters and Science.
VIII. Physical Education 101-four credits.

Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).

The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.
Some courses in Dance may be applied toward this requirement. See the statement under Dance, in the section COURSES OF INSTRUCTION.

Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.

Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective credit options and count toward graduation. (See restrictions in XI., below.)
IX. Major and approved electives to total 120 credits in addition to required physical education (total: 124 credits).
X. At least 40 credits must be earned in courses numbered 300 or above. The dean of the college may, at his discretion, accept a minimum of 32 credits.
XI. The "One Hundred Credit Rule"-At least 100 of the 120 credits (exclusive of required physical education) must be earned in courses offered in the College of Letters and Science and the College of Fine Arts, except that:

1. All credits required for majors or minors acceptable in the College of Letters and Science will count as Letters and Science credits;
2. All credits earned in completion of the preceding general degree requirements, through item VII., for a Letters and Science degree will count as part of the 100 credits;
3. Students who complete a major or minor in a college other than Letters and Science or Fine Arts may count as many as 22 of the required credits as part of the 100 credits.
4. No more than 12 Military Science credits may be counted toward the "One Hundred Credit Rule" for students in the College of Letters and Science.
The Dean of the College of Letters and Science will evaluate credits transferred from other institutions to determine compliance with this rule.
NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.

## Teacher Certification

Students who wish to qualify for certification to teach at the secondary school level, with a major offered in the College of Letters and Science, have two options available:

Option I. In the College of Professional Studies, they must complete:
A. The general requirements for the Bachelor of Science degree in the College of Professional Studies.
B. The specified major under plan I, II, or III, as listed under major-minor options in secondary education.
C. The professional education sequence established for certification in secondary education.
Option II. In the College of Letters and Science, they must complete:
A. The general requirements for the Bachelor of Arts or Bachelor of Science degree in the College of Letters and Science.
*B. The specified major under plan I, II, or III, as listed under major-minor options in secondary education.
"C. The professional education sequence established for certification in secondary education.

## Major Study

By the time 56 academic credits have been earned (exclusive of required physical education) the student must declare the intention to major in a given department. This is accomplished at registration by filling in

[^1]the appropriate blank on the registration card with the name of the major. A department may refuse to accept or to continue a student for major study in that department if the student's general academic record does not satisfy regulations established by the department and the University. See the statement headed "Department Acceptance of Major Candidates" in the section of the catalog headed ACADEMIC WORK.
Acceptable majors in the College of Letters and Science are: American studies, anthropology, biology, business administration, chemistry, economics, English, French, general science (Paragraph A under general science in section COURSES OF INSTRUCTION), geography, German, history, Latin American studies, managerial accounting, mathematics, philosophy, physics, political science, psychology, Russian and East Central European studies, social science (Paragraph A under social science in section COURSES OF INSTRUCTION), sociology, and Spanish.

## Minor Study

The Letters and Science degree does not require a minor, but any minor listed in the catalog may be completed. Students at the junior level should, if they intend to declare a minor, indicate this intent by filling in the blank for the minor on the registration card. The minor need not be in any of the departments of the College of Letters and Science, so long as the "One Hundred Credit Rule" is observed. (See Paragraph XI, in the statement of the curriculum for the degree.)

A department may refuse to accept or to continue a student for minor study in that department if the student's academic record does not satisfy regulations established by the department and the University. See the statement headed "Department Acceptance of Candidates for Majors and Minors" in the section of the catalog headed ACADEMIC WORK.

## Anthropological Studies Institute

The Anthropological Studies Institute was established in 1982 to support research and workshops in archaeology and anthropology for the non-university community. Offerings include weekend archaeological workshops for families, and evening programs throughout the year for the general public. For information call or write to the Department of Sociology and Anthropology, Room 488, Collins Classroom Building; Phone: (715) 346-3060.

## Center for the Small City

The Center for the Small City is a unit in the College of Letters and Science and is affiliated with the University of Wisconsin-Stevens Point Foundation. The

Center's multiple activities address the policies, problems, and dynamics of small cities. Specific programs include national conferences on the small city and regional community; the publication of the Proceedings of the conferences; workshops and seminars for elected officials, government staff, businessmen, teachers, and interested citizen groups; and resource center for the study and understanding of small cities. Additionally, the Center administers a minor in Small City Analysis, which is multidisciplinary in character. The nationally recognized Center promotes research and understanding of communities below 50,000 population. An emphasis is placed on the interaction between applied professionals in small cities and members of the University community interested in small cities.

## Preparation for Professional Study

Students planning to enter various professional schools complete part of their college work before being admitted to professional study. A student with such an objective may register in Letters and Science and will be assigned an adviser familiar with the requirements of the profession which he plans to follow. The student will plan his studies within the curriculum of either the Bachelor of Arts or the Bachelor of Science degree and will be responsible for his. professional studies.
General descriptions of requirements for some professions are given on the following pages. More specific suggestions will be sent upon request. Different schools training for the same profession sometimes require different preprofessional studies; hence each student must be acquainted with the requirements of the school which he plans to enter and should consult carefully and frequently with his adviser. The problems confronting each student are given careful consideration by his adviser and the Dean of Letters and Science. However, the student is responsible for meeting all college and University requirements, rules, and regulations.

## Dentistry

Students preparing to enter dental college should take a course similar to those in the premedical curriculum. There are certain basic predental education courses which must be completed prior to enrollment in dental school. Since the dental schools vary regarding required predental education courses, it is essential that the applicant check the specific admission requirements of each school in which he or she is interested. Some dental schools require only two years of predental education. However, over 80 percent of the students accepted have at least a baccalaureate degree. All dental schools require candidates to participate in the Dental Admission Testing Program exam which is given twice a year, usually
during October and April. Application deadline dates for the Dental Admission Test are usually one month before the exam.
Students pursuing a career in dentistry should consult regularly with the dentistry adviser on campus to plan their undergraduate curriculum and to remain informed of changes in the required and recommended courses of specific dental schools.

## Education

A student who is considering preparation for teaching should follow the general requirements for the Bachelor of Science degree. He should include the specific requirements of that college and of the major and minor study which he plans to pursue.
Students who have not determined the teaching area for which they will study should consult not only their advisers but also the Assistant Dean of the School of Education.

## Engineering and Scientific Research

The requirements for professional and graduate study in the fields of engineering and research vary with the specialization but are centered in mathematics and sciences, and often necessitate foreign language ability for research. From one to four years' preparation for these professions (depending upon the specialization) may be completed at Stevens Point. Advisers assist in the student's selection of studies, which should lead toward the Bachelor of Science degree.

## Law

Students considering a career in law normally must complete either a Bachelor of Arts or Bachelor of Science degree. The law school admission process is quite competitive; a high grade point average, strong LSAT scores, and solid letters of recommendation are necessary. Although law schools do not specify a particular undergraduate major, most prelaw students take their degrees in a social science or in business. UW-SP prelaw advisers in the Department of Political Science stress a broad undergraduate program, exposing prelaw students to philosophical
and social science approaches to problem-solving. Stevens Point has an excellent record in placing superior students in outstanding law schools.

## Medicine

A student preparing for a career in medicine should register as a candidate for either the Bachelor of Science or the Bachelor of Arts degree. The candidate may integrate the premedical course requirements with those for a degree in almost any other major field. Of all students accepted into medical schools, however, over 80 percent major in Biology or Chemistry or both.
Competition for admission to medical schools is keen. Nationwide, the acceptance rate is less than 25 percent. It is much higher, however, for state residents at the two Wisconsin medical schools. Primary considerations for admission are: (1) a B-plus average through the junior year; (2) above average scores on the New Medical College Admissions Test (New MCAT); (3) relevant work experience; (4) recommendations; and (5) an interview. The New MCAT assumes college-level chemistry and physics and, therefore, is usually taken in the spring (April) of the junior year. It may be repeated in the fall (September) of the senior year. Recommended, but not required by all medical schools: calculus, humanities, and psychology. Application forms and New MCAT registration forms are available from the premedical adviser. Stevens Point has a good record of its graduates being accepted by medical schools.

## Mortuary Science

This University provides the two years of pre-professional training necessary to enter a mortuary school.

## Other Pre-Professional Studies

The College of Letters and Science will endeavor to assist students who plan to enter other fields by assigning an adviser. However, each student needs to be acquainted with the requirements of the school which he or she plans to enter, and should consult carefully and frequently with his or her adviser.

## College of Natural Resources <br> 67

## College of Natural Resources

Daniel O. Trainer, Dean<br>James G. Newman, Assistant to the Dean<br>Room 136, College of Natural Resources Building Phone: (715) 346-4617 or 346-2853<br>The University of Wisconsin-Stevens Point offers curricula in natural resources leading to the Bachelor of Science degree in the following disciplines:

## Forestry

The basic mission of the forestry program is to train undergraduates for forest management positions with public agencies and industries. Forestry and the other resource disciplines are closely integrated to provide a solid background for forest ecosystem management. This program is fully accredited by the Society of American Foresters.

## Resource Management

This curriculum allows for different concentrations in disciplines which depend on a broad, general background. Minimum requirements are not sufficient, in most cases, to achieve professional development. Therefore, a concentration in one of the following fields is strongly recommended: park management and outdoor recreation, land use planning, environmental law enforcement, or environmental or outdoor education. Due to the flexibility of the program it is also recommended that the student work closely with his/her adviser on course selection.

## Soil Science

A curriculum which emphasizes the basic sciences to provide an understanding of soil properties and processes in order to wisely manage land for any purpose. This curriculum meets the requirements for a soil scientist as set forth by the Soil Science Society of America.

## Water Resources

This curriculum offers options in fisheries, limnology, water chemistry, and watershed management. Within these options, students can prepare for careers in fish management or research, aquatic biology, pollution abatement, or water management with private firms or with government agencies.

## Wildlife Management

The wildlife curriculum offers study in wildlife ecology and management. The program prepares the student for graduate school, for management positions

at the bachelor of science level, and meets the curricular requirements for certified wildlife biologist as set forth by the Wildlife Society.

## Paper Science

The department of Paper Science offers a curriculum which is designed to develop an individual who is well versed in the physical and engineering sciences and who understands the interrelationships among these disciplines in order to apply them as an industrial scientist or engineer and ultimately as a member of management in the paper and allied industries.

Details of these curricula are located in the section COURSES OF INSTRUCTION.

Minor studies are offered in Forestry, Soil Science, Resource Management, Outdoor Education, Environmental Law Enforcement, Water Resources, and Environmental Education/Interpretation, Environmental Communication, and Wildlife.

A Master of Science degree also is offered in Natural Resources.

A six-week summer camp session is required of all College of Natural Resources majors (except Paper Science) on completion of their sophomore year. Exceptions to this requirement can be accomplished through appropriate transfer and/or alternative courses that have been approved by the student's adviser, the CNR Appeals Committee, and the Dean. This process must be completed prior to the end of the junior year. The field experience taught in Soils, Forestry, Wildlife, and Water is designed to acquaint the student with actual field experience prior to the intensive studies of the junior and senior years.

Students with majors in the College of Natural Resources who are also candidates for secondary school teaching will enroll as freshmen in the College of Natural Resources and apply before their jun-
ior year for admission to the College of Professional Studies.

## Central Wisconsin Environmental Station

Richard J. Wilke, Director

Room 122, College of Natural Resources Building
Phone: (715) 346-2076
The Central Wisconsin Environmental Station is an environmental education center sponsored by the University of Wisconsin-Stevens Point Foundation, Inc. in cooperation with the College of Natural Resources. Since its origin, the Station and its staff have sought to provide a foundation for the study of ecological principles and concepts as they relate to people and their environment. The Station attempts to provide this foundation by offering environmental education programs for elementary and secondary students, teacher groups, and the general public, as well as UW-SP students.

Located 17 miles east of the UW-SP campus, the Station has available over 500 acres of diverse Wisconsin landscape. Included are numerous ecological communities such as: coniferous and deciduous forests, bogs, fields, ponds, and four lakes. Facilities at the Station include: housing units for groups up to 60; dining facilities and food service; interpretive nature trails; a complete waterfront; and ample room for meetings and workshops.

Through the Station and its programs, UW-SP students can gain valuable practical experience in environmental education and interpretation, and, at the same time, earn college credits. Additional information on the Station and its programs can be obtained by calling either 346-2076 or 346-2028, or by writing to the Station at Route 1, Amherst Junction, Wiscon$\sin 54407$.

## Advisers

Each student in the College of Natural Resources is assigned to an adviser from the faculty of the discipline in which the student intends to major. The adviser will assist the student in selecting courses, improving abilities, making vocational plans, and other aspects of university life. The student's program must be approved each semester by the adviser. The Assistant to the Dean is the adviser to all freshmen and sophomores, except Paper Science majors.

While the adviser can guide and assist the student, the student is responsible for meeting all college and University requirements, rules, and regulations.

## Semester Study Load

In order to graduate, a student must earn 120 or 130 credits, depending on the major, in addition to credits in required physical education.

A normal (average) study load in the College of Natural Resources is 15 academic credits per semester plus one credit of physical education when required. In order to approximate an average of 15 academic credits per semester, students usually register for $12-$ 16 academic credits per semester, plus one credit of physical education each year. This is considered a "normal" study load.

The Dean's signature is required on all study list cards with a load of 18 academic credits or more.

Students who have failed to maintain an average of 15 academic credits per semester should plan to attend summer school or an extra semester.

## Curriculum for Bachelor of Science Degree

I. English-six credits: English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101, or an equivalent performance course in oral cómmunication.
III. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records, and the mathematics placement examination and will not receive credit for courses taken at the lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathematics. Acceptable work is an average grade of C or better in the aggregate of three units.
Courses taken on Pass-Fail may NOT be used to satisfy this requirement.
IV. History-six credits.

All history courses may be applied toward this requirement. The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
(Students seeking teacher certification must complete this requirement by taking six credits in American history. See the Dean of the College of Professional Studies for a list of American history courses fulfilling this requirement.)
V. Humanities and Social Science-18 credits distributed as follows:
A. Humanities-nine to 12 credits, with a maximum of six credits in any one group:

1. All courses in American Studies.
2. Any literature course, whether in English or another language, (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).
For a listing of specific courses which meet the Humanities requirement, see the current timetable.
B. Social Science-six to nine credits, with a maximum of six credits in any one group.
12. Economics.
13. Human Geography (courses numbered 110-226; 300-340; 368-375; 479).
14. Political Science.
15. Psychology.
16. Sociology and Anthropology.
17. Peace Studies $101,330,350,370$.
18. Women's Studies 105.
VI. Natural Science. Select either A. or B.:
A. Eight to 10 credits from the following courses:
19. Astronomy 105, 106, 311.
20. Biology 101, 130, 160 :
21. Chemistry 101, 105, 106, 115, 116.
(See Note under Chemistry.)
22. Geography 101, 102, 103.
23. Geology 101, 104, 105.
24. Physics 101, 103, 104, 150, 250.

In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.

Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
B. Three courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding; and appreciation of the science, and its significance in man's attempt to prosper in his environment.
Substitution for the courses listed in this requirement may be accepted with the consent of the Dean of the College of Natural Resources.
VII. Physical Education-four credits.

Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health Concepts and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college career. The same course at the same level may not be repeated for credit.
Some courses in Dance may be applied toward this requirement. (See the statement under Dance, in the section COURSES OF INSTRUCTTION.)
Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits; and as freshmen, four credits.
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective credit options and count toward graduation.
VIII. Major study and approved electives to total 120 credits in addition to required physical education (total: 124 credits), except in Forestry, Water, and Wildlife, where 130 credits are required, in addition to required physical education (total: 134 credits).
IX. At least 40 credits must be earned in courses numbered 300 or above. The dean of the college may, at his discretion, accept a minimum of 32 credits.
X. To be approved for graduation in the College of Natural Resources, the student must have a minimum grade point ratio of 2.00 in the courses required for the major, including collateral courses and summer camp. Wildlife and Forestry require 2.25.
NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.

## Teacher Certification

Students who wish to qualify for certification to teach at the secondary school fevel, with a major offered in the College of Natural Resources, have two options available:

[^2]

Option I. In the College of Professional Studies, they must complete:
A. The general requirements for the Bachelor of Science degree in the College of Professional Studies.
B. The specified major under plan I., II., or III., as listed under major-minor options in secondary education.
C. The professional education sequence established for certification in secondary education.

Option II. In the College of Natural Resources, they must complete:
A. The general requirements for the Bachelor of Science degree in the College of Natural Resources.
*B. The specified major under plan I., II., or III, as listed under major-minor options in secondary education.
*. The professional education sequence established for certification at the secondary level.


## College of Professional Studies

## College of Professional Studies

Arthur L. Fritschel, Dean

Room 112, College of Professional Studies Building Phone: (715) 346-3169
Associate Deans of the College of Professional
Studies, and Heads of the Schools:
William H. Meyer, School of Communicative Disorders.
Rússell L. Oliver, School of Education.
Alice L. Clawson, School of Health, Physical Education, Recreation, and Athletics. Mary Jo Czaplewski, School of Home Economics.
The College of Professional Studies (often referred to as COPS), is composed of the School of Communicative Disorders; the School of Education; the School of Health, Physical Education, Recreation and Athletics; and the School of Home Economics. Programs in the Gesell Institute, in Medical Technology and in Military Science (Army ROTC) are also administered in this college. Descriptions of the majors and minors are listed by departments in a later section of the catalog headed COURSES OF INSTRUCTION.

## Baccalaureate Degrees

Bachelor of Science degrees are offered in each of the schools:

The School of Communicative Disorders has a major in Communicative Disorders. It is described under that title in the section COURSES OF INSTRUCTION later in this catalog.

The School of Education with (1) a major in Elementary Education; and (2) Professional Education courses leading to teacher certification in a number of majors and minors which are listed in a later paragraph. (The Bachelor of Music degree is available for majors in Music, Applied Music, and Music Literature.)

The School of Health, Physical Education, Recreation and Athletics, with (1) three options in the major in Physical Education; and (2) minors in (a) Coaching, (b) Health Education, (c) Recreation, (d) Safety Education, and (e) Adaptive Physical Education.

The School of Home Economics, with majors in (1) Home Economics Education, meeting State of Wisconsin requirements for teacher certification; (2) Fashion Merchandising; (3) Housing and Interiors; (4) Food and Nutrition with options in (a) General Food and Nutrition, (b) Experimental Food and Nutrition, and (c) Food Service Management; (5) Dietetics; (6) Early Childhood Education, meeting State of Wisconsin requirements for teacher certification.


## Graduate Degrees

Master of Science in Teaching degrees are offered in elementary education, elementary education with emphasis in reading, or in special learning disabilities; and in biology, English, history, and social studies.

Master of Science degrees are offered in Communicative Disorders (with emphasis areas in speech and language pathology, and audiology), in home economics education, and nutrition and food science.

The Master of Arts in Teaching; the Master of Educa-tion-Professional Development; and the Master of Science in Special Education-Early Childhood: Exceptional Needs are also offered. For details, see the section entitled GRADUATE SCHOOL later in the catalog.

## Admission to the Professional Education Program

Students must file formal application for admission to an education curriculum. Forms are available in Room 442 in the COPS building.

Admission to the Professional Education Program or to the School of Education is a prerequisite for the following courses: Education 301, 304, 308, 324, 325, 328 through 340, 381, and 398.
A. Students interested in Secondary Education shall apply for admission to the professional education program during their sophomore year.

1. Each student must secure an application form from the office of the SOE Advising Center, Room 442 COPS.
2. Each applicant, after securing his application form, will see an adviser in the Advising Center of the School of Education, Room 442, COPS, or the office of the Associate Dean, SOE, Room 440, COPS.
3. Ultimate responsibility for advising in the major and minor academic areas rests with the chairpersons of the major and minor academic areas, and for advising in the professional education courses, rests with the School of Education adviser.
B. Students interested in Elementary Education may apply for admission to the Professional Education program in Room 442, COPS, during their freshman year. They may ask for an adviser from the Associate Dean, SOE, Room 442, COPS, or from the Advising Center, SOE, Room 446, COPS.
C. Students interested in Early Childhood Education may apply for admission to the Professional Education program in Room 442, COPS, during their freshman year. Advisers are assigned through the office of the Associate Dean, School of Home Economics.
D. All students must meet the following criteria for admission to the professional education program.
4. A grade point ratio of at least 2.50 in the two semesters of freshman English or appropriate CLEP test or waivers. Students who do not meet these requirements will be required to work at the Writing Laboratory until competency is verified by the lab.
5. Completion of a speech and hearing screening test. Remedial services will be made available to any person who fails any portion of the screening test and who seeks these services.
6. A GPR of at least 2.50 based on credits earned at this University.
7. Education 100.
E. Students who are denied admission to the professional education program may file a special petition with the Teacher Education Review Committee for further consideration. Provisional admission to the program may be granted in certain cases to students who do not meet all of the criteria for full admission.

Students may not enroll in specified junior and senior education courses until the criteria are met and they have been accepted into the Professional Education program. Students wishing to pursue an appeal should see the Dean of COPS in Room 112, COPS.
F. Students enrolled in the MAT program will follow the application procedure described above.

## Transfer Students

Transfer students and those who have completed a baccalaureate degree from an accredited institution (in meeting the conditions of paragraph D., above)
will be conditionally admitted to the Professional Education Program for their first semester, if they satisfy the following requirements:

1. Possess a minimum grade point ratio of $\mathbf{2 . 5 0}$.
2. Possess a grade point ratio of $\mathbf{2 . 5 0}$ or better in freshman English.
Full admission to the Professional Education Program will be granted when the other requirements have been satisfied.

Students who do not satisfy the above requirements will take the number of credits necessary at this institution to satisfy the above requirements before they may enroll in courses in the Professional Education Program.

Transfer students must earn nine credits on this campus previous to the semester in which they do their student teaching.

## Curriculum for the Bachelor of Science Degree (including teacher certification in secondary and K-12)

I. English-six credits; English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101 or an equivalent performance course in oral communication.
III. One of the following:
A. Foreign Language-eight credits.

The equivalent of one year of college work in one language must be completed before credits will count toward this requirement.
Students will be placed in foreign language courses on the basis of their high school records, or a placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed. This requirement may be satisfied by two acceptable units of high school work completed in one language. Normally, an acceptable unit is one year's work with a grade of $C$ or better.
B. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records, and the mathematics placement examination and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathemat-

## College of Professional Studies

ics. Acceptable work is an average grade of C or better in the aggregate of three units.
IV. History-six credits.

All history courses may be applied toward this requirement. The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.

Students qualifying for certification to teach at the secondary school level must meet this requirement by taking History 212. Three additional credits must be chosen from 211, 120, 130, 379, 380, 382, 385, 386, 388.
(The Bachelor of Music degree, which is described in the section on the COLLEGE OF FINE ARTS, requires History 107 and 108, or 211 and 212 , or 307 and 308.)
V. Humanities and Social Science- 18 credits, distributed as follows:
A. Humanities-nine to 12 credits, selected so as to include courses from at least two of the following groups, with a maximum of six credits in any one group:

1. All courses in American Studies.
2. Any literature course, whether in English or another language, (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).

For a listing of specific courses which meet the Humanities requirement, see the current timetable.
B. Social Science-six to nine credits, with a maximum of six credits in any one group:
*1. Economics.
2. Human Geography (courses numbered 110-226; 300-340; 368-375; 479).
3. Natural Resources 370.
4. Political Science.
*5. Psychology.
*6. Sociology and Anthropology.
*7. Peace Studies 101, 330, 350, 370.
8. Women's Studies 105.
VI. Natural Science. Select either A or B:
A. Eight to 10 credits from the following courses:

1. Astronomy 105, 106, 311.
2. Biology 101, 130, 160.
3. Chemistry 101, 105, 106, 115, 116.
(See Note under Chemistry.)
4. Geography 101, 102, 103.
5. Geology 101, 104, 105.
6. Physics 101, 103, 104, 150, 250.

In any one subject, if the course numbered 101 is used to meet this requirement, the other courses listed for that subject cannot be used.
Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
B. Three courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding, and appreciation of the science, and its significance in man's attempt to prosper in his environment.
Substitution for the courses listed in this requirement may be accepted with the approval of the Student Assistance Center.
VII. Physical Education-four credits.

Students will enroll in four credits of Physical Education 101. Two credits will be selected from group A (Leisure Pursuits) as listed in the timetable. The remaining two credits may be selected from groups A, B (Health and Safety Enhancement), or C (Athletics and Intramurals).
The credits in 101 should be spread over a three to four year period to encourage health maintenance throughout the student's college

[^3]career. The same course at the same level may not berepeated for credit.

Some courses in Dance may be applied toward this requirement. See the statement under Dance, in the section COURSES OF

## INSTRUCTION.

Students transferring from other institutions will meet this requirement on the basis of one credit per year. Thus, students entering as seniors will be required to earn one credit; as juniors, two credits; as sophomores, three credits; and as freshmen, four credits.

A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.

Students may elect additional Physical Education courses beyond the four credits required for graduation. Additional Physical Education courses satisfy general elective credit options and count toward graduation.
VIII. Major and minor studies, as required.
(See statement below regarding major-minor options in secondary education.)
IX. The required professional education sequence for those seeking certification at the secondary school level is as follows:

Education 100, 351, 355 (or substitute) 380, 381, 386. English 381 may be substituted if the candidate is an English major or minor); Methods course in the major ( $2-3 \mathrm{cr}$ ); Methods course in the minor (if the candidate desires certification in the minor) ( $2-3 \mathrm{cr}$ ); Education 398 (10-16 credits depending on the teaching option chosen). A 2.25 grade point ratio is required in each area in which a student wishes to be certified.
X. Approved electives to total a minimum of 120 credits in addition to required physical education (total: 124 credits).
XI. At least 40 credits must be earned in courses numbered 300 or above. A minimum of 36 credits may be accepted in exceptional cases with the approval of the Student Assistance Center.

NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree, not counting required physical education). No degree will be granted unless the candidate receives the approval of the faculty during the semester or summer session in which the work is completed.

## Major-Minor Options in Secondary Education

Students will meet one of the following options:
Plan I. One approved major of at least 34 credits and a minor of at least 22 credits. In a number of instances, the department requirements for a major or minor in this University exceed the number of credits required for certification.
Plan II. Two approved majors of at least 34 credits.
Plan III. One college-or university-approved broad field or comprehensive major of at least 54 credits. The broad field majors are offered only in art, communicative disorders, general science, home economics, music, social science, and physical education.
Requirements for the majors and minors are listed under the course descriptions for each department. Students working for teacher certification should note that in some cases the "teaching" major differs from the major for the student not seeking teacher certification.

## Curriculum for the Bachelor of Science Degree in Elementary Education

I. Communications, eight credits; English 101 and 102; or exemption as defined by departmental policy; Communication 101.
II. History, six credits: History 211, 212.
III. Humanities and Social Science, 18 credits:
A. Humanities, nine to 12 credits, selected so as to include courses from at least two of the following groups, with a maximum of six credits in any one group. Three credits of American or English literature are required: English 211, 212, 213, 214.

1. All courses in American Studies.
2. Any literature course, whether in English or another language, (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).
For a listing of specific courses which meet the Humanities requirement, see the current timetable.
B. Social Studies, six to nine credits, with a maximum of six credits in any one group:
12. Economics.
13. Human Geography (courses numbered 110-226; 300-340; 368-375; 479).
14. Political Science.
15. Sociology and Anthropology.
16. Peace Studies 101, 330, 350, 370.
17. Women's Studies 105.
18. Psychology
IV. Science, 11 to 15 credits; three courses required:
Astronomy 100, 311; Biology 101; Chemistry 101; Geography 101; Geology 101; Physics 101.

The student will take three science courses from different areas and not in the same areas as in high school, unless all sciences were covered in the high school work.
Students pursuing a Natural Science concentration should refer to paragraph B under "Natural Science" in the COURSES OF INSTRUCTION section later in this catalog.
V. Foreign Language, eight credits; OR Mathematics, four credits.
This requirement is automatically met in item IX, below.
VI. Physical Education, five credits: Physical Education 101 (twice, for two credits); and Physical Education 231.
VII. Professional Education, 30 to 32 credits: Education 100, 326, 351, 381, 383, 398; Instructional Resources 331.
VIII. Educational Methods, 14 credits: Education 304, 308, 324, 325, 355; Mathematics Education 229, 239; and 349 (non-center) or 346 (center).
IX. Related Professional Subject Matter, 29 credits: Art 101 or Home Economics 101; Art Education 322; English 275; Health Education 280; Mathematics 229, 239, and 349 (for non-center), or 345
and 346 (for center); Music Education 381; Psychology 110, 260.
X. Kindergarten certification is acquired by taking Education 301, and successfully completing three credits of Student Teaching in kindergarten.
XI. Area of Concentration, 15 credits: See your School of Education adviser to plan with you an area of concentration (English, Biology, Instructional Resources, etc.) appropriate to your professional needs and interests.
XII. Electives to total 130 credits are required for graduation and certification. At least 40 credits must be in courses numbered 300 and above.
XIII. Competencies:
A. Written Language: (1) a grade point ratio of at least 2.50 in Freshman English, or (2) appropriate CLEP tests or waivers. Students who do not meet the Freshman English requirement will be required to work in the Writing Laboratory until competency is verified by the laboratory director.
B. Music Accompaniment: As a prerequisite to Education 301 and Music Education 381, each student must be able to demonstrate the following skills on the piano, guitar, accordion, or autoharp:

1. Accompany with I, IV, and $\mathrm{V}^{7}$ chords one song selected from any level of an elementary basic music series.
2. Harmonize a given melody at sight. The melody will be selected from an elementary basic series book.
The instructor in Music Education 381 will listen to and judge all proficiency examinations, which will be announced each semester. Appointments must be made one week in advance of the announced date. Any deficiencies evident in the proficiency must be corrected by enrollment in Music 159, Class Piano. Passing grade in this course will satisfy the requirement; the examination need not be taken again.
C. Speech and Hearing: satisfactory performance as determined by the Center for Communicative Disorders. If a problem exists for which remediation has been recommended and is in progress, the student may be provisionally approved.
NOTE: Candidates for degrees must fill out an APPLICATION FOR GRADUATION during the registration period, or in the Registration and Records Office, at the beginning of their senior year (defined as the accumulation of 86 credits applicable toward a degree,
not counting required physical education). No degree will be granted unless the candidate receives the approval of faculty during the semester or summer session in which the work is completed.

## Curriculum in Elementary Education for County College Graduates

Graduates of the regular state approved two-year county teachers college course may be tentatively admitted to junior standing in professional education upon satisfactory evaluation of their records by the Dean of the College of Professional Studies.

## Exceptional Education

Exceptional Education programs are offered in Communicative Disorders; in Early Childhood: Exceptional Educational Needs; in Learning Disabilities; and in Physical Education: Exceptional Education. Students who are interested in these programs may contact William Meyer for Communicative Disorders; Nancy Kaufman for Learning Disabilities; and Darvin Miller for Early Childhood: Exceptional Educational Needs; and Alice Clawson for Physical Education: Exceptional Education.

## A. Certification in Communicative Disorders

The Communicative Disorders sequence allows the student to work in a public school setting with students of all ages, from pre-school through high school, and leads to teacher certification upon completion of the Master's degree. For further description of this major, see the departmental listing in the section COURSES OF INSTRUCTION.

## B. Certification in Early Childhood: Exceptional Educational Needs

This curriculum is an add-on certification program for students majoring in early childhood education, communicative disorders, or elementary education who desire to teach young handicapped children- ages 0 6 , and work with persons who have primary responsibility for their care (e.g. parents). Preparation in this area leads to teaching in mandated EC:EEN public school programs (ages 3-6). Head Start programs involving 10 percent handicapped populations, achievement centers for the handicapped (ages 0-3). and private nursery school programs serving handicapped children. Certification in EC:EEN involves completion of 26 credits of work in addition to prerequisites met in the major professional preparation program.
A graduate curriculum in EC:EEN is available to experienced teachers who desire to specialize in teaching and directing programs for young exceptional children. A combined 36 -credit degree and certification program is available in a Master of Science in

Special Education degree shared with UW-Oshkosh. Certification only at the graduate level involves completion of 24 credits of required courses.

## C. Certification in Exceptional EducationSpecial Fields

Special fields certification programs are add-on programs qualifying teachers in special fields (e.g., music and physical education) to teach exceptional children in their particular fields. In addition to completing certification in their special field, students need to complete a sequence of required courses dealing with teaching handicapped pupils in the field. Two schools/departments of the University offer addon certifications in their special teaching fields. The certifications are: 860 Physical Education and 861 Music.

## D. Certification in Learning Disabilities

Programs in learning disabilities prepare elementary and secondary teachers to work with learning disabled pupils in resource room settings; special selfcontained classrooms, and in regular classrooms either directly or as consultants to the regular classroom teachers. The two curricula that are available are:

1. The Elementary Learning Disabilities curriculum, a minor course of study for students majoring in elementary education. The certification program is K-8, involving 28 credits beyond the prerequisites met in the major preparation program.
A graduate curriculum in Elementary Learning Disabilities is available to experienced elementary teachers who desire to teach learning disabled pupils. In addition to preparation for serving as resource room and special class teachers, students in the graduate program develop skills to serve as consultants to teachers in regular classrooms. This certification program requires 27 credits and may be taken as an area of emphasis in the MSE-Elementary degree.
2. The Secondary Learning Disabilities curriculum, an add-on certification program for secondary education students. It is designed to equip students with skills in assessment, methods, and curricula for teaching learning disabled adolescents and young adults in junior and senior high schools, grades 7-12. This certification involves completing 31 credits of required course work in addition to prerequisites met in the major preparation program.
A graduate curriculum in Secondary Learning Disabilities is available to experienced secondary teachers who specialize in teaching learning disabled youth. In addition to preparation for serving as resource room and special class

## College of Professional Studies

teachers, students in the graduate program develop skills to serve as consultants to teachers in regular classrooms. Certification involves completing 30 credits of required course work.

## Teacher Certification

Students who wish to qualify for certification to teach at the secondary school level have two options available:

Option I. In the College of Professional Studies they must complete the curriculum described above.

Option II. If they have a major which is offered in another college, they may meet graduation requirements by completing:
A. The general requirements for the Bachelor of Arts, Bachelor of Music, or Bachelor of Science degree in the college offering the major. (Although Communication 101 is not required for the Bachelor of Arts degree, it is required for teacher certification.)
B. The specified major under plan I, II, or III, as listed below under major-minor options in secondary education.
C. The professional education sequence established for certification in secondary education.
The successful completion of the basic degree requirements, major-minor requirements, and the professional education sequence described above enable a graduating senior to apply for an initial threeyear license to teach in Wisconsin, in accordance with the certification requirements set up by the State Department of Public Instruction. The secondary education curriculum prepares students for teaching positions in grades seven through 12 in the junior and/ or senior high schools. Applications for the license should be filed with the office of the Dean of the College of Professional Studies. License applications can be processed ONLY after the bachelor's degree has been awarded.

## Additional Certification Requirements

## A. Human Relations Requirement

All persons seeking initial certification must complete the six standards of the Human Relations Requirement established in the Administrative Code of the Wisconsin Department of Public Instruction. Students may obtain the Human Relations requirement checklist from the office of the Dean of the College of Professional Studies when they apply for admission to the Professional Education program.
Some of the Human Relations standards are automatically fulfilled by the Education require-
ments. Parțicular attention should be given to the following Standards:
Standard III. History 212 is required. Three additional credits must be chosen from History 120, $130,211,379,380,382,385,386,388$. These courses also apply to the history requirement for a degree.
Standard V. Direct Involvement: Sociology 105; OR A non-credit option planned with the. Dean of COPS, which may encompass tutoring, counseling, and other similar activities fulfilling the human relations guidelines.
There are some exceptions in the Education requirements for some majors. Students are urged to see their advisers early for specific information and guidance. In the final semester students must file their approved Human Relations checklist with their application for certification in the office of the Dean of the College of Professional Studies.

## B. Exceptional Education

Students seeking certification need to meet the DPI requirement in Exceptional Education by taking Education 351 and Education 355. Courses in some majors (Communicative Disorders, HPERA, Home Economics) may substitute for Education 355. Students should check with advisers for approved substitutions.

## C. Reading

All persons seeking certification must satisfactorily complete at least one discrete course in the teaching of reading. This requirement may be met by taking Education 308, 326 (elementary) or 386/586 (secondary). English majors or minors meet the requirement by taking English 381/581.

## D. Basic Skills

It is anticipated that freshmen entering in the fall of 1983 and thereafter will be required to demonstrate competency in five basic skills areas. This requirement must be satisfied prior to being admitted to student teaching. The five areas are Writing, Reading, Speaking, Math, and Listening. Further information is available through the Office of the Dean of COPS and from academic advisers.

## Major and Minor Areas for Teacher Certification

| Area | Major | Minor |
| :---: | :---: | :---: |
| American Studies | $X(1)$ |  |
| Anthropology | X(1) | $X(1)$ |
| Art K-6, K-12, 7-12. | X | X |
| Biology. | $X(1)$ | X |
| Business Education | X |  |


(1) Students who major or minor in any of the social sciences (anthropology, economics, geography, history, political science, and sociology) are required by statute to take Economics 200 or 372. Students who major or minor in any of the social sciences or in any of the sciences (biology. chemistry, and physics) are required by statute to take Natural Resources 370. (Substitutes may be approved by the Head of the School of Education.)
(2) A master's degree is required for certification.
(3) May be secured through the School of Home Economics.
(4) Minor in Instructional Resources leads to certification as school librarian and as audiovisual director.
(5) Major in music leads to certification in Instrumental K-12, Vocal K-12, or Instrumental and Vocal K-12.
> (6) Leads to certification in conservation.

> A department may refuse to accept a student for major or minor study if the student's general academic record is not satisfactory to that department. The department is also empowered to disapprove a student's retention as a major or minor if his achievement does not continue to meet the standards of that department.

## Certification in Kindergarten

Students wishing to prepare for kindergarten teaching may do so in one of two ways: (1) majoring in Early Childhood Education, which leads to nursery school and kindergarten certification only; (2) majoring in Elementary Education and taking the kindergarten option listed above, which certifies the graduate for grades K-8.

## Centers for the Study of Teaching

Pre-student-teaching centers have been established at the primary and intermediate grade levels and for secondary schools. Teacher candidates work in a public school with teachers and students while taking professional education courses.
These centers meld theory and practice before the student teaching experience and assist students in determining whether or not they wish to teach before being locked into the curriculum. Students desiring to study teaching at such centers should plan their programs with their advisers before taking professional education courses. Information about these centers may be obtained from Dr. Betty Allar, Coordinator of the Center, or the Associate Dean of the School of Education.

## Student Teaching

Thomas J. Hayes, Director, Student Teaching and Laboratory Experiences
Room 114, College of Professional Studies Building Phone: (715) 346-2440 or -2449
This final step in the sequence of teacher preparation is of extreme importance since it involves experience in an actual classroom situation. Ten to sixteen credits of student teaching (Education 398) are required for graduation and recommendation for teacher certification. The organization of the overall program is the responsibility of the Director of Student Teaching, who works closely with student teachers, members of the University faculty, and administrators and teachers in the cooperating schools.
Students are placed for student teaching in many different schools that cooperate with the University in this important phase of teacher education. Placements are made by the Student Teaching Office and location decisions are based on a combination of

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things such as availability of qualified cooperating teachers, type of curriculum used, type of school organization, number of student teachers in the area, distance from the University, and choice of the student.

A student should not plan to do student teaching in his home town or in a school from which he has graduated or in a school district in which a relative is currently employed or serves as a school board member. A student should not plan to take other classes while student teaching or interning.

All students in education are to attend orientation meetings held during the semester prior to student teaching. Information relative to requirements for student teaching, location, and levels of teaching is provided in these meetings.

Transfer students must do nine credits of work on this campus previous to the semester in which they do their student teaching.

## Student Teaching-Early Childhood Education

The student should apply at the Office of Student Teaching for admission to student teaching.

Requirements for admission to student teaching at the early childhood level are:

1. Completion of application forms for student teaching.
2. Admission to the Professional Education program.
3. A cumulative grade point ratio of 2.50 or better.
4. Completion of techniques courses in Early Childhood Education.
5. Recommendation from the head of the School of Home Economics.
6. A medical statement indicating the student is free from tuberculosis based on an examination within the last year.
Students will enroll in Education 398 (Student Teaching) for 16 credits. One half of the semester, 8 credits, will be in Kindergarten and one half, 8 credits, in a pre-school situation. This is a complete semester on a full-day basis

## Student Teaching-Elementary Education

The student should apply at the Office of Student Teaching for admission to student teaching.

Requirements for admission to student teaching at the elementary level are:

1. Completion of application forms for student teaching.
2. Admission to the Professional Education Program.
3. A cumulative grade point ratio of 2.50 or better for student teaching and of 2.75 for internship.
4. Completion of techniques courses in elementary education.
5. Recommendation from the Head of the School of Education.
6. A medical statement indicating the student is free from tuberculosis based on an examination within the last year.
7. Submission of completed application forms by the date set by the Student Teaching Office during the semester preceding the one in which the student teaching is done.
Student teachers will have completed methods courses prior to student teaching. Students will enroll in Education 398 (Student Teaching) in the second semester of the junior year or the first or second semester of the senior year. Fifteen credits of Education 398 are required for elementary education. The assignment of student teaching usually requires work at two grade levels, e.g. $1 / 2$ semester in grade 4 and $1 / 2$ semester in grade 5. Students in the kindergartenelementary program must teach at the kindergarten level for part of the assignment. The typical student teaching program is for a complete semester on a full day basis. Students are invited to apply for the intern program described later in this section.

## Student Teaching-Learning Disabilities

Student teaching in Learning Disabilities will be in addition to the regular elementary or secondary student teaching and will be a minimum of eight credits. One-half day for a full semester will be the typical pattern; however, full days for eight weeks will be permitted.

## Student Teaching-Learning Resources

The student teaching in Learning Resources may be a part of the regular elementary education semester of student teaching or it may be in addition to it. This student teaching will be for two to five credits.

## Student Teaching-Secondary Education

The student should apply at the office of Student Teaching for admission to student teaching.

Requirements for admission to student teaching at the secondary level are:

1. Completion of application forms for student teaching.
2. Admission to the Professional Education Program.
3. A cumulative grade point ratio of 2.50 or better for student teaching and of 2.75 for internship.
4. A grade point ratio of 2.50 in the major and minor fields, and of 2.75 in the major and minor fields of internship.
5. Recommendation from the chair of the student's major and minor department.
6. Completion of the techniques courses in the area(s) to be taught. A medical statement indicating the student is free from tuberculosis based on an examination within the last year.
7. Submission of completed application forms by the date set by the Student Teaching Office during the semester preceding the one in which student teaching will be done.

## Student Teaching Plans

## Plan A. Full Semester Student Teaching

1. The student will spend the full semester student teaching in an approved cooperating school on a full time basis. This usually means that the student will live in the community and attend faculty meetings, extra curricular activities, etc. The student could be assigned two eight-week experiences in different subjects or the full semester in one subject.
2. The student must have completed at least threefourths of the work toward the major and all of the minor, if the student wishes to student teach in it prior to the student teaching experience.
3. The student will register for $10-16$ credits of EduCation 398-Student Teaching.
4. It is the student teachers' responsibility to arrange for their own housing and meals.
5. The student teacher may be required to return to campus for a seminar or to confer with University instructors and supervisors in order to gain further insight into the actual problems of teaching.

## Plan B. Special Plan for Art Education Majors and Minors

1. The student teaching experience for art education majors will be 18 weeks in length, with nine weeks at the elementary level and nine weeks at the secondary level for full state certification K-12, for 14 credits. Either level can be done first, but starting at the elementary level is preferable.
2. A maximum of three additional credits of special work may be taken concurrently by the student while teaching, provided that these three people concur that the student teaching experience will not suffer: the University coordinator, the University professor in charge of the course, and the cooperating teacher.
3. All Education courses should be taken prior to student teaching.
4. The student must have completed at least threefourths of the work toward the major and all of the minor, if he wishes to teach in it, prior to the student teaching experience.
5. Minors will teach full time for nine weeks at the level in which they are seeking certification, and receive seven credits.
6. The junior high level will count toward secondary certification.

## Plan C. Special Plan for Communicative Disorders

In Communicative Disorders practicum in the schools is available through the clinical semester (10-15 credits) in the graduate program.

## Plan D. Internship Elementary and Secondary

1. A student who is planning to teach at either the elementary or secondary level may enroll as a "teaching intern."
2. The required courses in professional education must be completed before the student begins the teacher internship. In secondary education, he must also have completed at least three-fourths of the work toward the major, and all of the minor if he wishes to teach it.
3. The intern is a paid member of a public school staff who spends an entire semester in a school system. During this time he is involved in experiences covering the entire range and variety of a teacher's duties, both in and out of the classroom.
4. The number of internships available depends on requests from school systems.
5. Other considerations:
a. Students entering the internship program should have a cumulative grade point ratio of 2.75 or better, and a grade point ratio of 2.50 or better in the major and in the minor, if they wish to teach in the minor.
b. No on-campus work may be carried during the semester.
c. A summer conference may be required.
d. The student must apply for a special internteaching license which costs $\$ 30,00$.
e. The student may be assigned to either the fall or spring semester.
f. The intern must report for the orientation program that is organized by the cooperating school system.
g. Students considering the internship plan should contact the Student Teaching Office as soon as possible. Internship assignments for the full school year are usually made during February for the following year, and it is therefore necessary for the student to have the application completed by that time.

## The Associate Degree

Patrick D. McDonough, Vice Chancellor for Academic Affairs
Room 202, Main Builḋing
Phone: (715) 346-4686

## General Requirements for the Associate Degree

I. English-six credits: English 101 and 102; or exemption as defined by departmental policy.
II. Communication-two credits: Communication 101 or an equivalent performance course in oral communication.
III. One of the following:
A. Foreign Language--eight credits.

The equivalent of one year of college work in one language must be completed before credit will count toward this requirement.
Students will be placed in foreign language courses on the basis of their high school records, or a placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by two acceptable units of high school work completed in one language. Normally, an acceptable unit is one year's work with a grade of $C$ or better.
B. Mathematics-four credits.

Students will be placed in mathematics courses on the basis of their high school records and the mathematics placement examination, and will not receive credit for courses taken at a lower level than that in which they are placed.
This requirement may be satisfied by acceptable work in three units of high school mathematics, excluding general mathematics. Acceptable work is an average grade of $C$ or better in the aggregate of three units.
IV. History, Humanities, and Social Science-12 credits, selected so as to include courses from at least two of the following groups, with a maximum of six credits in any one group:
A. History. All history courses may be applied toward this requirement. The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.

B. Humanities-courses from the following:

1. All courses in American Studies.
2. Any literature course, whether in English or another language (except English 274 and 275). The courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met. All courses in Colloquium and all courses in Comparative Literature meet this requirement.
3. Foreign Language culture or civilization.
4. All courses in Philosophy.
5. Any course in the literature, history, philosophy, appreciation, or logic of Art, Communication, Dance, Drama, Music.
6. For students not majoring or minoring in Art, specialized courses in the performance of Art.
7. All courses in Religious Studies.
8. Peace Studies 230, 240, 250.
9. Latin American Studies 100.
10. Honors 100, 150, 200, 300.
11. Women's Studies 300 (Humanities Emphasis).
For a listing of specific courses which meet the Humanities requirement, see the current timetable. Courses numbered 300 and above are open only to students who have accumulated 56 credits toward a degree.
C. Social Science-courses from the following:
12. Economics.
13. Human geography (courses numbered 110-226.)
14. Natural Resources 170.
15. Political Science.
16. Psychology.
17. Sociology and Anthropology.
18. Peace Studies 101.
19. Women's Studies 105.
V. Natural Science. Select either A. or B.:
A. Five or six credits from the following courses:
20. Astronomy $105,106$.
21. Biology $101,130,160$.
22. Chemistry $101,105,106,114,115,116$. (See note under Chemistry.)
23. Geography $101,102,103$.
24. Geology 101, 104, 105.
25. Physics 101, 103, 104, 150, 250.

In any one subject either the course numbered 101 or course(s) numbered above 101 will be counted toward this requirement, but not both.
Courses need not be taken in sequence, nor need a sequence be completed, except that stated prerequisites must be met.
B. Two courses selected from the following: Astronomy 100, Biology 100, Chemistry 100, Geography 100, Geology 100, Physics 100.
These courses are designed to increase the student's knowledge, understanding, and appreciation of the science, and its significance in man's attempt to prosper in his environment.
Substitution for the courses listed in this requirement may be accepted with the consent of the Vice Chancellor for Academic Affairs.
VI. Physical Education-two credits.

Students will register in one section of Physical
Education 101 in each of their two academic
years; they may not repeat the same activity at the same level. Certain courses in Dance may be applied toward this requirement. (See the listing under Dance, in the section COURSES OF INSTRUCTION.)
A student who has a medically identified basis for special physical activity programs should contact the School of Health, Physical Education, Recreation, and Athletics during registration.
VII. Additional approved work to total 62 credits.

A minimum of 30 credits, including the last 15 , must be earned at the University of WisconsinStevens Point.
A cumulative grade point ratio of 2.00 is required for granting of the Associate Degree.
A candidate for the degree shall fill out an application for the Associate Degree at the Registration and Records Office. Ordinarily such application shall be made not later than the beginning of the semester or summer session in which the student expects to complete the work.
A student who does not apply for the degree when first eligible may make application up to two years after the required work is completed.
Work taken since June, 1970, may be credited toward the degree.
Eligibility for the degree will be checked by the Registrar's Office and degrees will be approved by the Vice Chancellor for Academic Affairs and by the Chancellor.


## The Graduate School

David J. Staszak, Dean of Graduate Studies and Coordinator of Research

Room 118, Main Building
Phone: (715) 346-2631
Graduate work was implemented at the University of Wisconsin-Stevens Point in the summer of 1960. It began as a cooperative program with the nine then State Colleges and the University of Wisconsin, becoming a full-time academic year program in the fall of 1966 .
General requirements for graduate degrees are established by the Graduate Faculty through the Graduate Council and Faculty Senate. Specific requirements for degrees are established by each department which offers a graduate degree.
The graduate program has been granted full accreditation by the North Central Association of Colleges and Secondary Schools.

Graduate School Policies. Graduate School policies have been designed and have evolved with the following goals intended: (1) to facilitate orderly progress of graduate students; (2) to meet expectations of accrediting agencies, other graduate schools and the Board of Regents; (3) to provide a common University standard and to encourage the development of quality programs.
Each graduate student has the responsibility of becoming aware of the Graduate School policies as they affect the individual although every effort will be made by Graduate School personnel, coordinators, and advisers to aid the student.
The Graduate Council is a standing committee of the Faculty Senate. It is composed of the Chair of the Graduate Faculty, the Dean of the Graduate Studies, one representative from each department or school with an existing graduate program, two representatives from the College of Letters and Science, one representative each from the College of Professional Studies, College of Natural Resources, and College of Fine Arts, one representative from the Learning Resources Center, and two graduate students. As the representative body of the Graduate Faculty, the Graduate Council has the authority to recommend and to determine, subject to review by the Faculty Senate, policies pertaining to the graduate programs of the University.
The Graduate Faculty members are identified in another section of this catalog. They possess an earned terminal degree or its equivalent, academic rank of Assistant Professor or higher, and either successful teaching experience in their discipline or continuing

evidence of scholarly achievement and professional activity. Graduate faculty status allows individuals to regularly teach graduate courses, direct graduate students' studies, serve on graduate students' committees, and be actively involved in graduate affairs.

Graduate Assistantships. The Board of Regents for the University of Wisconsin System provides resources for a number of graduate assistantships. In addition, several college units have extramural funds to employ graduate assistants. Full-time positions require 18 hours of work per week for the full semester. Non-resident graduate students who are hired for full time assistantships are eligible for out-of-state fee remissions.

To qualify academically for a graduate assistantship, a student must (1) be admitted to a graduate degree program at UW-SP, (2) be in good standing in the degree program, (3) be enrolled for at least three (research assistant) or four (graduate assistant) graduate credits each semester. Graduate assistants are limited to a maximum course load of 12 credits per semester.

Assistantships are awarded on a competitive basis through departments to persons admitted to the Graduate School. Departments normally screen applications in the spring for fall appointment. An application for an assistantship may be obtained by contacting the department chair's office or the Graduate School Office.

## Admission and Registration

Admission to the Graduate School is granted by the Dean of Graduate Studies. Following the acceptance by the Graduate Dean, admission to a specific graduate program is granted by one of the following officials:

1. For the Master of Arts-Communication: Chair, Department of Communication.
2. For the Master of Arts in Teaching and the Master of Science in Teaching: Chair of the Department in Area of Specialization (Biology, Communication, English, History, Elementary Education).
3. For the Master of Education-Professional Development: Associate Dean of COPS and Head, School of Education.
4. For the Master of Music Education: Chair, Department of Music.
5. For the Master of Science-Communicative Disorders: Associate Dean of COPS and Head, School of Communicative Disorders.
6. For the Master of Science-Home Economics Education and - Nutrition and Food Science: Associate Dean of COPS and Head, School of Home Economics.
7. For the Master of Science-Natural Resources: Dean of the College of Natural Resources.
8. For the Master of Science in Special EducationEarly Childhood: Exceptional Educational Needs (with UW-Oshkosh): Coordinator.
New students are advised to file applications and begin planning their programs as far in advance as possible, but at least three months prior to the term for which they are registering. The Department Chairs, or coordinators assigned by them, will assist the students in planning their programs.
Students will follow registration procedures as developed by the Registrar and published in the timetable. Registration procedures for off-campus classes are outlined in instructions published by the Director of Continuing Education and Outreach.
The University reserves the right to limit class size, or to cancel classes when the number of registrations is too small to warrant offering the course.
The maximum study load for a graduate student is 15 semester hours in each semester during the academic year. A maximum of nine credits may be attempted during the summer, with a maximum of 6 semester hours taken in any four week period.

## Admission Status-Graduate School/ Graduate Program

Successful admission to the Graduate School does not guarantee admission to a specific degree program. Many of the graduate degree programs employ additional application criteria such as letters of reference, personal interviews, standardized test scores, verification of certification, etc. The application to the Graduate School at UW-Stevens Point, if approved, will be sent to the graduate coordinator of the graduate program area designated. The graduate program coordinator will then determine the applicants' acceptability into that program.

## Admission Categories

## A. Graduate Regular

This status is granted by the Dean of Graduate Studies to a student who has completed all of the following requirements for admission to the Graduate School:

1. Certification of a baccalaureate degree from an accredited institution. Official transcripts must be provided for undergraduate work taken at other institutions. Such transcripts must be mailed directly to the Graduate School by the institution at which the work was done. Graduates at UW-SP need not furnish transcripts of the work done here; but transcripts of post-graduate and graduate work taken elsewhere are required even though the work may not be applicable toward the next degree.
2. A check for $\$ 20.00$ payable to UW-Stevens Point for the application fee as required by the Wisconsin Legislature (Wisconsin Statutes, Section 36.11 (3)(d)).
3. A completed application to the Graduate School requesting Graduate Regular status.

## B. Graduate Special

Persons who hold the bachelor's degree from an accredited college or university or who hold an advanced degree but do not wish to be admitted to a graduate degree program are given this status by the Graduate Dean. This category allows the student to enroll in graduate level courses. and receive graduate credit for teacher's certification requirements or personal enrichment. No limitation is placed upon the number of courses or credits a student may take while in this category. If Graduate Special students later wish to be admitted to a degree program, they must complete all of the formal requirements for admission required of those seeking admission to that graduate degree program. This includes payment of the $\$ 20$ non-refundable initial application fee. The acceptance of any graduate work taken prior to admission to a degree program, including coursework as a Graduate Special student, toward fulfilling requirements of a specific degree program is at the discretion of the major or emphasis department offering the degree program. Furthermore, a maximum of nine graduate credits taken as a Graduate Special student at UW-Stevens Point prior to the term the student is admitted to a degree program can be used to satisfy requirements for the degree program.
C. Graduate Guest ${ }^{\text { }}$

Students who wish to apply credits taken at UWSP toward a graduate degree at another institu-
tion should apply for Graduate Guest status at UW-SP. Guests are not evaluated nor admitted to UW-SP, but are permitted to enroll in specific courses which have the prior approval of their major adviser. Students who have been admitted to UW-SP degree programs and wish to take courses at another institution for transfer to UWSP are encouraged to apply for guest status at the transferring institution. This procedure is the accepted means of obtaining prior, formal approval for degree credit and insures against misunderstanding and misinterpretation of transfer policies.
Active/Inactive Status. Students apply for and are admitted to begin graduate work in a specific term. Usually the admission will be considered valid for the succeeding semester and summer session. The time period in which admission is valid will vary from one program to another. Students who are unable to begin work in the term of admission but who wish to begin at a later time must contact the Graduate Office to determine what must be done to change the original entrance term date.

Students who do not earn any graduate credit for a period of five consecutive terms (a term is a semester or summer session) will be considered Inactive and will be required to be readmitted before enrolling. Inactive students who reapply must meet admission standards in effect at the time of readmission and will be expected to meet degree requirements that are in effect at that time.
Enrollment Restrictions: Graduate School. Some students may be required to obtain permission from the Graduate Office to register. Among those students are: students who have been dropped for academic reasons, students who have not satisfied conditions specified at the time of the original enrollment, students on academic probation, and students who have specific restrictions associated with a readmission status.
Admission to Graduate School is a prerequisite for registration for graduate credit for any course number 500 through 799. This is true whether the course is offered on-campus or off-campus, whether the course is part of the regular curriculum or offered through Continuing Education.
Departmental Enrollment Restrictions. In addition to enrollment restrictions of the Graduate School there are departmental enrollment restrictions. It is generally assumed that students who have been admitted to a degree program will secure the approval of their adviser before enrolling. Students who have not been admitted to a degree program should seek permission of the instructor and/or program coordinator before attempting to register. Departments may have some courses which are not available to graduate
students who have not been admitted to the department's graduate program.
Load Status and Limitations. Graduate students who register for nine or more credits in a semester or five or more credits in a summer session are considered to be full time students. Students who have completed all degree requirements, except for a thesis, may be considered as full-time students for one semester beyond completion of the other degree requirements.
Full time graduate students other than Graduate Assistants may, with the permission of their adviser, schedule up to 15 credits during a semester.
Special students and graduate and research assistants and students with incompletes outstanding should not expect to be permitted to carry maximum loads. Extraordinary students may exceed the maximums cited above by securing written approval of their adviser and the Graduate Dean.
Transfer of Credit. Students who have made satisfactory records in graduate courses at other graduate schools may be granted credit for those courses within the following limits:
(a) Nine credits may be accepted from other institutions(extension credit included in this total must not exceed six credits).
(b) Credits in courses in which the grade earned was less than B will not be accepted.
(c) Credits in correspondence courses will not be accepted.
In all cases the credits submitted for transfer must be earned at an accredited institution and be acceptable as graduate credit at that institution. Furthermore, the credit must be applicable to the student's proposed program. Credits submitted for transfer must be approved by the student's graduate committee and by the Dean of Graduate Studies.
Fees. The fee schedule is determined by the Board of Regents of the University of Wisconsin System. The fee schedule for a given term is published with the timetable for that term. The schedule distinguishes between resident and non-resident fees as well as between graduate and undergraduate fees. Fees are determined by student classification rather than by course classification. Graduate regular students who enroll in one or more undergraduate courses will be assessed the graduate level fee.
Split-Program Status. The opportunity to take one or more courses for graduate credit during the last enrollment period before the granting of a bachelor's degree is a special privilege offered to second-semester seniors who otherwise qualify for admission to the Graduate School. This allows students to make efficient use of the University if they have less than a
full semester of work remaining toward their bachelor's degree.
Seniors who will graduate at the end of the semester for which they apply for split-program status must work with both their undergraduate adviser and the graduate program coordinator in planning the final semester's work. This is to insure that all requirements for the bachelor's degree will be met. The student will need to complete an application for admission to the Graduate School, pay the $\$ 20$ application fee, and submit the signed Split-Program Statement available in the Graduate Office.

Undergraduate fees are assessed for all credits taken during this split-program period.

## Academic Standards

All students are expected to maintain at least a B average (3.00 GPR) to remain in the graduate program. Students admitted in full status who fail to maintain at least a B average will be placed on probation. Failure to raise the overall average to B or better during the next nine credits will drop the student from the program.
Any graduate student may appeal a decision regarding admission or retention in a program by submitting a letter to the Graduate Council through the Dean of Graduate Studies requesting reconsideration.
A grade of incomplete must be removed before the end of the next semester or summer session in which the student is registered; if not, it automatically becomes a failure (thesis courses excepted).
For the purpose of raising the grade point ratio, a student may not take more than six credits beyond the 30 credit minimum requirement for the degree.

See also the statement of Satisfactory Academic Progress in the earlier section of this catalog on Academic Work.

## General Requirements for All Master's Degrees

1. A minimum of 30 credits in graduate courses is required.
2. A minimum of one-half of the total number of credits must be taken in courses open to graduate students only (courses numbered 700 or over). (Exception: no minimum is required for the MS in Natural Resources.) In addition, for the MAT and MST, one-half of the credits in the area of specialization must be taken in courses open to graduate students only (courses numbered 700 or over).
3. At least a B average must be achieved in all work taken to satisfy the degree requirements. $A$
grade of C will be accepted in no more than eight of the 30 credits (nine of the 44, for the MAT).
4. Departments, schools, or colleges offering graduate degrees shall determine the additional requirements that must be met before graduation; these will include at least one culminating experience.
5. All credit accepted toward a degree, including transfer credit, must have been earned within a seven-year period. No extensions will be granted except for unusual health conditions, fulfillment of military obligations, or such other extenuating circumstances as the Graduate Council may recognize. The time period begins with the beginning of the term in which the first degree-course was taken. The time period ends with the date the final requirement is completed.
6. Not more than a total of six credits earned in special topics courses and independent study courses may apply to a Master's degree.

## Admission to Candidacy for the Master's Degree

Admission to the Graduate School and a specific degree program does not automatically make a student a candidate for the Master's degree. To be eligible for candidacy in the Master's degree program, the following additional provisions must be met:

1. Not less than nine credits of graduate work must have been earned in residence at UW-SP.
2. Deficiencies, if any, must have been removed, and all subject matter prerequisites in the area of specialization must have been completed.
3. The student must have a B average in all graduate work.
4. Procedures for admission to candidacy for the program will vary among the several programs. Inquiries should be directed to the Dean of Graduate Studies.

## General Provisions

Culminating Experience. Each student must successfully complete a culminating experience. The nature of this experience is determined by individual colleges or departments subject to approval by the Graduate Council. Examples of experiences which may meet this requirement include: thesis, seminar paper, oral and/or written comprehensive examination, clinical paper, integrative course, exhibition, recital. Most programs will require more than one of the above experiences.

Thesis Policy and Procedure. For some degree plans a thesis is required. After selecting a topic in consultation with some member of the graduate faculty designated to advise thesis and seminar papers, the student submits a proposal to the adviser, briefly
describing what is proposed and how it will be accomplished. The adviser and student select at least two other members of the graduate faculty to serve as a thesis committee. Any member of the graduate faculty may serve on the committee. The Dean of Graduate Studies serves as the ex-officio member of all thesis committees. The thesis adviser shall be the chair of the committee. The thesis committee reviews the proposal, assigns the number of credits to be earned for the thesis (up to six credits), and indicates its approval or rejection. The approved form is then forwarded to the Graduate Dean.
A thesis is formal written work and should follow the standards as established in the style manuals preferred by the department (the student should consult the academic adviser for the proper format).
The degree candidate will defend the thesis in an open, public oral examination at least 30 days prior to the expected date of graduation. The members of the thesis committee will conduct the examination.
A copy of the thesis must be filed in the library at least 10 days prior to graduation.
Student Records Policy. In accordance with the Family Rights \& Privacy Act of 1974, students have the right to inspect their files in the Graduate School Office, Room 118, Main Building.,

Reference letters submitted as part of a degree program application may also be inspected providing that all of the following conditions have been met:

1. Student has been admitted to the degree program for which the letters were submitted.
2. Student has attended graduate level courses within this program.
3. Reference letters were submitted after January 1, 1975.
4. The file does not contain a written waiver of the right to see reference letters.
Students should also be aware of several additional provisions of this legislation:
5. The Graduate School is not permitted to make copies of other schools' transcripts for release to the student for any office other than the student's academic department. Students must request copies of their transcripts directly from the schools where the credits were earned.
6. Reference letters submitted to complete an application for degree program admission may be used for no other purpose.

## Degree Conferral Policy; Deadlines for Graduation

At the beginning of the term in which the student expects to receive a Master's degree but not later than the end of the first week of a summer session or the
third week of a semester, the student must submit an application for graduation to the Graduate Office. (Note: If a student submits an application for graduation and does not complete degree requirements a new application must be completed.) Application forms are available in the Graduate Office.
A final graduation check is made by the Graduate Office 30 days prior to the degree conferral date. All degree requirements except for those courses the student is currently enrolled in must be completed by this deadline. Students whose records are incomplete (e.g. courses still incomplete, official transcripts for transfer courses not on file, thesis or other culminating experience not approved) at this time will be considered for the next commencement after they reapply.
The student must have earned the number of prescribed credits and grade points for a specific degree, have completed all other requirements of that curriculum, and be recommended by the graduate faculty of the department for the degree.
No degree will be granted unless the candidate received the approval of the Graduate Faculty during such semester or summer session.

The Graduate School will provide a statement, upon request, certifying that degree requirements have been completed and noting the date when the degree will be conferred.

## Biology

Virgil A. Thiesfeld, Graduate Coordinator Room 110, College of Natural Resources Building Phone: (715) 346-2159

The Biology department offers Master of Arts in Teaching (MAT) and Master of Science in Teaching (MST) degrees. These programs are for teachers and include some course work in Education. Students interested in a Master of Science degree (MS) should examine the MS in Natural Resources. Several biologists have joint appointments in the College of Natural Resources and serve as major advisers in that degree.
Specialization within a degree is an agreement reached between the student and the graduate committee. If a student is admitted without deficiencies, there is great flexibility in designing the specific program.
In the MST, the credits taken in the liberal arts category (outside the area of biology) may include courses in areas such as chemistry, geology, and physics.

The MAT and MST programs provide secondary school teachers with the opportunity for advanced
study, experimentation, research, and involvement in various professional activities.

## Admission Requirements

A three member admissions committee reviews each application to determine if the equivalent of UW-SP's undergraduate major with collateral requirements in chemistry and mathematics have been completed. The missing required courses are listed as deficiencies and are normally completed at the undergraduate level. The overall grade point ratio in the major, including collateral courses should be 3.00 or higher. If it is below this level, the GPR for the last two years is reviewed. If the overall GPR is below 3.00, it is generally suggested that the student enroll as a Graduate Special student to provide evidence of ability to perform graduate level work. A student is not accepted into a thesis plan until a faculty member has agreed to serve as the thesis adviser.

## Culminating Experience Requirements

Non-Thesis Option: The student is required to complete a research paper. This paper grows out of the Seminar: Problems in Teaching. The final compre ${ }^{*}$ hensive examination is primarily based on the courses taken in the degree program. It may also include questions on concepts and problem solving which are expected of all master's degree candidates in biology. The final examination is conducted by the student's graduate committee (major adviser plus at least two other biologists) and may be either written or oral.

Thesis Option: The thesis committee (major adviser plus at least two other biologists) reviews the thesis research proposal and evaluates the final product. The final examination is oral and is based primarily on the thesis. It may also include questions on course work taken; and on concepts which master's degree students are expected to understand.

## Communication

William C. Davidson, Graduate Coordinator Room 208, Communication Arts Building Phone: (715) 346-2237
The Communication department offers the Master of Arts (MA) in Communication degree, providing a broad and integrated approach to the study of human communication, as well as an opportunity to specialize in an area of professional interest. Working with an advisory committee, each student defines a plan of study best suited to the student's career aspirations.

## Admission Requirements

Students admitted to the Graduate School are eligible for admission to the graduate program in Com-
munication on a probationary basis. During the semester in which the first six credits are to be completed, and prior to the first class day of the following semester, the status of the student's candidacy is reviewed.

## Admission to Candidacy Requirements

The student formulates a provisional plan of study and provides supporting materials based on the first six credits of work. These materials (papers, exams, recommendations, etc.) are reviewed by the Graduate Program Committee to determine the student's continuing status: (a) "MA Candidate" - clearance is granted to acquire an Advisory Committee and obtain approval of a program of study; (b) "Conditional" status is subject to re-evaluation upon completion of the recommendations of the Graduate Program Committee; (C) "Special" - student is eligible to take courses, but is discontinued in the degree program. An appeal from special status may be made to the Graduate Program Committee through the Graduate Coordinator.

## Program Planning and Execution

With the assistance of the Graduate Coordinator and the Graduate Program Committee, the student selects an adviser and two additional members of the Advisory Committee, which approves the student's plan of study. After the completion of 12 credits, the Advisory Committee approves the selection of thesis topic, rationale, and dominant method.
By the time the student has completed 21 credits, a thesis proposal should be submitted to the Advisory Committee. The student or the adviser may request that the Advisory Committee be reconstituted for thesis direction.

Once the thesis proposal is approved, the student must be enrolled in one or more hours of thesis for each semester in order to maintain candidacy status. No more than six credits of thesis may be counted toward the 30 credit degree requirement. The thesis must be completed within four semesters. Any exception to these provisions must be approved by the Graduate Program Committee after recommendation of the Graduate Coordinator.

## Culminating Experience Requirements

An oral defense of the thesis is required and is held no later than eleven days prior to commencement. A copy of the thesis must be delivered to each member of the committee and to the department office at least two weeks before the scheduled orals. Two bound copies are to be submitted to the Coordinator no later than ten days prior to commencement.
Note: Although a minimum of 30 graduate credits is required, most students finish with more than 30
credits. Typically, a full-time student can complete the program in three semesters and one summer session, but many plan a two to five year part-time program.

## Communicative Disorders

## Donald L. Aylesworth, Graduate Coordinator

Room 034, College of Professional Studies Building Phone: (715) 346-2567

The School of Communicative Disorders offers a Master of Science (MS) degree with two specialization options available - one in the area of speech-language pathology, and the other in audiology. Each of the specialization areas offers the academic background and clinical practicum needed to function competently and independently in a variety of professional employment settings.

The School of Communicative Disorders at UW-Stevens Point was among the first training programs in the country to be awarded accreditation by the Education and Training Board of the American Speech-Language-Hearing Association. The program's overriding strength rests with its emphasis on clinical training which begins at the undergraduate level, and culminates in a clinical semester at the end of the student's graduate program. In consultation with the student's adviser and the Director of Clinical Services, a site (school, clinic, hospital, etc.) is selected for a ten to 15 week concentrated supervised practicum. Sites in audiology and speech and language are available throughout the country. The program provides a quality education which emphasizes training in the prevention, evaluation, and treatment of disorders of hearing, speech, and language. Graduates are located from coast to coast (and in foreign countries) in schools, universities, hospitals, clinics, and private clinics.

## Admission Requirements

Each of the two specialization options requires the previous completion of specific course content and practicum experiences at the undergraduate level. In those few instances where deficiencies exist, they must be eliminated at the first opportunity while the student is enrolled in the graduate program. Determination of deficiencies rests with the School of Communicative Disorder's Coordinator of Academic Programs. For a detailed listing of the specific course content areas and practicum experiences required at the undergraduate level, the interested student should contact the School of Communicative Disorders and request a copy of the Graduate Handbook: Speech-Language Pathology and Audiology.

## Admission to Candidacy Requirements

The area of audiology requires the successful completion of a written examination which is taken after the completion of 20 credits of graduate work. The area of speech-language pathology requires the completion of at least nine credits of graduate work, and a GPR of 3.00 with not more than one grade of $B-$.

## Specific Degree Requirements

Each of the two areas of specialization requires the student to meet the minimum standards for clinical certification as established by the American Speech-Language-Hearing Association which are in effect at the time of graduation. Each area also requires the completion of a clinical semester (minimum of 10 credits) which, for the students in audiology, includes a special project.
The student in audiology is also required to complete qualifying comprehensive examinations. After successful completion of a minimum of 20 credits, the graduate audiology student will be eligible to take a written, qualifying examination. Then, at the successful completion of all academic course work and practicum, but before an extended externship assignment, the graduate audiology student will take an oral comprehensive examination. This examination will be designed to determine whether the student has synthesized the academic work taken. The oral comprehensive committee will consist of two members of the audiology staff and one other member of the School of Communicative Disorders or a University Associate.

## Culminating Experience Requirements

Each of the two specialization areas requires a clinical semester upon completion of the appropriate course work and clinical practicum. The clinical semester is a full-time assignment for one academic term to a hospital, clinic, school, etc., for the purpose of gaining professional experience in a type of facility that most interests the student. The graduate student in audiology is also expected to complete a project in an area of the student's interest during the clinical semester.

## Education

Russell L. Oliver, Graduate Coordinator Room 440, College of Professional Studies Building Phone: (715) 346-2040
The School of Education offers several graduate programs:

1. Master of Science in Education (MSE) in (a) Elementary Education; (b) Elementary Education with Reading Specialization; and (c) Elementary Education with Special Learning Disabilities specialization.
2. Master of Education - Professional Development (MEPD).
Two master's degree programs are offered in cooperation with the University of Wisconsin-Oshkosh. Courses which apply to them may be taken on the Stevens Point campus; the degrees are granted by Oshkosh. (See statements 3. and 4., below.)
3. Master of Science in Education - Early Childhood: Exceptional Education Needs (MSE-EC:EEN).
4. Master of Science - Education/Guidance.

## Admission Requirements

Admission to the Graduate School is a prerequisite for all graduate programs. Students applying for admittance to the Master of Science in Education degree must have a license to teach.

## Admission to Candidacy Requirements

After earning nine credits toward the degree, the studentoritusplapply for candidacy in the master's degree prógrane. The following provisions must be met: (1) Not less than nine credits of graduate work must have been earned in residence at UW-SP; (2) Any deficiencies must have been removed and all subject maffer in the areas of specialization must have been complêted; (3) The student must have a B average in alf'graduate work.

## Specific Degree Requirements

## 1. Master of Science in Education

A minimum of 30 credits in graduate courses are distributed as follows: (a) Professional Education - six to nine credits; (b) Liberal Arts - six to nine credits from outside the area of specialization. (c) Area of specialization - remaining credits selected as follows:
1.a. Elementary Education - nine credits: at least three credits from Education 731, 732, 733, 734, 741; the remainder from the preceding group plus 706, 751, 756, 758.
1.b. Elementary Education with Reading specialization - 12 credits must be earned in Education 741, 746, 747, 748; this provides " 316 " certification (Reading Teacher); and three to six credits of additional electives in Education courses; OR
Education 749 and 750, providing " 317 " certification (Reading Specialist).
This certification for grades K -12 is available within a variety of degree or non-degree program options.
1.c. Elementary Education with Special Learning Disabilities specialization - Education 551, 553, 563, ${ }_{15} 564,780$, eight credits of 781; Liberal Arts courses are Psychology 560 and Communicative Disorders 566 or 736 .

For "811" certification for learning disabilities (K-8) a baccalaureate degree in elementary education (K-8), including Education 326 is required.
OR The student must possess a baccalaureate degree in Special Education, including Education 304, 308, 326, 383, and eight credits of 398; Mathematics 229; Mathematics Education 229; Psychology 260.
Then the following courses will complete the "811" certification: Communicative Disorders 736; Education 533, 551, 563, 564, 780, and eight credits of 781; Psychology 560.

## Culminating Experience Requirements

Students pursuing the MSE degree will complete either of the plans below as culminating options:
A. They will do a thesis and write a comprehensive exam question to cover the liberal arts area of their program. OR B. They will do a seminar paper (via registration in either Education 711 or 712, three credits) and will write a comprehensive examination. The exam will include a question to cover foundations, which must be passed; a question from liberal arts, which must be passed; and three questions from their area (i.e., education, reading, learning disabilities). The candidates will be required to write on and pass two of the three in the area and must pass all four written responses in order to satisfactorily complete the exam requirement. Further information may be obtained from the School of Education Office.

## 2. Master of Education - Professional Development

The MEPD degree is designed for licensed teachers with at least two years of teaching experience. It allows the candidate to participate with advisers in the design of a plan of study which meets the candidate's specific needs. The program requires a minimum of 30 credits of graduate work including a choice of four final options. It is possible to include credits from several disciplines provided the candidate can verify a professional need for them.

## Admission Requirements

Admission to the program requires a teaching license and verification of two years teaching experience in addition to the general requirements which apply to all graduate degrees.

## Admission to Candidacy Requirements

Applicants are admitted to candidacy upon the completion of nine credits with an appropriate grade point ratio and the approval of a proposed degree plan by advisers.

## Culminating Experience Requirements

The culminating experience consists of completing one of the following four options: (a) Thesis - three to six credits; (b) Educational Product - zero to three credits; a demonstration of professional expertise in the form of a usable product; (c) A portfolio of papers, publications, presentations, etc., and the completion of 36 credits; (d) A comprehensive examination on a 12 credit area of specialization which has been included as a part of the 30 credit degree program.

## 3. Master of Science in Education - Early Childhood: Exceptional Needs

(Darvin Miller, Graduate Coordinator)
The MSE-EC:EEN program prepares teachers to work directly with young handicapped children and with persons who have primary responsibility for their care (e.g., parents). It is designed primarily for persons who have completed a baccalaureate degree in early childhood education, special education, or a related field, and who have had successful experience in working with young children. The program, which leads to EC:EEN certification, is a cooperative program with the University of Wisconsin-Oshkosh. A competency-oriented curriculum is shared by the two universities, and courses may be taken on either campus.

## Admission Requirements

Applicants to the MSE-EC:EEN program are selected on the basis of the number of persons that can be accommodated in the program each year and of those holding the highest qualifications on the following: (1) completion of a baccalaureate degree in a related general professional curriculum; (2) grade point ratio; (3) successful experience in working with young children.
Steps for admission to the program are: (1) submission of an Application for Admission to the Graduate School, along with transcripts of credit, and names of references for rating the student's work experience with young children; (2) interview with the Program Coordinator and the structuring of a program plan; (3) determination of acceptance into the program by the Joint MSE-EC:EEN Program Committee.

## Admission to Candidacy Requirements

Students who have been admitted to the program may submit an Application for Admission to Candidacy when they have completed a minimum of 12 credits, and not more than 21 credits following admission to the program.
Two requirements are (1) successful completion of the program's Admission to Candidacy Examination;
(2) submission in final form of an authorized program plan for the degree.

## Specific Degree Requirements

The general professional preparation, in addition to the completion of the following prerequisite courses and experience: (a) Courses: Communicative Disorders 266; Education 301, 308, 351, 381; Physical Education 280; Psychology 260, 360; (b) Experiences: successful work with young children for one academic year; and verified experience with different ages of children with exceptional educational needs.
The minimum of 36 credits in graduate courses is distributed as follows: (1) Foundation courses - six credits: Education 705 or 706; Psychology 660; (2) General Studies: Exceptional Education - six credits: Communicative Disorders 736; Physical Education 775; (3) Area of Specialization - 21 credits: Education 775, 776, 777, 778, 779, 782; Electives - three credits.
This program leads to serving young handicapped children in mandated EC:EEN public school programs (ages 3-6), Head Start programs involving 10\% handicapped populations, achievement centersfosithetn handicapped (ages 0-3), and private norsery sohopod programs serving handicapped children. \%s

## Culminating Experience Requirement

There are two: (1) Demonstration of successful performance in the EC:EEN program competencies jand skills, as observed in Education 779 and 781; (2) successful completion of a written and oral comprehensive examination.

## 4. Master of Science - Education/Guidance

This program, offered in cooperation with the University of Wisconsin-Oshkosh, offers three emphases: (1) Community Counselor emphasis provides preparation for work in agencies, mental health institutes, county institutions, hospitals, industry, Job Service, and private practice; (2) School Counselor emphasis provides preparation for work in elementary, middle, or high school settings. An internship inschool counseling is also available for persons who do not possess the two year teaching experience requirement; (3) Student Development emphasis provides preparation for work in post-secondary educational institutions.

## Program Requirements

Thirty-four credits are required for graduation, at least 17 of which must be taken at UW-O.
Admission to Candidacy is required after completion of a minimum of nine credits in basic courses.
Culminating Experience may be written (thesis, seminar paper, or comprehensive examination), or academic (integrative seminar).

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Oshkosh courses will be offered at Stevens Pointat least once per academic year. Applicants must meet admission criteria of the UW-O Graduate School and
the Counselor Education program. All students will be assigned to a UW-O adivser.

## English

David G. Holborn, Graduate Coordinator Room 486, Collins Classroom Building Phone: (715) 346-4757<br>The English department offers the Master of Arts in Teaching (MAT) degree in English, and the Master of Science in Teaching (MST) degree in English and in Reading Certification - English. These programs provide advanced knowledge and training for those seeking to teach English and Reading.

## Admission Requirements

A Bachelor's degree with an English major is required for full acceptance into the English MAT and MST programs. Applicants with less than an undergraduate English major may be granted provisional acceptante by the chair of the department. MST students with less than a 32 credit undergraduate major in English (exclusive of freshman English) must select the 18 oredit option in English courses.

## Admission to Candidacy Requirements

A student is admitted to candidacy after successfully completing rine graduate credits with at least a B average.

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## Specific Degree Requirements

At least half of the English credits must be at the 700 level.

1. Master of Arts in Teaching - English: (a) English courses ( $18-20$ credits) in specific courses to be approved by the department chair; (b) Education courses ( $9-12$ credits): Education 702, 760, and threentosjx credits from Education 583, 701, 721, 751: (c) Professional sequence ( 14 credits): Education 763, 764, 765.
2. Master of Science in Teaching - English: (a) Liberal Arts courses ( $6-9$ credits); (b) Education courses ( 6 credits): Education 713 and one other; (c) English courses ( 15 to 18 credits) selected with the approval of the chair.
3. Master of Science in Teaching - Reading Certification in English: (a) Reading courses ( 15 credits - six may have been taken at the undergraduafe level): Education 746, 747, 748; other approved courses to total 15 credits; (b) Credits outside of English (6-9 credits): Education 712ө水eminar (See "Culminating Experience requirengènts," below) and approved course(s) to total 6-9 credits; (c) English courses ( 12 to 15 credits) selected with the approval of the chair.

Culminating Experience requirements: Seminar paper in conjunction with Education 712 or thesis (2-6 credits); comprehensive examination.

## History

Russell S. Nelson, Graduate Coordinator Room 406, College of Professional Studies Building Phone: (715) 346-2186

A Master of Science in Teaching (MST) or Master of Arts in Teaching (MAT) degree may be earned in History or in History with a concentration in the Social Sciences. A Master of Education - Professional Development (MEPD) degree may be earned with a History concentration. These degrees enable the student to study specific historical periods or topics, to acquire new information, to learn the latest interpretations, and to evaluate the latest methods for teaching the subject.

## Admission Requirements

The department of History will accept into its program students who (1) are accepted into the Graduate School, (2) have an undergraduate major in History or in Social Sciences, (3) have a 2.75 overall undergraduate GPR, (4) have a 3.00 undergraduate GPR in the major field. Students not meeting all of these criteria may appeal to the department Graduate Committee for acceptance on probation.

The department of History and the Graduate School require that each student complete a Program of Study form in the first semester of the student's graduate program. The form will be completed by the student in consultation with the student's departmental adviser.

## Admission to Candidacy Requirements

After the student has completed $\mathbf{1 2 - 1 5}$ credits of work, formal admission to candidacy will be agreed upon by the candidate and the adviser. The evaluatioin meeting will discuss the student's program, progress, and potential for success in completing the degree program.

## Specific Degree Requirements

Each student will, in consultation with an adviser, plan a program that will best meet the professional needs of the student. The program may include specialization in a field of history agreed upon by the student and adviser.

1. The MST/MAT degrees in History require: (a) a 3.25 GPR in graduate courses; (b) a minimum of 18 credits in History, at least 12 of which must be earned at UW-SP; at least nine must be earned in courses numbered 700 and above, six of these at UW-SP: History 680 (Methods) or 775 (Theories) is re-
quired; History 782 (Am Seminar) or 784 (Eur Seminar) or 786 (non-West Seminar) is required.
The student may not concentrate all work in any one area (American or European or non-Western). At least three credits must be earned in a second area.
2. The MST/MAT degrees in History with a Social Science concentration require a total of 24 credits distributed as follows: (a) twelve credits in History of which at least six must be in courses numbered 700 and above and with a GPR of at least 3.25; (b) twelve credits in one or more of the Social Sciences mutually agreed upon by the student and the history adviser.
3. In the MEPD degree, the twelve-credit area of specialization may be in History. The program of study in the area of specialization will be determined by the student in consultation with the education adviser and the history adviser. Six credits of courses in History 700 and above are required. The student must earn a minimum 3.25 GPR in History courses. Exceptions to these History requirements may be granted by the Gradluate Dean upon the recommendation of the department chair and the department Graduate Committee. (See the statement on the MEPD program in the previoüs section on "Education.")

## Culminating Experience Requirements

Students in the MST or MAT programs have the choice of writing a master's thesis, for a maximum of six credits, or of submitting a research paper done for the Education Seminar.
Thesis students will decide upon a topic in consultation with the adviser and will inform the graduate coordinator. Upon submission of the completed thesis, the student will take an oral examination to be conducted by the thesis adviser and two other members of the department chosen by the adviser in consultation with the student. (Details about the writing and submission of the thesis are available at the department office.)
For the thesis to be accepted and for the examination to be completed successfully, the adviser and at least one other member of the committee must vote approval. Thesis students will also take a written comprehensive examination consisting of a question in Education.
Students not writing a thesis will take written comprehensive examinations in History and Education. They will be expected to display a thorough factual and bibliographical knowledge of at least one area of history. The comprehensive examination is not a repetition of a final examination taken in a course. Students working in History with a concentration in Social Science will be examined on one area of History, one Social Science, and Education.

The Government Publications division of the UW-SP Learning Resources Center has a rich collection of public documents where students can study international and national as well as state and local topics. As an Area Research Center, the LRC collects numerous publications of the United States government and many publications of the State of Wisconsin. The Center also has a growing manuscript collection of both public documents and private papers. These materials enable researchers to study areas of history that include 20th century diplomatic and military, English, 18th and 19th century United States, and American Indian history.

## Home Economics

Mary Jo Czaplewski, Graduate Coordinator Room 101, College of Professional Studies Building Phone: (715) 346-2830
The School of Home Economics offers the Master of Science (MS) degree in Home Economi and in Nutrition and Food Science.
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The Master of Science in Home Economites) Education encompasses the disciplines of apparel,féextiles and merchandising, child development and family rela-; tions; food, nutrition, and institution management, consumer resource management; housing; and inter rior design; home economics education and other related fields. Each student's program is developed in accordance with individual needs and career goals, with an emphasis in home economics education. It enables the student to develop research competence and professional proficiency, and strengthens the background for secondary level teaching, and prepares the student for teaching in post-secondary institutions and for public services.
The Master of Science in Nutrition and Food Science encompasses the discipline of nutrition; food science, and food service administration. Each sti̛dètet's program is developed with emphasis in the stúaent's area of interest. It enables the student to develop research competence and increase professionat,proficiency. Upon completion of the degree and an undergraduate Plan IV curriculum, a student is eligible for a six-month work experience to meet requirements for American Dietetic Association membership

## Admission Requirements

A. Home Economics Education: Students seeking the MS in Home Economics Education need not have a degree in Home Economics nor be certified to teach at the secondary level.
B. Nutrition and Food Science: Students seeking ${ }^{\text {th }}$ 解 MS in Nutrition and Food Science need not haveran undergraduate major in one of the Nutrition and Food Science areas. The number of deficiencies which will
need to be removed will depend on the content of the applicant's undergraduate curriculum

Note: In both programs, any deficiencies must be removed before applying for candidacy. Admission to the program is determined by the Graduate Coordinator in consultation with the Graduate Faculty. An overall undergraduate GPR of less than 2.75 may require a student to be admitted on probation for one full semester. During the probationary period the student will take no more than nine credits and must earn a graduate GPR of at least 3.00 .

## Admission to Candidacy Requirements

After completion of nine credits of graduate work at UW-SP, students may apply for and be admitted to candidacy if they have maintained a 3.00 GPR. Otherwise they will be placed on probation. Probation will be removed if the grades earned for the next nine credits average 3.00 . Failure to maintain a cumulative,GRB of 3000 , will result in dismissal from the program.

## Specific Degree Requirements

1. The Master of Science in Home Economics Education requires 30 credits at the graduate level, with 15 at the 700 level. Plan A requires a resisearch thesis; Plan $\mathbf{B}$ requires an independent study consisting of a written in-depth investigation of a topic.
Plan A - Thesis Option: (1) Required courses - eight to 12 credits: Home Economics 798, 799; and Education 706; (2) eight to ten credits in Home Economics Education; (3) eight to 15 credits in Home Economics and related fields.
Plan B -Non-Thesis Option: (1) Required courses: Home Economics 796, 798; Education 583 or 706; (2) eight to ten credits in Home Economics Educatrons (3) teight to 15 credits in Home Economics and related fields.
In either option, a minimum of eight credits must be selected from one of the first five of the following categories: (1) Apparel, Textiles, and Merchandising; (2)

- Child Development and Family Relationships; (3)

Food, Nutrition, and Institutional Administration; (4) Consumer Education and Management; (5) Housing and Interior-Design; (6) Education; (7) An option developed from inter-related disciplines, with prior approval by the adviser and the Associate Dean of the School of Home Economics.
Workshops, Special Topics, and Independent Study courses are available to strengthen the above areas. No more than a total of six credits earned in such courses may apply to a master's degree.
2. The Master of Science in Nutrition and Food Scl-
ence requires 30 credits at the graduate level,
with 15 at the 700 level. Plan A requires a seminar course and an in-depth seminar paper.

Plan A - Thesis Option: (1) Required courses: eight to 12 credits: Home Economics 749, 789, 799; (2) nine to 12 credits in Food and Nutrition courses*; (3) six to 13 credits in related areas.

Plan B - Non-Thesis Option: (1) Required courses six credits: Home Economics 749, 798; (2) nine to 15 credits in Food and Nutrition courses*; nine to 15 credits in related areas.

- Food and Nutrition courses: Home Economics 543, $547,548,577,644,645,646,649,650,651,655,656$, $657,658,690,701,702,748,753,754,755,794,796$.
No more than six credits earned in Workshops, Special Topics, and Independent Studies courses may apply to a master's degree.
These degrees provide opportunity for graduate teaching and research assistantships, and opportunities for selected in-depth clinical/community practitioner experiences.


## Culminating Experience Requirements

In addition to those stated above, candidates for a master's degree must complete the following requirements not later than thirty days before the graduate date:
In Home Economics Education: a written comprehensive examination any time after the completion of 18 graduate credits, and participation in oral defense of the Thesis or Plan B paper.,
In Nutrition and Food Science: an oral comprehensive examination on completion of the Thesis or Seminar

## Music

Leon R. Smith, Graduate Coordinator
Room C-101, College of Fine Arts Building
Phone: (715) 346-3852
The Music department offers the Master of Music Education (MMEd) degree with Instrumental, Choral, and Suzuki Talent Education emphases. The degree prepares students for a full range of classroom, performance, and administrative responsibilities as members of the music teaching discipline. Its curriculum incorporates philosophy, methodology, literature, and applied musical experience, and presents the most recent trends and innovations in music education.

## Admission Requirements

(1) An undergraduate degree in Music Education; (2) A transcript of undergraduate course work and graduate courses transferred from other schools; (3) Two letters of recommendation from administrators or
teaching colleagues relevant to music teaching, or from college teachers in the major area; (4) Teacher certification; (5) A diagnostic entrance examination in music history, literature, and theory.

## Admission to Candidacy Requirements

(1) Completion of nine credits with a grade of B or better; (2) Sometime before the completion of 15 credits, the adoption of a Program of Study, including projected course work, the topic of a culminating experience, and selection of a graduate committee and an adviser, who is also chair of the committee. (Candidates must meet state requirements for teacher certification.)

## Specific Degree Requirements

A minimum of 30 credits in graduate courses distributed as follows:
(1) Major Applied Music - four credits; (2) Music Theory - six credits. A placement examination is required. Students found not qualified will take Music 711, and one other graduate course in music theory. Qualified students will take Music 712, and one other graduate course in music theory; (3) Music Literature/History - six credits. A placement examination is required. Students found not qualified will be coünseled as to appropriate courses in this area. Qualified students may select any graduate courses in music literature/history; (4) Music Education - six credits from Music Education 786, 787, or 788; (5) Thesis option: (a) Thesis - four credits, and four credits of electives; OR (b) Seminar paper - no credit, with oral examination by a faculty committee, and eight credits of electives.

## Culminating Experience Requirement

Option 1: Thesis, four credits; electives, four credits. Option 2: Seminar paper, no credit; electives, eight credits.
The selection of one of these options is made in cooperation with the graduate coordinator and the student's adviser, based on the student's professional goals and the length and character of the project, and may include a wide variety of activities in research', performance, and methodology.
The MMEd degree program provides a broad range of experiences in music education. Students may conduct and perform in a wide variety of vocal and instrumental ensembles. Seminars and methods courses provide a firm philosophical/technical career base. Students in the Suzuki Talent Education curriculum participate in the renowned Institute which annually brings several thousand students and teachers to the UW-SP campus. Research is enhanced by a regional computer network and an instructional media center. The Center for Studies in Electronic Music

Education provides facilities for combining computers, synthesizers, and the audio visual media with classroom music activities.

## Natural Resources

Aga S. Razvi, Graduate Coordinator Room 223, College of Natural Resources Building Phone: (715) 346-3618
The College of Natural Resources offers the Master of Science (MS) degree in Natural Resources, encompassing the following disciplines: Forestry, For-estry-Recreation, Forestry-Urban, Wildlife, Fisheries (and Limnology), Resource Management, Resource Management-Environmental Education, Resource Management-Land Use Planning, Soil Science, and Water Science.
The graduate program provides an opportunity for advanced study, research, and involvement in Natural Resource related professional activities. All programs are designed to meet the individual needs and interests of the student.
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## Admission Requirements

In addition to Graduate School admission requirements, the College of Natural Resources requiress that a separate application form be completed by prospective students. Two letters of recommendation are also required. The Graduate Record examination is recommended for most disciplines and is required for Fisheries.
Students need not have an undergraduate major in one of the Natural Resource specialities. The number of deficiencies which must be removed will depend on the content of the undergraduate curriculum; a student with a major in social sciences or humanities will have more deficiencies than one in the sciences. Admission to the program is determined by the participating graduate faculty in the student's area of interest. There are no minimum undergraduate grade point ratio requirements for admission. An adviser is assigned to the student on admission.

## Specific Degree Requirements

A minimum of 30 credits in graduate courses is, required for the MS degree, distributed as follows:
(a) No more than 12 credits in any one discipline, except for courses listed under Natural Resources (e.g., Natural Resources 674, 790) may be counted toward the degree.
(b) Courses must be taken in at least three disciplines (e.g., Forestry, Wildlife, Biology, Education).
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(c) Thesis option (Plan A-recommended for mostion graduate students): (1) Thesis. A maximum of six credits will be counted toward the 30 credit re-
quirement; and (2) Seminar. A maximum of two credits will be counted toward the 30 credit requirement.
OR Non-Thesis Option (Plan B) is available only with the approval of the student's graduate committee and adviser: (1) Independent study: three credits (library research, management plan, etc.); and (2) Seminar. A maximum of two credits will be counted toward the 30 credit requirement.
(d) All degree candidates on campus must enroll in Natural Resources 794 every semester, except in
those semesters when enrolled in Natural Resources 795. Natural Resources 794 cannot be substituted for seminar requirements.

## Culminating Experience Requirements

All students are required to take a comprehensive final oral examination. This exam is conducted by the student's graduate committee. It includes questions relating to the student's thesis (Plan A) or seminar paper (Plan B), and all course work taken during the master's degree program.


## Courses of Instruction

## Patrick D. McDonough, Vice Chancellor for Academic

 Affairs.Donna G. Garr, Assistant to the Vice Chancellor Programs.
Douglas D. Radtke, Assistant to the Vice Chancellor Personnel.

## Departments of Instruction

College of Fine Arts, Paul M. Palombo, Dean.
Department Chairs: Art, Henry M. Runke; Communication, Myrvin F. Christopherson; Music, Charles O. Reichl; Theatre Arts, Alice Peet Faust.
College of Letters and Science, H. Howard Thoyre, Dean; William A. Johnson, Assistant Dean.
Associate Dean of the College of Letters and Science and Head of the Division of Business and Economics, Robert L. Taylor.
Department Chairs: Biology, Virgil A. Thiesfeld; Chemistry, Jack K. Reed; English, David G. Holborn; Foreign Languages, Mark R. Seiler; Geography and Geology, Thomas Detwyler; History, Justus F. Paul; Mathematics and Computer Science, Bruce Staal; Philosophy, John P. Zawadsky; Physics and Astronomy, Francis L. Schmitz; Political Science, Richard D. Christofferson, Sr.; Psychology, John Duncan Holmes; Sociology and Anthropology, Kirby L. Throckmorton.
College of Natural Resources, Daniel O. Trainer, Dean; James G. Newman, Assistant Dean.
Discipline Coordinators: Forestry, Robert J. Engelhard; Resource Management, Richard J. Wilke; Soils, Milo I. Harpstead; Water, John R. Heaton; Wildlife, Raymond K. Anderson.
Paper Science, Michael J. Kocurek, Chair.
College of Professional Studies, Arthur L. Fritschel, Dean.
Associate Deans and Heads of the respective Schools: Communicative Disorders, William H. Meyer; Education, Russell L. Oliver; Health, Physical Education, Recreation, and Athletics, Alice L. Clawson; Home Economics, Mary Jo Czaplewski.
Medical Technology, David P. Chitharanjan, Director. Military Science (ROTC), Lonnie G. Hartley, Chair.

## Course Numbers

Courses numbered below 100 do not carry college-level credit.
Courses numbered 100-199 are offered primarily at the freshman level. They are open to all students who have the prerequisites stated in the course descriptions. If no prerequisite is stated, the course is open to all students without restriction.
Courses numbered 200-299 are offered primarily at the sophomore level. Each of them requires a prerequisite,
which is normally "sophomore standing." However, some other prerequisite may be stated in the course description.

1. If the prerequisite is sophomore standing, the course is open to any student who has earned 26 credits (exclusive of required Physical Education).
2. If some prerequisite other than sophomore standing is stated, such prerequisite must be met, and students who meet it may take the course, regardless of the number of credits they have earned.
3. If no prerequisite is stated, it is understood that the prerequisite is sophomore standing.
Courses numbered 300-399 are offered primarily at the junior level. They require junior standing and whatever prerequisites are stated in the course description. They are open to students who have earned fifty-six credits (exclusive of required physical education) and who have the prerequisites stated.
Courses numbered 400-499 are offered primarily at the senior level. They require senior standing and whatever prerequisites are stated in the course description. They are open to students who have earned eighty-six credits (exclusive of required physical education) and who have the prerequisites stated.
Students who register in 200-, 300-, and 400- level courses without the required class standing and earned credits, or without the stated prerequisites, accept full responsibility for the grade earned in that class. Students who, for good cause, wish to register for a course for which they do not have the proper class standing and prerequisites should consult the department chairperson.
To receive a degree, a student must earn at least 40 credits in courses numbered 300-499.

## Graduate Courses

Courses numbered 300/500-399/599 may be taken either at the 300-level for undergraduate credit, or at the 500-level for graduate credit.
Courses numbered 400/600-499/699 may be taken either at the 400-level for undergraduate credit, or at the 600-level for graduate credit.
Courses numbered 700/799 are offered only at the graduate level.

## Pass-Fail Grading Program

Certain undergraduate courses (or certain sections of undergraduate courses) are available on a "Pass-Fail" basis. Such courses or sections are designated in the timetable. For the regulations governing this program see the section of the catalog entitled ACADEMIC WORK.

## Writing Emphasis Program

Donald J. Pattow, Coordinator. Room 486B, Collins Classroom Building. Phone: (715) 346-4758.

For graduation, all students must demonstrate proficiency in writing by successfully completing freshman English and at least six credits of writing emphasis (WE) courses. Writing Emphasis courses and sections will be designated in the timetable by the code (WE). It is strongly recommended
that one WE course be taken before the completion of 75 credits, and the other(s) after the completion of 75 credits. At least one course outside the student's major area must be used to fulfill the WE requirement.
The Writing Emphasis requirement applies to all persons who entered the University as freshmen in the first semester of 1981-82 and thereafter, and to all transfer and re-entry students who entered the University in the first semester of 1982-83 and thereafter. (Students transferring with 75 or more credits will be required to take only three credits of writing emphasis courses.)

## Experimental Courses

The Experimental Studies Committee, was established to make it possible for academic departments to develop and try out new courses, using innovative techniques or arrangements of subject matter, or developing new areas of study. Such courses are authorized for periods of up to two years, during which time evaluations and follow-up studies are made. After the trial period, the course may be submitted for approval as regular offerings.

## Abbreviations

Fr., So, Jr, Sr, Grad (st)-freshman, sophomore, junior, senior, graduate (standing)
cr-number of semester hours (and credits granted on satisfactory completion) per semester
Prereq:-Prerequisite(s)
con reg-concurrent registration-
cons instr-consent of instructor
equiv-equivalent
hr(s)-hour(s)
wk(s)-weeks(s)
lec-lecture
lab-laboratory
disc-discussion
(I), (II), (SS), indicate that the course is offered in the first semester, second semester, or summer session, respectively.
(A) indicates that the course is offered in alternate years.

## ACCOUNTING

Courses in Accounting and the major in Managerial Accounting are described in the section headed Business and Economics.

## AMERICAN STUDIES (College of Letters and Science)

Joel Mickelson, Director.
Room 433, Collins Classroom Building.
Phone: (715) 346-4749.
A. A major in American Studies consists of 48 credits divided among the four major areas: American History; American Literature; American Fine Arts, Communication, and Philosophy; and American Social Sciences. It is intended to provide a view of American culture as a recognizable entity, enabling students to better under-
stand their own culture and its relation to other cultures. Each student will be able to pursue personal interests in American culture by a concentrated selection of courses.

1. The major requires 32 credits of basic studies in American Life: Anthropology 339 (Indians of N.A.); English 213, 214 (Am. Literature); Geography 226 (U.S. and Canada); History 211, 212 (U.S.); Music 329 (Am.); Political Science 101 (Am. Politics); Sociology 300 (Am. Community); American Studies 101 (Am. Personality and the Creative Arts) and 300 (Am. Life).
2. Also nine credits in courses numbered 300 or above in a culture other than that of the United States from an approved list covering the history, literature, fine arts, philosophy, and social science of England, France, Germany, Russia, Latin America, the Far East, etc.
3. To complete the required 48 credits, at least seven credits of electives numbered 300 and above should be selected from an approved list of courses in the four areas of American Studies.
4. For certification to teach broad-field social studies in grades seven through twelve, students are required to make either of the following applications of Plans 1 and 3 as listed under the "Major-Minor Options in Secondary Education."
Plan 1-Students earning a major and minor in two of the contributing disciplines may at the same time earn a major in American Studies. Plan 3-Students earning the broad-field major in social science may at the same time earn a major in American Studies.
B. A minor in American Studies consists of American Studies 101 and 300 (three credit limit); and an additional 20 credits chosen from an approved list of courses in the four areas of American Studies, the additional courses to be selected from at least three of the four areas with a minimum of nine credits in courses numbered 300 or above.

## Courses in American Studies

101. American Personality and the Creative Arts. 3 cr . Interdisciplinary approach to American national personality as revealed by analyses of forms of American artistic expression; architecture, drama, fiction, music, painting, and poetry; the introductory course in American Studies.
102. Social Conscience in American Culture. 3 cr . The influence of concern for social betterment in American life, thought, and creative expression; materials drawn from the humanities, with emphasis on contemporary significance. A subtitie will be added each time the course is offered. The course may be repeated any number of times but the same subtitle may not be repeated.
103. American Lives: Blography and Autobiography. 3 cr. The lives, values, and cultural environments revealed in various examples of biography and autobiography of AmerIcans in such fields as business, labor, politics, religion, science, law, and the arts. Prereq. So st.
104. American Cultural Internationalism. 3 cr. American culture reflected in inter-relationships with representatives of other cultures, including American reactions to foreign countries and peoples, and foreign observers' opinions of Americans; the interaction of immigrant cultures with American life; materials from history, economics, the visual arts, literature and music. Prereq: So. st.
300/500. American Life. 3 cr . The integrating course in American Studies, for juniors and seniors, emphasizing an interdisciplinary study of American life in terms of concentration on a specific theme or period. A subtitle will be added each time the course is offered. The course may be repeated any number of times but the same subtitle may. not be repeated. (Examples: American Life in the 1920's and 30's; Minorities in American Life.)
105. Major Directions in American Arts in the 20th Century. 3 cr . Integrated studies of major movements in various American art forms during the present century; theories, techniques, and content in American dance, drama, film, literature, music, and the visual arts.
106. American Material Culture. 3 cr . Technological, aesthetic, and cultural significance of artifacts (man-made objects) in American social and economic history, such as house interiors, furniture, ceramics, paintings, musical instruments, folk architecture, automobiles, trains, ships, industrial machinery, and restored historical buildings and farms.
107. Special Work. 1 to 6 cr . Upper-class students may, by agreement with the American Studies director, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
108. Contemporary American Culture. 3 cr . Interdisciplinary approach to American life, thought, and creative expression since World War II; materials integrated from history, literature, the mass media, and the visual arts.

## ANTHROPOLOGY (College of Letters and Science)

Courses in Anthropology are taught by members of the department of Sociology and Anthropology, which also administers the major and minors in Anthropology.

Kirby L. Throckmorton, Chair.
Room 488A, Collins Classroom Building.
Phone: (715) 346-3060.
A. A major in Anthropology consists of 34 credits, 18 of which will be in courses numbered 300 or above. Sociology 101 or 102; Anthropology 101 and 111; Anthropology 450 or Sociology 250; Anthropology 320 or 330 or 343 ; 350 or 360 ; and 370 or 371 are required. The remaining credits may be earned in any other courses in Anthropology.
B. A minor in Anthropology consists of 22 credits in Anthropology, at least nine of which will be in courses numbered 300 or above; Anthropology 101 and 111, and at least three credits in courses other than those numbered 334 through 339 are required. The remaining credits may be earned in any other courses in Anthropology.

For teacher certification, Anthropology 101 and 111; Anthropology 450 or Sociology 250; Anthropology 320 or 330, or 343; 350 or 360; and. 370 or 371 are required.
C. A minor in Sociology and Anthropology consists of $\mathbf{2 2}$ credits, at least nine of which will be in courses numbered 300 or above. Anthropology 101 or 111; Sociology 101 or 102, and 305; Sociology 310 or Anthropology 312; Sociology 250 or 446 or Anthropology 450 are required.

## Courses in Anthropology

100. Forum in Anthropology. 1 cr. Lectures on and discussions of current social issues or topics in Anthropology. A subtitle will be added each time the course is offered. May. be repeated under different subtitles for a maximum of three credits. Two hrs per wk or equiv. PASS-FAIL ONLY.
101. (Formerly 112) Introduction to Anthropoiogy. 3 cr . General introduction to the sub-disciplines of Anthropology; biological, cultural, linguistics, and archeology; analysis of human cultural adaptations in various societies around the world.
102. Introduction to Biological Anthropology. 3 cr. Human evolution, genetic diversity, and prehistoric cultural development. (A course in high school biology, or Biology 110, is strongly recommended as preparation for this course.)
The former 112 is now 101.
103. Introduction to Native American Cultures. 3 cr. Introductory survey of selected Native American Cultures.
104. Culture and Language. 3 cr . Basic anthropological linguistics, ethnolinguistics, language and thought, comparative and historical approaches. Prereq: So st.
105. Introduction to World Prehistory. 3 cr. Development of culture from its beginnings to the historic period, as revealed by archaeological studies. Prereq: 101 or 111 or cons instr.
106. Special Topics in Anthropology. 1 to 3 cr. A subtitle indicating the topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 3 cr . in Anthropology or Sociology or cons instr.
107. Ways of Mankind. 3 cr . Theories of man's prehistory, language, and culture; ethnographic approach to the cultures of several non-literate folk, and urban-industrial societies. Credit may not be earned in both 310 and 101.
108. Culture and Personality. 3 cr . Development of personality in relation to patterns of cultures and sub-cultures in which one grows up; materials will be drawn from literate and non-literate cultures. Credit may not be earned in both 312 and Sociology 322.
109. Anthropology of Religion. 3 cr . Relationships between religion and other institutions in preliterate and peasant societies, and the impact of religion on the individual. Prereq: 101 or Sociology 101 or cons instr.
110. Anthropology of Politics. 3 cr. Comparative approaches to aspects of power, social coordination, conflict and dispute settlement at various levels of cultural complexity. Prereq: 101 or Sociology 101 or cons instr.
111. Peoples of Europe. 2 or 3 cr. Ethnological survey; the cultural organization of European societies and the signifi-
cance of social change. Prereq: 101 or 310 or Sociology 101 or cons instructor.
112. Peoples of Central and South America. 2 or 3 cr. Ethnological survey; the cultural organization of Central and South American societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr.
113. Peoples of Africa. 2 or 3 cr . Ethnological survey; the cultural organization of African societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr.
114. Peoples of Asia. 2 or 3 cr. Ethnological survey; the cultural organization of Asian societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr.
115. Peoples of the Pacific. 2 or 3 cr. Ethnological survey; the cultural organization of Pacific societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or cons instr.
116. Indians of North America. 2 or 3 cr. Ethnological survey; the cultural organization of North American Indian societies and the significance of social change. Prereq: 101 or 310 or Sociology 101 or con instr.
340-S. Field and Laboratory Techniques in Archaeology. 4 to 8 cr . Techniques, methods, and procedures of field and laboratory archaeology discussed and practiced in actual working conditions on archaeological excavation. Offered in summer only. Prereq: Cons instr.
117. Environmental Archaeology. 2 or 3 cr. Interrelationship between historic culture and environment, emphasizing the palio-environment and cultural adaptation. Two hrs lec per week for two credits; two additional hrs lab for third credit. Prereq: 101 or 111 or cons instr.
118. The Family: Cultural Perspectives. 2 or 3 cr . The family as a social institution, its place in different cultures and social strata, the impact of industrialization and urbanization. Credit may not be earned in both 343 and Soc 343.
119. Cultural Ecology. 3 cr . Adaptive interactions between cultures and their material and social environments. Prereq: 101 or Sociology 101 or cons instr.
120. Economic Anthropology. 3 cr. Comparison of economic organizations and problems in primitive peasant societies. Prereq: 101 or Sociology 101, or cons instr.
121. Socio-Cultural Change in Emergent Countries, 3 cr. Problems and processes of development in emerging countries.
122. Native North American Cultural Change. 3 cr. Twentieth century sociocultural continuities and changes among selected Native North American societies.
123. Seminar: Fields of Anthropology. 2 or 3 cr . Theory and research in Anthropology as it applies to general and special areas of study. A subtitle indicating the subject will be added each time the course is offered; may be taken for credit more than once as subject matter changes; primarily for majors. Prereq: Nine cr in Social Sciences or cons instr.
450/650. Anthropological Theory. 3 cr . The development of anthropology theories from the early nineteenth century to the present. Prereq: 101 or 111 or nine credits in the social sciences.
124. Special Work. 1 to 3 cr. Upper-class students majoring or minoring in Anthropology may, by agreement with the
chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. The course may be repeated for a maximum of six credits.

## ART <br> (College of Fine Arts)

Henry M. Runke, Chair.
Room B-116, College of Fine Arts Building.
Phone: (715) 346-2669.
A. A major in Art is offered within two baccalaureate degree programs:

1. The Bachelor of Science degree with teacher certification.
2. The Bachelor of Fine arts degree.

The major consists of a minimum of 55 credits in Art, including 101, 102, 103, 104, 282, 283, 321, 331, 334, 341, 351, 361, 371 and 490.
For teacher certification, Art Education 322 and 331; Education 100, 351, 355, 380, 381, 386 and 14 credits of 398; Psychology 110, 260; Sociology 305 are also required. (A minor is not required with a 55 credit major.)
Along with completing Department of Art requirements within the Bachelor of Fine Arts degree, students can select a variety of course groupings that will satisfy their special interests. Department of Art faculty advisers will consult and counsel with students wishing to prepare in professional studio disciplines or a Graphic Design program.
B. A minor in Art consists of 21 credits including:

1. Art 101, or Home Economics 101, Art 102, 103.
2. Three of these: Art 106, 202, 321, 331, 334, 341., 343, 347, 351, 361, 371.
3. Art 282 or 283 or 381.
C. A minor in Art History consists of $\mathbf{2 1}$ credits including:
4. Art 101, 102.
5. Art 282, 283.

6. Three of these: Art 382, 383, 384, 385, 386, 387, 388, 389, 399K.
In certain cases, substitutions may be permitted by the chair of the department.
Course fees are charged for certain studio courses to cover the cost of materials supplied to the student. In some other cases supplies are available for purchase on a nonprofit basis from the instructor of the course.
The Art department, after consultation with the student, reserves the right to hold one piece of work in each studio area for display purposes and as part of the permanent collection of the department.
Senior Art majors and minors who are approaching graduation are invited to enroll in the Senior Exhibition course and to use the Edna Carlsten Gallery facilities to mount a culminating show of their work. Shows can be mounted on an individual or multi-person basis. Gallery space and reservations can be arranged with the gallery director.

## Courses in Art

See also Art course listings under Art Education (next section).
101. Design: 2 dimensional. 3 cr. Fundamental design principles in the art process, including art structure, color theory, and principles of arrangement, utilizing a variety of materials. Students may not receive credit for both Art 101 and Home Ec. 101.
102. Design: 3-dimensional. 3 cr. Fundamental design principles in the art process, in structure and arrangement utilizing a variety of materials.
103. Drawing. 3 cr . Basic drawing utilizing a variety of subject matter, media, and approaches with emphasis on visual perception and awareness. Prereq: 101 or 102.
104. Basic Drawing. 3 cr. Basic drawing utilizing a variety of subject matter, media, and approaches, emphasizing visual perception and individual development. Prereq: 103.
106. Layout and Lettering. 3 cr . Fundamentals of lettering in various alphabets; problems in poster, sign, and advertising layout in a variety of media.
181. History and Appreciation of Art. 3 cr. Themes and purpose of art; how art functions in society and influences the individual; the motivation of the artists who create it. May not be taken for credit toward the art major; credit will not be granted for both 181 and 381.
201. Advanced Design. 3 cr . Application of design theory and concepts through an investigation and use of various media and materials. Prereq: 101, 102.
202. Color. 3 cr . Theory and practice in the perception, understanding, and usage of color. Prereq: 101 or Home Economics 101.

The former 203 is now 303.
206. Layout and Lettering. 3 cr . Course to be determined between student and instructor on the basis of previous work. Prereq: 106 or cons instr.
207. Introduction to Graphic Design. 3 cr. Basic techniques for production of comprehensive layout of ads and logo design; emphasis on processes used to fulfill client needs in a variety of advertising media, including copy-fitting and keyline. Prereq: 103 or cons instr.

The former 221 is now 321.

| $\prime \prime$ | 231 | $"$ | 331. |
| :--- | :--- | :--- | :--- |
| $"$ | 234 | $\prime$ | 334. |

236. Life Drawing. 3 cr. Drawing the human figure with attention to anatomy, utilizing a variety of media. Prereq: 103.

The former 241 is now 341.

| $"$ | 243 | $"$ | 343. |
| :--- | :--- | :--- | :--- |
| $"$ | 251 | $"$ | 351. |
| $"$ | 261 | $"$ | 361. |
| $"$ | 271 | $"$ | 371. |

282. History of Ancient and Medieval Art. 3 cr. Survey of architecture, sculpture, and painting including Egypt, Greece, Rome, and Medieval Europe. Prereq: So st.
283. History of Renaissance and Modern Art. 3 cr. Survey of architecture, sculpture, and painting in the western world from the 15th century to the present. Prereq: So st.
284. Survey of the Arts of Africa, Oceania, and the Americas. 3 cr . The arts of Sub-Saharan Africa, Oceania, and Indian Art of North and South America before 1520. Prereq: So st or cons instr.
285. (Formerly 203) Drawing. 3 cr. Advanced problems in drawing emphasizing conceptual development. Prereq: 103.

The former 303 is now 403.
308. Illustration. 3 cr . Rendering and adaptation of images, using various media and techniques to produce facsimilies and caricatures; technical drawings for graphic advertising purposes. Prereq: 207 or cons instr.
309. Illustration. 3 cr . Specialized work to be determined between student and instructor, based on previous course work. Prereq: 308.
310. Illustration. 3 cr . Specialized work to be determined between student and instructor, based on previous course work. Prereq: 309.
311. Advanced Graphic Design. 3 cr. Application of basic advertising techniques, illustration, and comprehensive layout to the various processes of media production; emphasis on layout and finished artwork for packaging, brochures, and greeting cards. Prereq: 207.
321. (Formerly 221) Printmaking. 3 cr. Printmaking in black and white, and color, employing basic graphics media and techniques. Prereq: 103.
The former 321 is now 322.
322. (Formerly 321) Printmaking. 3 cr. Advanced problems in the graphics media. Prereq: 321.
The former 322 is now 421.
323. Papermaking. 3 cr . Work with various papermaking processes, involving different pulps, aggregates, fibers, use of molds, deckles, couching paper on felts, and use of equipment such as vats, beaters, and dryers; emphasis on creative use of paper making by artists. Six hrs lab per wk. Prereq: 221 or cons instr.
331. (Formerly 231) Painting: Watercolor. 3 cr. Problems in the aqueous media emphasizing transparent and opaque watercolor on paper. Prereq: 103.
The former 331 is now 332.
332. (Formerly 331) Painting: Watercolor. 3 cr. Advanced problems in watercolor media. Prereq: 331.

The former 332 is now 431.
334. (Formerly 234) Painting: 3 cr. Contemporary and traditional techniques and problems in painting in a variety of media. Prereq: 103.
The former 334 is now 335.
335. (Formerly 334) Painting. 3 cr . Advanced problems in the oil medium and other contemporary media. Prereq: 334.

The former 335 is now 434.
336. Life Drawing. 3 cr . Continuation of study of the human figure with emphasis on experimental work. Prereq: 236.
The former 337 is now 436.
341. (Formerly 241 ) Crafts. 3 cr . Application of design principles in various craft activities. Prereq: 103.
The former 341 is now 342.
342. (Formerly 341) Crafts. 3 cr . Advanced problems of applied design in various craft activities. Prereq: 341,
The former 342 is now 441.
343. (Formerly 243) Fiber Arts. 3 cr. Exploration of fiber arts; thematic imagery through techniques of fabric printing, tapestry image, woven sculpture, and sewn sculpture; individual student work must include two of these areas. Prereq: 103 or Home Economics 101 or cons instr.
The former 343 is now 344.
344. (Formerly 343) Fiber Arts. 3 cr. Advanced problems in fiber arts; exploration of techniques not covered in 343, with emphasis on individual development of content. Prereq: 343.
The former 344, 345, and 346 have been discontinued
347. Crafts of the American Indians. 2 or 3 cr . A laboratory investigation into the material culture of the Indians of North America with emphasis on the traditional crafts of the Woodland Cultures; experience in such crafts as weaving, lapidary, basketry, quill embroidery, ceramics, and other media available directly from natural resources; field trips. Prereq: Jr st or cons instr.
348. Crafts of the American Indians. 2 or 3 cr. Course to be determined between student and instructor on the basis of previous work. Prereq: 347 or cons instr.
351. (Formerly 251) Sculpture, 3 cr. Introduction to materials and techniques of sculpture. Prereq: 103.
The former 351 is now 352.
352. (Formerly 351). Sculpture. 3 cr. Advance problems in sculpture including a greater variety of materials and advanced techniques. Prereq: 351.

The former 352 is now 451.
361. (Formerly 261) Ceramics. 3 cr . Introduction to the materials and techniques of ceramics; methods of construction of ceramic ware, glazing, firing, and kiln management. Prereq: 103.
The former 361 is now 362.
362. (Formerly 361) Ceramics. 3 cr . Advanced problems and techniques in ceramic art. Prereq: 361.
The former 362 is now 461.
371. (Formerly 271) Art Metal. 3 cr. Basic materials and techniques of art metal. Prereq: 103.
The former 371 is now 372.
372. (Formerly 371) Art Metal. 3 cr. Advanced problems in art metal. Prereq: 371.

The former 372 is now 471.
381. History of the Visual Arts. 3 cr. Major periods, styles, artists, and problems of architecture, sculpture, and painting. Not open to Art majors to fulfilt Art department history requirements or to students who have had Art 282 or 283.
382/582. History of Latin American Art. 3 cr. Survey of the visual arts of Latin America from prehistoric to contemporary times.

383/583. History of 19th and 20th Century European Painting. 3 cr . Survey of the development of modern European painting.
384/584. History of American Painting to the End of W.W. II. 3 cr . Survey from the colonial period to 1945.
385/585. History of American Painting and Sculpture since WW. II. 3 cr. Survey of recent American painting and sculpture; Abstract Impressionism to the present.

386/586. History of Modern Architecture. 3 cr. Survey of the development of modern and American architecture of the 19th and 20th centuries. Prereq: 282 or 283 or 381.
387/587. History of Classical Art. 3 cr. Survey of the classical tradition with emphasis on its development in the Greek world.

388/588. Sub-Saharan African Arts. 3 cr. Survey of the visual tribal arts of black Africa with emphasis on architecture and sculpture.
389/589. Italian Renaissance Art. 3 cr. Historical survey of Italian architecture, painting, and sculpture from Giotto to Michelangelo. Prereq: 282, or 283, or 381, or cons instr,
390. Economic Survival Techniques for the Professional

Artist. 3 cr . Fiscal and legal aspects of the field of professional art; survey of basic, sound business practices, production and marketing, advertising, competitive bidding and commissions, contracts, client development, etc. Prereq: Junior standing as an art major or minor, or cons instr.
398. Special Topics. 1, 2, or 3 cr. Special work in one medium or technique. Subtitle and credit value will be added each time the course is offered. Prereq: Jr st and cons instr.
399. Special Work. 1 to 3 cr . each. Upper-class students majoring or minoring in Art may, by agreement with the chair and an appropriate member of the Art department, arrange for special advanced work, for which credit may be allowed on the basis of the scope of the work intended.
399A-Design; 399B-Drawing; 399C-Printmaking;
399D-Painting; 399F-Crafts; 399G-Sculpture;
399H-Ceramics; 399J-Art Metal; 399K/589K-Art History; 399Z-(Subtitle will be supplied).
410. Advanced Graphic Design. 3 cr. Specialized work to be determined between student and instructor, based on previous course work. Prereq: 311.
411. Advanced Graphic Design. 3 cr. Specialized work to be determined between student and instructor, based on previous course work. Prereq: 410.
421. (Formerly 322) Printmaking. 3 cr . Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 322.
422. Printmaking. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 421.
431. (Formerly 332) Watercolor. 3 cr . Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 332.
432. Watercolor. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 431.
434. (Formerly 335) Painting. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 335.
435. Painting. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 434.
436. (Formerly 337) Life Drawing. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 336 or cons instr.
441. (Formerly 342) Crafts. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 342.
442. Crafts. 3 cr . Senior semester professioinal experiences; media problems to be determined between instructor and student. Prereq: 441.
443. Fiber Arts. 3 cr . Senior semester; work to be determined between instructor and student on the basis of previous experience in fiber arts. Prereq: 344.
451. (Formerly 352) Sculpture. 3 cr . Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereqः 352.
452. Sculpture. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 451.
461. (Formerly 362) Ceramics. 3 cr . Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 362.
462. Ceramics. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 461.
471. (Formerly 372) Art Metal. 3 cr. Course of study to be determined between student and instructor, based on previous course work in the same medium. Prereq: 372.
472. Art Metal. 3 cr . Senior semester professional experiences; media problems to be determined between instructor and student. Prereq: 471.
490. Seminar. 2 cr. Research into problems and developments in the field of Art. Open only to Art majors.
491. Senior Exhibition. 1 cr. Preparation, organization and installation of a BFA gallery exhibition. Prereq: Senior standing.
701. Historical and Philosophical Concepts of Art. 3 cr. Philosophical and aesthetic aspects of Art in both its historical and contemporary phases; the arts in the life of the individual; the function of arts in society. For students with little or no background in Art.
702. Historical and Philosophical Concepts of Art: Renaissance and Modern. 3 cr . Philosophical and aesthetic as-
pects of Art in the life of the individual and its function in society. For students with little or no background in Art. Need not be taken in sequence to 701.
703. Drawing. 3 cr . Advanced problems in drawing with emphasis on the development of individual direction, utilizing a variety of media. Prereq: One yr of appropriate course work and cons instr.
721. Printmaking. 3 cr . Individual research and execution of problems in chosen processes of printmaking; emphasis on experimentation, personal concept, and increased development of technical proficiency; acquisition of historical printmaking background, and print study. Prereq: One yr of appropriate course work and cons instr.
731. Painting: Watercolor. 3 cr . Advanced problems in transparent and opaque watercolor with emphasis on the development of individual direction. Prereq: One yr of appropriate course work and cons instr.
734. Painting. 3 cr . Advanced problems in painting with emphasis on the development of individual direction, utilizing a variety of media. Prereq: One yr of appropriate course work and cons instr.
736. Life Drawing. 3 cr. Advanced problems in drawing with emphasis on the development of individual direction, utilizing a variety of media. Prereq: One yr of appropriate course work and cons instr.
741. Crafts. 3 cr . Continuing studio investigations in a variety of craft materials based upon previous student experience. Prereq: One yr of appropriate course work and cons instr.
The former 743 (Weaving) has been discontinued.
743. Fiber Arts. 3 cr. Advanced problems in traditional and contemporary techniques in weaving, fabrics, dyes, and design; course of study to be determined between student and instructor, on the basis of previous work. Prereq: One yr of appropriate course work and cons instr.
The former $\mathbf{7 4 5}$ has been discontinued.
751. Sculpture. 3 cr . Course of study to be determined between student and instructor on the basis of previous work. Prereq: One yr of appropriate course work and cons instr.
761. Ceramics. 3 cr . Glaze calculation, clay body formulation, kiln management; advanced construction techniques and skill development; research project required. Prereq: One yr of appropriate course work and cons instr.
771. Art Metal. 3 cr. Advanced studio involvement in historical and contemporary practices in metal, lapidary, and related media. Prereq: One yr of appropriate course work and cons instr.
796. Independent Study. 1 to 3 cr . Special work. Prereq: Cons instr.

## Courses in Art Education

322. Techniques in the Elementary School: Art. 2 cr. Methods, materials, and philosophy.
323. Techniques in Secondary Education: Art. 2 cr . Aims, methods, techniques, planning, organization, testing, etc.
340/540. Curriculum in Art. 2 cr. Seminar in planning and developing an individual or group art curriculum for grades K-12. Prereq: Education 398 or cons instr.

## ASIAN STUDIES <br> (College of Letters and Science)

Hugh Walker, Coordinator.
Room 418, College of Professional Studies Building. Phone: (715) 346-2238.
A Minor in Asian Studies consists of 24 credits:

1. Basic Courses-12 credits selected from the following: Asian Studies 101 (Introduction); Comparative Literature 250 (Asian); Geography 327 (Asia); History 215 (East Asia to 1800); 216 (East Asia Since 1800); Philosophy 105 (India and China); Political Science 206 (Comparative Politics*).
2. Specialized Courses-12 credits selected from the following specialized Asian content courses (area or disciplinary emphasis to be determined in consultation with the Asian Studies coordinator):
Anthropology 337 (Peoples of Asia); Asian Studies 399 (Special Work); Comparative Literature 251 (Asian Fiction), 252 (Asian Drama), 253 (Asian Poetry); History 344 (The Mongols), 345 (China to 1644), 346 (China Since 1644), 347 (Japan to 1854), 348 (Japan Since 1854), 349 (Korea to 1800), 350 (Korea Since 1800), 351 (Vietnam Since 1800); Music 428 (Pacific, Near East, Asia), Philosophy 335 (Hinduism, Buddhism), 336 (Contemporary Indian Thought), 337 (Indian Yoga), 338 (Chinese); Political Science 370 (Asia), 396 (Radical and Utopian*); Religious Studies. 100 (Eastern Religions); Sociology 375 (Social Structure and Change in Northeast Asia).
3. Asian language study is acceptable for credit toward the minor.
"When offered with primary emphasis on Asia.

## Courses in Asian Studies

101. Introduction to Asian Studies. 3 cr . Traditional and contemporary Asia, emphasizing its unity and diversity. from an interdisciplinary approach; geographical, historical, philosophical, religious, governmental, social, anthropological, linguistic, literary, artistic, and cultural aspects of Asian life.
102. Special Work. 1 to 3 cr . Upper-class students in the Asian Studies minor may, by agreement with the Asian Studies coordinator, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to special project.

## ASTRONOMY (College of Letters and Science)

Courses in Astronomy are taught by members of the department of Physics and Astronomy.
Francis L. Schmitz, Chair.
Room B-111, Science Building.
Phone: (715) 346-2139.

## NOTES:

(1) A student may not take both Astronomy 100 and 105 for credit.
(2) A student who has taken Astronomy 105 and 106 may not take 100 or 311 for credit.

## Courses in Astronomy

100. Unveiling the Universe. 3 cr. An encounter with man's ideas concerning the physical universe, from earth to intergalactic space. Two hours lec, two hours lab per week.
This course may be used in partial fulfillment of Part B of the Natural Science requirement of the general degree requirements.
101. The Solar System. 4 cr. A contemporary perspective with emphasis on understanding basic principles of astronomy; recent results of space exploration. Three hrs lec, three hrs lab per wk. Prereq: Level I preparation in mathematics.
102. Stars and Stellar Systems. 4 cr. An examination of the content and evolution of the universe, including the birth and death of stars, the nature of galaxies, and the mystery of quasars and blackholes, with emphasis on understanding physical concepts. Three hrs lec, three hrs lab per wk. Prereq: Level I preparation in mathematics.
103. Introduction to Astronomy. 3 cr. Descriptive approach to astronomy through study of the solar system, stars, star clusters, nebulae, and galaxies; evening meetings required for observation; use made of telescopes and planetarium. Not open to students who have had 105 and 106.
370/570. Astronomy for Teachers. 4 cr . An introduction, with emphasis on the Earth, Moon, Sun, and the total solar system, stars, star systems, and recent discoveries; emphasis on teaching. Prereq: Experience in, or preparation for, teaching science.
371/571. Laboratory in Planetarium Studies. 2 cr. Planetarium studies, laboratory exercises, night sky observations, geometric optics, atomic physics, spectrum analysis, celestial sphere exercises, the Moon, Saturn and its rings, the Sun and sun spots, stellar classification, and curriculum materials for grades K-8. Four hrs lab per week, night observations. Prereq: Experience in, or preparation for, teaching science.
104. Selected Topics. 1 to 3 cr . Topic will be announced in the timetable. Prereq: Cons instr.
105. Independent Study. 1 to 4 cr. Planned study designed to enrich and supplement the student's preparation in astronomy. Regular scheduled conferences with the staft supervisor.

## BIOLOGY <br> (College of Letters and Science)

Virgil A. Thiesfeld, Chair.
Room 110, College of Natural Resources Building. Phone: (715) 346-2159.
A. A major in Biology consists of the following:

1. A minimum of 34 credits in biology as follows:
a. Biology 130, 160, 210, and 490.
b. One of the following: Biology 281, or 285, or 314, or 351, or 381.
c. An additional plant course selected from the forlowing: Biology 244, 330, 331, 332, 335, 337, 338, 342, 346, 351, 355.
d. An additional animal course selected from the forlowing: Biology 281, 285, 360, 361, 362, 364, 367, $370,371,372,373,374,375,376,377,378,379,381$, $385,388$.

e. Elective credits in Biology.
2. Collateral courses:
a. Chemistry 105 and 106, or 115 and 116.
b. Mathematics 116 and 117 , or 120 , or 355 . (Exemption from general degree requirements for mathematics does not exempt biology majors from this requirement.)
Geology 339 and Water 387, 481, 483, and 487 are acceptable as part of the biology major.
To be accepted as a major, to be retained as a major, and to be approved for graduation, the student must have a minimum cumulative grade point ratio (GPR) of 2.00 in courses taken within the Biology major (this includes collateral courses) regardless of declaration of academic bankruptcy. Transfer students must meet this requirement by having at least a 2.00 GPR in the total major and at least a 2.00 cumulative GPR in courses taken at Stevens Point for the Biology major.
For teacher certification the minimum cumulative GPR is 2.25 with transfer students subject to the conditions listed above.
No more than six credits of D work in Biology courses will be counted toward the completion of the Biology major. All grades of D or F are used to compute the cumulative GPR in the major. If a course is repeated, the last grade earned is the grade used in the GPR calculation.
The department chair may allow exemptions to the above on a conditional basis.
B. A minor in Biology consists of a minimum of 22 credits:
3. Biology 130 and 160.
4. Any two of the following categories:
a. Biology 210.
b. Biology 281 or $\mathbf{2 8 5}$ or $\mathbf{3 1 4}$ or 351 or 381 .
c. Biology 305.
5. Elective credits in Biology.

To be approved for graduation with a minor in Biology, the student must have a minimum cumulative grade point ratio of 2.00 in all courses taken within the Biology minor re-
gardless of a declaration of academic bankruptcy. Transfer students are subject to the conditions listed under the major.

Areas of emphasis include the courses specified for the major plus the following suggestions. Selection of options and recommended courses should be discussed with your adviser to insure adequate preparation for specific careers.

Agribusiness: Recommended: 337, 342, 346, 351, 367; Soils 260; Business 210; Natural Resources 373. Supplementary: Biology 333, 335; Business 330, 370; Chemistry 220 or 225 or 260; Communication 336; Economics 200 (201); English 354; Geography 110. Additional applicable courses for landscaping: Art 101, 102; Biology 244; Forestry 333; Geography 373; Natural Resources 171, 368, 369.
Aquatic Biology: Recommended: 360 or 361 or Water 387; 338, 347, 374; Chemistry 220 or 225 and 226; Mathematics 355; Physics 103 or 201 and 202; Water 481, 483. Supplementary: Biology 362, 367, 375; Water 389, 480, 482, 484, 487, 488.
Botany: Recommended: 330, 337, 342, 346, 351, 355; Organic Chemistry. Supplementary: 314, 331; 333 or 355; 367; Soils 260.
Ecology: Recommended: 281 or 351; 333, 342, 360, 367, 372, Modules in Ecology; Chemistry 220; Mathematics 355; Soils 260; Geography 379; Computer Science 102. Supplementary: Other courses in Biology; Geography 102, 103; Mathematics 224; Physics 103 or 201 and 202; Political Science 304; Philosophy 380; Natural Resources 481.
Education: Recommended: 281 or 285; 330 or 342; 314 or 333 or 351. Supplementary: 355 or $385 ; 360,367$ or 372.

Graduate Work: Many graduate programs in biology require a full year of organic chemistry, physics, and math through calculus and statistics. See your adviser for specifics.
Microbiology: Recommended: 314; 362 or 364; 333, 335, 338. Supplementary: 337, 360, 399; Mathematics 355; Chemistry minor.
Natural History: Recommended: 322, 342, 360, 367, 372, 379. Supplementary: 339, 399; Geology 101; Geography 101; Natural Resources 368, 369.
Zoology: Recommended: 281; 311 or 314; 370 or 371; 344 or 360 or 361 or 362 or $367 ; 372$ or 374 or 375 or 376 or 377 or 378 . Supplementary: 310, 320, 322, 373, 381, 385, 388; Water 481; Geology 339.
Pre-professional: All areas listed also require Biology 160 and 281 or 285, English, humanities, psychology, sociology, and speech. See the appropriate pre-professional adviser for suggested electives and requirements of specific schools.
Pre-Dental: Chemistry 115, 116, 225, 226, 228; Mathematics 116 and 117, or 120; Physics 103, 104; additional helpful courses: Art 102, 103; Biology. 210, 314, 371; Psychology 260 or 315.

Pre-Medicai: Biology 210; 314 or 370 or 371; Chemistry 115, 116, 225, 226, 228, 248; Physics 103, 104; Mathematics 116, 117, 120, 121; additional helpful courses: Biology 333, 373, 381; Chemistry 365.

Pre-Mortuary: Business 210; one year of Chemistry; Mathematics 107.
Pre-Optometry: Chemistry 115, 116; Mathematics 116, 117; Physics 103, 104; additional helpful courses: Chemistry 230; Mathematics 351, 352.
Pre-Veterinary: Biology 130, 210, 333; Chemistry 115, 116, 225, 226, 228; 260 or 365; Mathematics 116 and 117, or 120; Physics 103, 104.

## Courses in Biology

100. Biological Principles and the Human Environment. 3 cr. A survey of biology with special emphasis on present and future relationships of humans to their environment. Two hrs lec, three hrs lab per week. This course will apply to part B of the Natural Science requirement for the BacheIor of Music and the Bachelor of Science degrees.
101. General Biology. 5 cr. Biological principles; survey of a wide variety of plant and animal life. Three hrs lec, four hrs lab per week. If Biology 130 or 160 (or equiv) is taken, 101 can be counted for graduation or for the major only with approval of the chair.
109 has been discontinued.
102. Introduction to Plant Biology. 5 cr . General biological principles with emphasis on growth, reproduction, structure and functions of plants; morphological studies of typical plants. Three hrs lec, four hrs lab per week.
103. Edible and Poisonous Plants. 2 cr. Identification of edible and poisonous plants, especially local wild species of higher plants; nutritional values and toxic components. One hr lec, two hrs lab per week. Does not apply toward Natural Science requirement for a degree.
104. Introduction to Animal Biology. 5 cr . Anatomy, physiology, adaptation, and classification of animals; morphology and anatomy of various types of animals. Three hrs lec, three hrs lab per week. Additional two-hour test sections four times during the semester.
105. has been discontinued.

The former 205 is now 305.
The former 206 is now 306.
210. Principles of Genetics. 3 cr . General principles of heredity and variation of plants and animals, including humans. Prereq: So st.
275. Introductory Bird Study. 2 cr . Identification, life histories, and external morphology of the common birds of Wisconsin. One hr lec, two hrs lab per week. Not open to students majoring or minoring in Biology or Natural Resources. Prereq: So st.
281. Animal Physiology. 4 cr . Normal functions of organ systems primarily in vertebrates but with some consideration of invertebrates; designed to fulfilt the physiology requirements of Biology and Wildlife majors. Three hrs lec, three hrs lab per wk. Prereq: 160. Credit for this course cannot be counted for graduation or the major if Biology 285 (or equivalent) is counted.
285. Human Physiology. 4 cr. Normal functions of organ systems in humans; designed to fulfill the physiology requirements of Biology, Home Economics, Physical Education majors and students with pre-professional interests in medical or paramedical fields. Three hrs lec, three hrs lab per wk. Prereq: 160; or 101 and Chemistry 101. Credit for
this course cannot be counted for graduation or the major if Biology 281 (or equivalent) is counted.
305. (Formerly 205) General Ecology. 3 cr. Interrelationships of plants and animals; ecosystem concepts; organization and distribution of biotic communities; application of ecological principles to human affairs. Prereq: 101; or 130 and 160.
306. (Formerly 206) Ecological Methods. 1 cr. Application of ecological methods in field and laboratory analyses of ecosystems. Three hrs lab per wk. Prereq: Con reg in 305; or 305 and cons instr.
307/507. Microenvironmental Analysis Laboratory. 1 cr. Measurement of microenvironmental variation in terrestrial ecosystems; implications for distribution and functioning of plants and animals. One hr lec-lab plus two hrs unscheduled per week. Prereq: 305 or cons instr. Con reg in 307 or 356 (labs) recommended.
308/508. Ecology of the Upper Midwest. 2 cr . Survey of the boreal forest, deciduous forest, and prairie biomes, with emphasis on the relationships of the fauna to vegetation composition and form. Two hrs lec, three hrs lab for eight weeks. Local field trips.
309/509. Field Biology. 3 cr. Field trips; collections, preparation, and identification of plants and animals. One hr lec, four hrs lab per week. Not to be counted as credit if 342 and/or 379 are also taken. Prereq: 101, or 130 and 160.
310/510. Experimental Genetics. 2 or 3 cr . Experimental techniques used in cellular, organismic, and population genetics. One hr lec and three or five hrs lab per wk. Prereq: 210 or con reg.
311/511. Organic Evolution. 3 cr . Origin and evolution of the Bios. Prereq: 101; or 130 and 160.
$314 / 514$. Cell Biology. 4 cr . Structure of the cell and function of its component organelles; methods for study of the cell and the cellular and molecular bases of cytogenetics. Two hrs lec, four hrs lab per wk. Prereq: 130, 160; and Chemistry 106 or 116.
318. Human Genetics and Eugenics. 3 cr. Principles of heredity and variation with some emphasis on social and ethical implications. Not open to students majoring or minoring in biology. Credit may not be earned in both 210 and 318.
319. Biology of Aging. 3 cr. (Experimental 1981-1983) Aging among plants and animals with reference to human senescence; nutrition and health maintenance. Prereq: 101; or 130 and 160; or con instr.
320/520. Biological Technique. 4 cr . Preparation of plant and animal tissues, organs, and entire organisms for microscopic and macroscopic study. Two hrs lec, four hrs lab per week. Prereq: 101, 130 and 160.
322/522. Museum Methods. 3 cr . Preparation, utilization, and care of natural history materials for research and exhibition; preparation of educational programs for museums, nature centers, and schools; for teachers and those interested in museums or nature center professions. Six hrs lab per week. Prereq: Cons instr.
$326 / 526$. Electron Microscope Techniques. 4 cr . Methods of fixation, embedding, microtomy; and staining of plant and animal tissues for electron microscope examination; operation of the electron microscope and basic photographic
darkroom techniques. One hr lec, nine hrs lab per wk. Prereq: Chemistry 106 or 116; preparation in cellular biology, and cons instr.
330/530. Plant Morphology. 4 cr . Form and structure of plants and plant parts, both vegetative and reproductive.
Two hrs lec, four hrs lab per week. Prereq: 101 or 130.
331/531. Plant Anatomy. 4 cr . Internal structures of vascular plants, with special emphasis on development, function, and evolutionary history. Two hrs lec, four hrs. lab per week. Prereq: 101 or 130.
$332 / 532$. Paleobotany. 3 cr . Survey of fossil record of plants, with emphasis on morphology and evolutionary trends in major plant groups; chronological successions and geographic distribution of past floras. Two hrs lec, two hrs lab per week. Prereq: 101 or 130.
333/533. General Bacteriology. 4 cr. Morphology, physiology, classification, and cultivation of bacteria, with consideration of applied phases of bacteriology. Two hrs lec, four hrs lab per wk. Prereq: 101, 130, or 160; and Chemistry 106 or 116.
335/535. Mycology. 4 cr . The taxonomy, morphology, physiology, and ecology of fungi; the role of fungi in disease, industry, decomposition, food production, and biological research. Two hrs lec, four hrs lab per week. Prereq: 130 or cons instr.
337/537. Plant Pathology. 3 cr . Causes, symptoms, spread, and control of plant diseases. Two hrs lec, two hrs lab per week. Prereq: 130.
338/538. Algology. 3 cr. Taxonomy, morphology, and ecology of algae with emphasis on local species. Two hrs lec, two hrs lab per week. Prereq: 130.
339/539. Bryology and Lichenology. 2 cr. Taxonomy, morphology, and ecology of bryophytes and lichens with emphasis on local species. One hr lec, three hrs lab per week. Prereq: 101 or 130.
342/542. Vascular Plant Taxonomy. 3 or 4 cr. A survey of the major groups with emphasis on identification, classification, and phylogeny of flowering.plants. Two hrs lec and two or four hrs lab per week. Prereq: 101 or 130:
344/544. Trees and Shrubs. 3 cr. Identification of woody plants, native and cultivated, in summer and winter conditions; methods of vegetative propagation; their use for landscaping and wildlife food. One hr lec, four hrs lab per wk (some field trips). Prereq: 101 or 130.
345/545. Agrostology. 2 cr. Structure, identification, classification, and evolution of grasses and grass-like plants. One hr lec, two hrs lab per wk. Prereq: 101 or 130.
346/546. Essentials of Horticulture. 3 cr. Propagation, culture, improvement, and storage of flowers, fruits, ornamentals, and vegetables. Two hrs lec, three hrs lab (field trips) per wk. Prereq: 130.
347/547. Aquatic Vascular Plants. 2 cr. Taxonomy and ecology of aquatic vascular plants with emphasis on local species of freshwater angiosperms. One hr lec, two hrs lab per week. Prereq: 101 or 130.
351/551. Plant Physiology. 4 cr. Plant-soil-water relations, transport, mineral nutrition, plant biochemistry, and the environmental and hormonal control of plant growth and development. Three hrs lec, three hrs lab per wk. Prereq: 130; and Chemistry 106 or 116.

355/555. Plant Ecology. 2 cr. Plant adaptations and responses to environmental variation; structure, microenvironments, and succession of plant communities. Prereq: 305 or cons instr. Con reg in 307 or 356 (labs) recommended.
356/556. Plant Community Sampling and Analysis. 1 cr. Design and execution of vegetation studies as affected by objectives, time constraints and community type. Four hrs lec-lab per week for eight weeks of sem, plus individual project; Prereq: 305 or 355 or con reg, or cons instr.
357/557. Principles of Plant Community Distribution. 1 cr. Ecological survey of world vegetation, relating community form and composition to prevailing climate, soils, and past environmental change. Prereq: 308 or 355 or con reg, or cons instr.
360/560. Invertebrate Zoology. 4 cr. Structure, function, classification, and life history of each of the major groups of invertebrate animals (exclusive of the insects and parasitic invertebrates). Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
361/561. Aquatic Invertebrate Zoology. 3 cr. Collection and identification of lotic and lentic freshwater invertebrates (exclusive of insects and parasites) with emphasis on Wisconsin species. Two hrs lec, two hrs lab per wk. Prereq: 101 or 160.
362/562. Animal Parasitology. 4 cr. Structure, classification, and life histories of animal parasites. Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
364/564. Protozoology. 4 cr. Biology of free-living and parasitic protozoa; systematics, morphology, morphogenesis, physiology, genetics and ecology. Two hrs lec, four hrs lab per week. Prereq: 160. A year of chemistry is highly desirable.
367/567. General Entomology. 4 cr. Structure, classification, and natural history of insects, with practice in collecting, mounting, and identification. Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
370/570. Comparative Vertebrate Anatomy. 4 cr . Structure and evolutionary relationships of vertebrates. Two hrs lec, four hrs lab per week. Prereq: 160.
371/571. Embryology. 4 cr. Early embryology of vertebrates and the development of organ systems. Two hrs lec, four hrs lab per week. Prereq: 160.
372/572. Biology of the Vertebrates. 4 cr. Classification, phylogeny, special adaptations, and natural history of the vertebrates. Two hrs lec, four hrs lab per week. Prereq: 160.

373/573. Histology. 4 cr . The microanatomy and related function of vertebrate (primarily mammalian) organs, tissues, and cells. Two hrs lec, four hrs lab per week. Prereq: 160 ; Chem 105 and 106, or 115 and 116. Biol 281 is strongly recommended but not required.
374/574. Ichthyology. 4 cr . Classification and natural history of fishes, with emphasis on food, game, and forage fishes found in Wisconsin. Two hrs lec, four hrs lab per week. Prereq: 101 or 160.
375/575. Life History and Population Dynamics of Fishes. 3 cr. Study and analysis of reproduction, recruitment, growth, mortality, survival, habitat, food production, and population
of fishes. Two hrs lec, three hrs lab per wk. Prereq: 374/574 and cons instr.

376/576. Herpetology. 3 cr. Reptiles and amphibians; research methods and identification of species found in North America. Two hrs lec, three hrs lab per week. Prereq: 101 or 160.

377/577. Ornithology. 3 cr . Avian taxonomy, morphology, life histories, ecology, and research methods, with emphasis on identification of orders of birds of the world, and of local species. Two hrs lec, three hrs lab per week. Prereq: 101 or 160.

378/578. Mammalogy. 3 cr. Taxonomy, zoogeography, life history, and ecology of mammals; field work. Two hrs lec, two hrs lab per week.

379/579. Field Zoology. 3 cr. Field trips; collection, preparation, and identification of animals. One hr lec, four hrs lab per week. Prereq: 101 or 160.

381/581. Comparative Animal Physiology. 4 cr. A comparative study of physiological adaptations of aquatic and terrestrial animals. Three hrs lec, three hrs lab per week. Prereq: 160 and Chem 106 or 116.

382/582. (Formerly 384/584) Endrocrinology of Mammals. 3 cr. Anatomy and physiology of major endocrine glands, primarily in mammals; hormonal control systems; biosynthesis, transport, and molecular actions of hormones; common endocrine diseases; current laboratory assay methods; current advances in hormone research. Prereq: 281 or 285 or 381; Chemistry 106 or 116; organic chemistry is recommended, but not required.

383/583. Human Reproduction. 3 cr. Developmental, physiological, and anatomical components of human reproduction. Prereq: 100 or 101 or 160 or cons instr.
The former 384/584 is now 382/582.
The former 385/585 is now offered as 384/584, 385/585, 386/ 586 , and $387 / 587$.

384/584. Animals and Environment. 1 cr. Morphological, physiological, and behavioral adaptations and responses to the physical environment. Prereq: 305 or cons instr.

385/585. Animal Feeding Ecology. 1 cr. Environmental and biotic influences on quantity and quality of foods; food selection and niche relationships. Prereq: 305 or cons instr.

386/586. Ecology of Reproduction in Vertebrates. 1 cr.
Roles of environment, nutrition, and social factors in breeding. production, and survival of young. Prereq: 305 or cons instr.

387/587. Field and Laboratory Studies in Animal Ecology. 1 cr. Practice in designing studies and collecting, analyzing, interpreting and reporting data; individual projects. One hr lab plus arr fid work per wk. Prereq: 305 or cons instr.

388/588. Animal Behavior. 3 cr . A comparative approach to the study of animal behavior; description, classification, analysis, and evolution of behavioral patterns of vertebrates, with emphasis on social behavior and underlying mechanisms. Two hrs lec, three hrs lab per week; individual term project. Prereq: 160.

399/599. Independent Studies. 1 or 2 cr . Upper-class students may arrange for advanced work (including field and
laboratory work where appropriate) not covered in regular courses. Categories of work include 1) Research, 2) Collection and Identification of Plants or Animals, 3) Advanced Readings, and 4) Biological Methods. Prereq: Consent of appropriate faculty member and of the chair.

405/605. Ecology of Predators and Prey. 3 cr. Discussion of selected readings on the biology and ecology of predators and their prey. Prereq: 205 or cons instr.

425/625. Problems in Quantitative Biology. 2 cr. Selected problems in quantitative biology and independent projects involving analysis of data obtained in the student's field of interest. One hr lec, three hrs lab per week. Prereq: 130 and 160; Math 120 recommended.

490/690. Seminar. 1 cr. Studies and discussions of biological problems.

498/698. Selected Topics in Biology. 1-3 cr. Major concepts in an area of biology. A subtitle will be added each time the course is offered. Distribution of lab and lec hrs will vary according to topic. May be repeated under different subtities. Prereq: Variable according to topic.
705. Advanced Ecology. 3 cr. Population and community ecology and measurements of the effect of environment on organisms. Two hrs lec, three hrs lab per week. Prereq: 205 or equiv.
710. Advanced Genetics. 4 cr . Genetic analysis of selected organisms; transmission, function, and mutation of genes; radiation and genes; quantitative inheritance and population genetics. Two hrs lec, four hrs lab per week. Prereq: 210 or equiv.
711. Physiological Mechanisms. 4 cr. Respiration, photosynthesis, nitrogen metabolism and pertinent metabolic pathways as related to current knowledge of cell structure and growth. Three hrs lec, two hrs lab per week. Prereq: 551 or cons instr.
726. Problem Analysis. 2 cr. A specialist will direct investigations of principles and mechanics within the area of his specialty. Lectures will alternate with reports from the participants. This course may be repeated as often as the topic area changes. Prereq: Cons instr.
728. Integrated Biological Concepts. 3 cr. Designed to integrate biology and relate it to other natural sciences, social sciences, and humanities by the exploration of major biological concepts. Includes laboratory and field work. Open to experienced teachers who have had an introductory course in biological science and who are not specializing in a biological science.
790. Graduate Seminar. 1 cr . Studies and discussions of biological problems.
796. Independent Study. 1 to 3 cr . Planned reading designed to enrich and supplement the student's preparation and mechanics within the area of his specialty. This course may be repeated as often as the topic changes. Prereq: Cons instr.
799. Thesis. 2 to 6 cr .

## BUSINESS AND ECONOMICS, Division of (College of Letters and Science)

Robert L. Taylor, Associate Dean of the College of Letters and Science and Head of the Division of Business and Economics.
Room 477, Collins Classroom Building.
Phone: (715) 346-2728.
The Division of Business and Economics offers programs in (1) Business Administration, (2) Business Education and Office Administration, (3) Economics, and (4) Managerial Accounting. They are described under those headings in the material which follows.

The courses offered by the Division are described under the following rubrics: (1) Accounting, (2) Business, (3) Business Education, (4) Economics, and (5) Office Administration.

## bUSINESS ADMINISTRATION; BUSINESS EDUCATION AND OFFICE ADMINISTRATION

Vance S. Gruetzmacher, Area Coordinator. Room 438, Collins Classroom Building. Phone: (715) 346-3360.

In order to declare a major or a minor in Business Administration, to be retained as a major or minor, and to be approved for graduation, a student must have a minimum 2.25 cumulative GPR in required courses (including collateral courses). This requirement applies to all courses taken within the major or minor regardless of any declaration of academic bankruptcy. Transfer students must have at least a 2.25 GPR in courses that apply to the major or minor.
A. A major in Business Administration requires 61 credits in the following categories:

1. Theoretical and conceptual requirements, 25 credits: Economics 200, 201; Accounting 210, 211; Business 380; Business Education 307 or English 250; Computer Science 101, 102; Mathematics 115-116, or 116-117, or 120.

Courses in the 100 series will normally be taken in the freshman year, and courses in the 200 series in the sophomore year. Upon completion of these requirements with a 2.25 cumulative GPR, the student may petition the Division to declare a major in Business Administration.
The remaining requirements will assume that the student has access to, and literacy with, a multi-function calculator for in-class exercises, homework assignments, and examinations involving financial analysis and statistics.
2. Functional Competence requirement, 21 credits: normally in the junior year - Busines 330, 351, 385 (WE); Economics 330 or Mathematics 352; and in the senior year - Business 317, 340; and Business 360 or Economics 453.
3. Four courses in ONE of the following areas of emphasis, 12 credits; note that in most areas, one course in each is required and is identified with an *:
(a) Finance: Business $352^{*}$, 353; Economics 311, 360, 365.
(b) Human Resource Management: Business $370^{*}$, 386, Economics 345, 346, Psychology 320 or Sociology 310 or Political Science 354; Psychology 345.
(c) Management: Business 386*, 387; Communication 340; Economics 315.
(d) Management Information Systems: Computer Science 113, 213, 230, 302, 319, 357.
(e) Marketing: Business $338^{*}$, 333, 336, 337, 431; Communication 330.
(f) Office Administration: Business Education 312*\#, 302, 303, 305, 306, 308, 309, 314. (Note: Business Education 307 is required, in this emphasis, in fulfillment of category 1, above.)
(g) Real Estate and Insurance: Business 341*, 343, 344, 345; Economics 323 or 372.
(h) Broad-Field Business: Any four of the courses marked with * above. \#(Office Administration 312)
4. Integrative Experience, three credits: Within the last 15 credits, the student must take one of the following: Business 400 (WE), or 496 (WE), or 497.
B. A minor in Business Administration requires 24 credits:

1. Required courses: Accounting 210, 211; Economics 200, 201; Business 380 (Dietetics majors may substitute 370).
2. Electives: A minimum of nine credits from Business 330**, 340, 351, 360, 370, 372, 385; Economics 330, 453; Computer Science 112. (**Business 333, 336, 337, and Economics 372 may be elected by Fashion Merchandising majors ONLY.)
C. A major in Business Education is offered in several categories:
3. The comprehensive major in Business Education requires 56 credits: Business Education 102, 103, 104, 301, 302, 305, 307, 312*, 314; Accounting 210, 211; Business 340, 380; Economics 200, 201, 330; Mathematics 115, 116; Computer Science 101, 102. Recommended electives: Business Education 303, 306, 308, 309; or Business or Economics or Computer Science courses.
4. The comprehensive major in Business Education Secretarial requires 56 credits: Business Education 102, 103, 104, 301, 302, 303, 305, 307, 312*, 314; Business 340, 380; Economics 200, 201, 330; Mathematics 115, 116; Computer Science 101, 102; remaining credits from Business Education 306, 308, 309, or Business or Economics or Computer Science courses.
5. The comprehensive major in Business Education - Accounting requires 56 credits: Business Education 102, 302, 303, 305, 307, 312*, 314; Accounting 210, 211, 310; Business 340, 380; Economics 200, 201, 330; Mathematics 115, 116; Computer Science 101, 102; remaining credits from Business Education 306, 308, 309, or Business or Economics or Computer Science courses.
6. The major in Business Education with a minor in a field outside of Business Education requires 52 credits: Business Education 102, 103, 104, 301, 302, 305, 307. $312^{*}, 314$; Accounting 210, 211; Business 340, 380; Economics 200, 201, 330; Mathematics 115, 116; Computer Science 101, 102; and completion of a minor in some other subject.
7. The major in Business Education with a minor in Business Administration requires completion of option 1, or 3, or 4, and three credits of Business 330, 351, 370, 381, 385, or Economics 453. - (Office Administration 312)
D. The emphasis in Office Administration is listed in paragraph 3. (f) in the description of the major in Business Administration, above.

## ECONOMICS

Lawrence A. Weiser, Area Coordinator.
Room 230C, Collins Classroom Building.
Phone: (715) 346-3310.
In order to declare a major or minor in Economics, to be retained as a major or minor, and to be approved for graduation, a student must have a minimum 2.25 cumulative GPR in required courses (including collateral courses). This requirement applies to all courses taken within the major or minor regardless of any declaration of academic bankruptcy. Transfer students must have at least a 2.25 GPR in courses that apply to the major or minor.
A. A major in Economics requires 40 credits in the following categories:

1. Theoretical and institutional requirements, 18 credits: Economics 200, 201, 350, 360, 361, 365.
2. Quantitative course requirements, 10 or 11 credits: Mathematics 115-116, or 116-117, or 120 (to be completed by the end of the sophomore year); Economics 330 or Mathematics 352; Economics 331 and 432 (WE), or 333.
3. Four courses in ONE of the following applied areas, at least three of which must be in Economics courses, 12 credits:
(a) Business Economics: Economics 315, 323 or 372, $333,345,453$; Accounting 211; Business 351, 380. (Students selecting the Business Economics area are strongly encouraged to take a concurrent minor in Business Administration.)
(b) Economic Policy: Economics 204 (WE), 311, 315, 328, 333, 362; Political Science 356, 358.
(c) Human Resource Economics: Economics 328, 333, 345, 346 (WE); Business 370; Political Science 354; Psychology 345; Sociology 260, 262.
(d) Global Economic Studies (two Economics courses are required): Economics 362, 367 (WE); Anthropology 360; Geography 368; Political Science 206, 280; Sociology 260, 370.
(e) Broad-Field Economics: One course from each of areas a, b, c, and d. (At least three must be Economics courses.)
Students majoring in Economics are advised to take the following courses as electives or as partial fulfiliment of the general requirements for a degree: Accounting 210, 211;

Computer Science 101, 102; History 320, 371, or 383; Philosophy 304.
Students who plan to pursue graduate work in Economics are advised to take Mathematics 120 and 121.
For students seeking teacher certification in Economics, a minimum of 34 credits must be in courses designated
"Economics." History 211 and 212 are recommended as electives or in partial fulfillment of the general requirements for a degree. An additional legislative requirement is Natural Resources 370.
B. A minor in Economics consists of 17 credits in Economics, including Economics 200, 201, and 330.
The minor for teacher certification requires 22 credits five in addition to those above. History 211 and 212 are recommended as electives or in partial fulfilment of the general requirements for a degree.

## MANAGERIAL ACCOUNTING

James P. Dunigan, Area Coordinator.
Room 471, Collins Classroom Building. Phone: (715) 346-3360.
In order to declare a major in Managerial Accounting, to be retained as a major, and to be approved for graduation, a student must have a minimum 2.50 cumulative GPR in required courses (including collateral courses). This requirement applies to all courses taken within the major regardless of any delcaration of academic bankruptcy. Transfer students with 56 or more credits must have at least a 2.50 GPR in the courses that apply to the major.
A. A major in Managerial Accounting consists of 64 credits in the following categories:

1. Required Basic Core courses, 30 credits: Accounting 210, 211; Business 317, 330, 340, 351, 380; Economics 200, 201, 330 or Mathematics 352.
2. Required support courses, 10 credits: English 250
(Business emphasis) or Business Education 307; Computer Science 101, 102; Mathematics 115-116 or 116117 or 120.
3. Required Accounting courses, 15 credits: Accounting 310, 311, 313, 320, 330.
4. Controlled electives, nine credits (three courses from the following): Accounting 312, 321, 331, 340, 410, 420; Business 341; Business 360 or Economics 453.

## Courses in Accounting

210. (Formerly Business 210) Introductory Financial Accounting. 3 cr . Principles, concepts, and procedures of financial accounting essential to the preparation, understanding, and interpretation of accounting information. Prereq: So st. (I, II)
211. (Formerly Business 211) Introductory Managerial Accounting. 3 cr . The decision-making process using managerial accounting information; cost-profit-volume analysis, cost accounting systems, budgeting, and performance evaluations. Prereq: 210 or cons instr. (I, II)
212. (Formerly Business 310) Intermedlate Accounting I. 3 cr. Concepts and procedures relating to cash, receivables, inventories, current liabilities, and fixed and intangible assets. Prereq: 211. (I, II)
213. (Formerly Business 315) Intermediate Accounting II. 3 cr. Concepts and procedures relating to long term liabilities, investments, stockholder's equity, pensions, leases, income tax allocation, accounting changes, and financial statement analysis. Prereq: 310. (II)
214. (Formerly Business 316) Advanced Accounting. 3 cr. Financial accounting applied to specialized fields including partnerships, home office and branch, mergers, consolidations, parent and subsidiaries; other specialized topics. Prereq: 311. (I)
215. (Formerly Business 318) Auditing. The auditing environment, the audit process, audit procedures and auditor's communications. Prereq: 310; Economics 330, and a course in data processing. (II)
216. (Formerly Business 311) Cost Accounting. 3 cr. Analysis of cost concepts for product costing, inventory valuation, and managerial planning and control; product costing systems including standard costs, cost allocation procedures including joint products. Prereq: 211. (I, II)
217. (Formerly Business 3.14) Advanced Cost Accounting. 3 cr. Principles and problems of cost accounting system design, organization for planning and control; application of operation's research techniques to production and inventory problems; capital budgeting and differential cost analysis. Prereq: 320. (I)
218. (Formerly Business 313) Income Tax Accounting I. 3 cr. Federal and Wisconsin income tax laws as applied to the preparation of the individual tax returns. Prereq: 211. (I, II)
219. Income Tax Accounting II. 3 cr. Federal income taxation as it applies to partnerships, corporations, estates, trusts, and gifts. Prereq: 330. (I, II)
220. (Formerly Business 312) Fund Accounting. 3 cr . Accounting for government and not-for-profit organizations; budgetary accounting, appropriations, and encumbrances. Prereq: 310. (I, odd yrs only)
221. Internship in Accounting. 3 cr. Supervised training work program in a cooperating off-campus or on-campus agency; work experience and supervision followed by an evaluation of individual progress. (I, II, SS)
222. Electronic Data Processing Auditing. 3 cr . The auditing function and impact of EDP on the auditor's role; implementation of controls in computer based information systems. Prereq: 313 and a course in data processing. (II) 420. (Formerly Business 319) Accounting Theory. 3 cr. Critical analysis of theory construction and verification of current and emerging theory; specialized topics in financial reporting as well as problem solving using different approaches to generally accepted accounting principles.
Prereq: 312. (II, odd yrs only)

## Courses in Business

100. Introduction to Business. 1 cr . Overview of business and enterprise; functional descriptions of accounting and finance, marketing, management, human resources, and issues of today' s business organizations. (I, II)
The former 210 is now Accounting 210.

| $\prime \prime$ | 211 | $"$ | $"$ | 211. |
| :--- | :--- | :--- | :--- | :--- |
| $"$ | 261 | $"$ | Business | 343. |
| $"$ | 310 | $"$ | Accounting 310. |  |

The former 311 is now Accounting 320.

| $"$ | 312 | $"$ | $"$ | 340. |
| :--- | :--- | :--- | :--- | :--- |
| $"$ | 313 | $"$ | $"$ | 330. |
| $"$ | 314 | $"$ | $"$ | 321. |
| $"$ | 315 | $"$ | $"$ | 311. |
| $"$ | 316 | $"$ | $"$ | 312. |

317. Management Information Systems. 3 cr. Principles and problems of systems design; identification, evaluation, and modification of information flows; organizational considerations; internal control procedures; systems for the operating functions of business; total information systems. Prereq: Computer Science 101, 102 (BASIC). (I, II)
The former 318 is now Accounting 313.
The former 319 is now Accounting 420.
The former 320 has been discontinued.
318. Marketing. 3 cr . Analysis of institutions, functions, and problems in marketing; planning and procedures related to the distribution of goods; costs, price determination, and trends. Prereq: Economics 201. (I, II)
319. Advertising Management. 3 cr . Strategic, managerial, creative, and financial issues in advertising; the business side of advertising: developing strategies, media, market orientation, and the creation of an advertising plan. Prereq: Business 300, Communication 330. (II)
320. Sales Management. 3 cr . The sales force and its role in the execution of marketing strategy in planning, organizing, and controlling the sales function. Prereq: 330. (I, II)
321. Buyer Behavior. 3 cr . Concepts from psychology, sociology, anthropology, and other behavioral disciplines, analyzed to develop the student's ability to understand and predict reactions of individuals and groups to marketing decisions. Prereq: 330. (I)
322. Marketing Management. 3 cr . The role of the marketing manager in business, with emphasis on decision-making and problem-solving activities. Prereq: 330. (I, II)
323. Business Law I. 3 cr. History of legal development, contracts, agency, sale of goods, insurance. (I, II)
324. Business Law II. 3 cr. Commercial paper, real estate and personal property, partnerships, corporations, bankruptcy. Prereq: 340 or cons instr: (II)
The former 342 is now 352.
325. (Formerly 261) Principles of Insurance. 3 cr . For the non-specialist; the history of insurance, basic definitions and terminology, the fields of insurance and types of carriers, the insurance contract, the planning and purchase of insurance.
326. Real Estate Principles: Law and Management. 3 cr. Real estate law as related to purchase and sale transactions, construction and development, and landlord-tenant relationships; survey of urban growth patterns, appraisal analysis, mortgage risk and real estate investment analysis. Prereq: 340 or cons instr. (I)
327. Real Estate Principles: Marketing Finance and Valuation. 3 cr . Principles of land use, construction, estimating a listing price, practical aspects of mortgage financing, real property management, real estate office procedures, advertising property for sale, service and responsibilities to clients, providing property information and disclosure, and
328. Economic Development. 3 cr . The stages of economic growth; study of economic conditions and policy in the underdeveloped and intermediately developed national economies, Prereq: 201. (I)
329. International Economics. 3 cr . Foreign trade, theory and measurement of export and import patterns; foreign exchange markets, balance of payments, tariffs, and the contemporary international monetary system. Prereq: 201. (I)

367/567. Comparative Economic Systems. 3 cr. Analysis and appraisal of the structure and function of diverse economic systems, such as capitalism, socialism, communism, and their modifications, Prereq: 200. (II)
372/572. Consumer Economics. 3 cr. Economics for the consumer, the art of consumer decision making, issues affecting consumer spending, saving, and investing; the role of cooperatives and other institutions concerned with consumer welfare. Credit may not be earned in both Economics 372 and Home Economics 372. (I)
381. History of Economic Thought. 3 cr . Economic thought from the mercantilists to recent writers. Prereq: 201. (II)
The former 430 has been discontinued.
432. Application of Research Methods. 1 cr . The student is required to complete a research project as proposed in Economics 331 after the proposal is approved by the instructor Prereq: 331. (I, II)
453. Managerial Economics. 3 cr . Application of price theory and economic theory of the firm to business management decisions; use of microeconomics and macroeconomics in forecasting for business policy. Prereq: 201, 330; Mathematics 115-116 or 118 or equiv. (1, 11)
499. Special Work. Upper-class students majoring or minoring in Economics may, by agreement with the Head of the Division, arrange for out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. (1, II, SS)
The former 704 has been discontinued.
756. Current Economic Problems. 3 cr. National and international economic policies in the light of commonly accepted social goals, such as efficient use of resources, stability of income and employment, equitable distribution of income, decentralization of power, personal security, freedom of choice, and peaceful and mutually beneficial international relations. (SS)
796. Special Work. Graduate students may, by agreement with the Head of the Division and their graduate adviser, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Prereq Cons area coordinator.

## Courses in Office Administration

107. Keyboarding. 1 cr. Development of a touch entry proficiency of 30 words per minute for a variety of electronic text/data entry devices, both display and non-display; applicable to microcomputer terminals, CRT data entry display stations, text processing keystations, computer console keyboards, and others. Not open to students who have had a course in typing. (I, II)
108. Office Management and Administration. 3 cr. Relationships of the office function to the business enterprise, including office location and layout, selection of office equipment supplies, principles of office organization; supervision of office personnel; office services; control of office output. Prereq: 101 or equiv. (I)


## CHEMICAL ENGINEERING

-arios $=$ re not 0
Several curricula for students planning to transfer to a course in Chemical Engineering have been approved by the faculty. For information, consult the chair of the Chemistry Department.

## CHEMISTRY <br> (College of Letters and Science)

Jack K. Reed, Chair.
Room D129, Science Building.
Phone: (715) 346-2888.
A. A major in Chemistry may be earned in either of two ways:

1. A minimum of 35 credits, including Chemistry 225 (see Note 1), 226, 228,248, 335, 336, 395, and 496; and at least eight credits chosen from 329,338, (2 cr), 346, $365,425,435,445,455,458,468,475$ including 338 (2 cr), or 346 or 445 .
Collateral requirements include Mathematics 120, 121, 222; Physics 150, 250 :
2. For those desiring professional certification by the American Chemical Society, a minimum of 42 credits, including Chemistry 225 (see Note 1), 226, 228, 248, $329,335,336,346,395,455$, and 496; and at least six credits chosen from $338(2 \mathrm{cr}), 399,425,435,445,458$, 475. (One chemistry course in this group must have laboratory work associated with it. One advanced course in another science or mathematics may be substituted for one of the chemistry courses in this group with the approval of the chair.)
Collateral requirements include Mathematics 120, 121, 222; Physics 150, 250. A reading knowledge of a for-
eign language, especially German, is strongly recommended.
B. A major in Chemistry for teacher certification consists of either major described above.
Students wishing to major in Chemistry must register for acceptance to the major through the Chemistry Department office no later than the first semester of the junior year.
A minimum grade point ratio of 2.00 in courses taken within the major ( A and B , above) is a requirement for acceptance of the student as a major at the start of his junior year. The minimum grade point ratio of 2.00 in courses in the major is also a requirement for the student's retention as a major during his junior and senior years and departmental approval of the major for graduation. These requirements apply regardless of a declaration of academic bankruptcy. Exceptions concerning academic bankruptcy may be granted by the department.
A maximum of one grade below C (a C - is a grade below C) in chemistry courses numbered 300 or above may be applied toward the major.
Students not meeting these standards may petition the chair of the department for consideration.
C. A minor in Chemistry consists of 23 credits, including Chemistry 225 (see Note 1), 226, 228, 248, and at least four additional credits selected from courses numbered 300 or over, but excluding 399.
Students wishing to minor in Chemistry must register for acceptance to the minor through the Chemistry Department office during the junior year.

A minimum grade point ratio of 2.00 in Chemistry courses is required for departmental approval of the minor, regardless of a declaration of academic bankruptcy. Exceptions concerning academic bankruptcy may be granted by the department.

## Notes:

1. For students majoring in chemistry the normal prerequisite for Chemistry 225 is Chemistry 115 and 116. With the consent of the chair of the department, 105 and 106 may be substituted for 115 and 116.
2. Several of the chemistry courses listed below are designed as service courses or for majors other than chemistry, and they do not count toward the chemistry major. In the case of such courses numbered 300 and over, the course description includes this restriction.
3. A grade of $F$ in certain freshman chemistry courses may be replaced by a subsequent grade in another freshman course as follows (See "Repetition of Courses" in the previous section of the catalog entitled ACADEMIC WORK.):
a. An F in Chemistry 115 can be replaced by a subsequent grade in 105. In special cases a D in Chemistry 115 can be replaced by a subsequent grade in 105 with prior authorization from the Student Assistance Center.
b. An F in Chemistry 105 can be replaced by a subsequent grade in 101.
4. A student shall not receive credit toward graduation for a course after having completed a more advanced or similar course in the same area. The following restrictions hold:

| A student who has <br> completed 105 | is not eligible |
| :---: | :---: |
| 115 | for 101 |
| 225 | $101,105^{*}, 106$ |
| 335 | 220 |
| 346 | 330 |
| 365 | 340 |
| 445 | 260 |
| * See note 3a. | 340 |

5. A student whose program requires one year of introductory chemistry with laboratory should take Chemistry 114 concurrently with 115.
6. Appreciation of Chemistry. 3 cr . Selected principles of chemistry, emphasizing the relation between chemistry and modern society. Two hrs lec, two hrs lab per week. This course will apply to part B of the Natural Science requirement for the Bachelor of Music or Bachelor of Science degree.

## Courses in Chemistry

101. Basic Chemistry. 5 cr. For students who desire only one semester of college chemistry. Introduction to atomic and molecular structure; bonding; stoichiometry; descriptive chemistry of both inorganic and organic compounds; selected topics in environmental and consumer chemistry. Three hrs lec, one hr disc, three hrs lab per wk. (See Notes 3 and 4.) (I, II)

103 has been discontinued.
104. Essentials of Chemistry. 2 cr . (Experimental 1981-83) (To help students with an inadequate background prepare for 105) Inorganic nomenclature, chemical calculations, acids, bases, oxidation, and reduction. Does not apply toward the natural science requirements for a degree. One hr lec, one hr disc per wk. Prereq: Mathematics 51 or placement in 100 or above.
105. Fundamental Chemistry. 5 cr. For students who desire one year of college chemistry. Fundamental principles and theories of chemistry; stoichiometry; nuclear chemistry; thermochemistry; atomic structure and bonding; descriptive chemistry of the nontransition metals. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: Mathematics 51 or placement in 100 or above. (See notes 1, 3, and 4.) (I, II)
106. Fundamental Chemistry. 5 cr. Continuation of 105. Equilibria; chemical kinetics; acids and bases; electrochemistry; thermodynamics; descriptive chemistry of nonmetals and transition metals; qualitative analysis; organic chemistry. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: 105. (See notes 1 and 4.) (I, II)
114. General Chemistry Laboratory. 1 cr. For students enrolled in 115 who desire introductory lab work; particularly for those with little or no lab experience. Three hrs lab per week. Prereq: Con reg in 115. (See Note 5.) (I, II)
115. General and Quantitative Chemistry. 4 cr . Laws and principles of chemistry; atomic structure, formulas, and equations, stoichiometry and chemical equilibria. Three hrs lec, one hr disc per week. Prereq: One year of high school chem; Mathematics 102 or placement in 106 or 108 or higher. High school courses must have a grade of $C$ or better to be accepted as prerequisites. (See Notes 1, 3, 4, and 5.) (I, II)
116. General and Quantitative Chemistry. 4 cr . A continuation of.115. Two hrs lec, one hr disc, three hrs lab per week. Prereq: 115. (See Note 1.) (1, II)
220. Survey of Organic Chemistry. 4 cr. A systematic survey of the compounds of carbon for students needing only one semester of organic chem. Three hrs lec, three hrs lab per week. Prereq: 106 or 116. (See Note 4.) (I, II)
225. Organic Chemistry. 3 cr . An integrated study of the compounds of carbon. Prereq: 116; or 106 and consent of the chair. (See Notes 1 and 4.) (I, II)
226. Organic Chemistry. 3 cr. A continuation of 225. Prereq: 225. (1, II)
228. Organic Chemistry Laboratory I. 2 cr. Preparation and analysis of organic compounds; introductory qualitative analysis. Six hours lab per week. Prereq: 226 or con reg. (I, II)
248. Quantitative Analysis. 3 cr . Theory and methods of quantitative chemical analysis. One hr lec, six hrs lab per wk. Prereq: 106 or 116. (I, II)
260. Elementary Biochemistry. 4 cr : Introduction to the structure and cellular reactions of the primary constituents of living cells; for students with limited preparation in organic chemistry. Three hrs lec, three hrs lab per wk. Prereq: 220; or 226 and 228. (See Note 4.) (II)
329. Organic Chemistry Laboratory II. 2 cr. Extension of 228. Six hrs lab per wk. Prereq: 226 and 228. (I, A)
330. Brief Course in Physical Chemistry. 3 cr. Introduction to physical chemistry with emphasis on the "classical" areas including kinetics, thermodynamics, and colloidal phenomena. For students wanting only one semester of physical chemistry; not to be counted toward the major in chemistry. Prereq: 220 or $\mathbf{2 2 8}, \mathbf{2 4 8}$, or con reg; Mathematics 117 or 222, or con reg in either; Physics 104 or 202 or 250 or con reg therein; or cons instr. (See Note 4.) (1)
$335 / 535$. Physical Chemistry. 3 cr . Atomic and molecular structure, thermodynamics, kinetics. Prereq: 226, and 395 or con reg; Mathematics 222; Physics 250; or cons instr. (1)
336/536. Physical Chemistry. 3 cr. Continuation of 335. Prereq: 335. (II)
338/538. Physical Chemistry Laboratory. 1 or 2 cr . Laboratory work illustrating the principles of physical chemistry. Three or six hrs per wk. Prereq: For one credit only: 248, 330 or 335 or con reg in either 330 or 335 ; for a second credit or for two credits: 248,336 or con reg in 336. If the course has been taken for one credit, it may be repeated for a total of two credits. (I, II)
340. Intermediate Analytical Chemistry. 4 cr. Theory and methods of chemical analysis including instrumental and separation techniques. Two hrs lec, six hrs lab per wk. Not to be counted toward the major in chemistry. Prereq: 220, or 226 or con reg; 248; Mathematics 117 or 120, or con reg in either; Physics 104 or 202 or 250, or con reg therein; or cons instr. (See Note 4.) (iI)
346/546. Instrumental Analysis. 4 cr. Instrumental methods of analysis including optical, electrical, and radiochemical methods. Two hrs lec, six hrs lab per wk. Prereq: 248; and 336 or con reg. (See Note 4.) (II)
$365 / 565$. Biochemistry. 4 cr . The chemistry of the components of living cells, and the nature and mechanism of cel-

Iular reactions. Three hrs lec, three hrs lab per week. Prereq: 226, 228, and 248. (See Note 4.) (1, II)
369. Topics in Physiological Chemistry. 2 cr. The chemistry of some human physiological processes with emphasis on topics related to clinical laboratory work. Not to be counted toward the major in chemistry. Prereq: 365; Biology 281. (II)
391. Seminar for Chemistry Majors in Teacher Education. 1 cr. Current topics in chemical education, chemical education literature, demonstrations, typical high school laboratory program, and textbook evaluations. Prereq: 226 and 228, or cons instr. (A)
395. Seminar I. 1 cr. The use of the chemical and scientific literature; introduction to the concept of the seminar; student participation in studies and discussions of current developments in chemistry. Prereq: 226. (I)
399. Special Work. Juniors and seniors majoring or minoring in Chemistry may, with the consent of the chair arrange for special research projects, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
425/625. Advanced Organic Chemistry. 3 cr. Theoretical and physical organic chemistry including reaction mechanisms, quantum mechanical applications, and advanced stereochemistry. Prereq: 336. (I, A)
435/635. Advanced Physical Chemistry. 3 cr. Advanced treatment of quantum chemistry, spectroscopy, statistical thermodynamics, kinetics. Prereq: 336. (A)
445/645. Advanced Analytical Chemistry. 3 cr . Theory and application of complex chemical equilibria and selected methods of analytical separations. One hr lec, six hrs lab per wk. Prereq: 248; and 336 or con reg. (See Note 4.) (1)
455/655. Advanced Inorganic Chemistry. 3 cr. Descriptive inorganic, periodicity of the elements, bonding theories, reaction mechanisms, acid-base theories; and coordination, bioinorganic, and nuclear chemistry. Prereq: 336 or con reg. (II, A)
458/658. Inorganic Chemistry Laboratory. 1 or 2 cr . Advanced preparative techniques; characterization of inorganic compounds, inorganic reaction kinetics; application of radioisotopes to chemical problems. Three or six hrs lab per wk. Prereq: 248; and 455 or con reg. If the course has been taken for one credit, it may be repeated for one additional credit. (II, A)
468/668. Experimental Biochemistry. 1 or 2 cr . Techniques used in the isolation, characterization, and study of reactions of biochemical compounds. Three or six hrs lab per wk. Prereq: 365. If the course has been taken for one credit, it may be repeated for one additional credit. (II, A)
475/675. Polymer Chemistry. 3 cr . Chemistry and physics of polymers, including synthesis, characterization, and mechanical properties. Two hrs lec, three hrs lab per wk. Prereq: 228, 248, and 336 or con reg. (ii)
492. Seminar for Chemistry Majors in Teacher Education. 1 cr. Continuation of 391. Prereq: 391 or cons instr. (A)
496/696. Seminar II. 1 cr . Student participation in studies and discussions of current developments in chemistry. Prereq: 336, 395; or cons instr. (II)
796. Independent Study. 1 to 4 cr . A subtitle will be added each time the course is offered.

# CHILD DEVELOPMENT 

See Early Childhood Education.

## CHINESE

Courses in Chinese are listed under FOREIGN LANGUAGES.

## COACHING

A minor in Coaching is offered in the School of Health, Physical Education, Recreation and Athletics. It is described under the heading Physical Education.

## COLLOQUIUM (College of Letters and Science)

The purpose of the Colloquium is to help students acquaint themselves with great ideas developed by mankind and to evaluate the theories and practices of the twentieth century in the light of human learning of the past three thousand years. It is a course for reading and discussion.
The separate courses need not be taken in numerical sequence. Each course includes books from the ancient to the current and is sufficiently flexible to provide for the needs and interests of the students who register.
Credit in these courses may, with the consent of the chair of the departments, be used to satisfy some of the requirements in the departments of History, Social Science, English, and Philosophy.
301, 302, 303, 304. Colloquium on Important Books. Each 2 or 3 cr . Group reading and discussion of some of the writings of eight different authors from the Greek era to the present. Prereq: Cons instr.

## COMMUNICATION <br> (College of Fine Arts)

Myrvin F. Christopherson, Chair. Room 215, Communication Arts Building. Phone: (715) 346-3409.
A. A major in Communication in the College of Fine Arts consists of a minimum of 32 credits in Communication courses, 17 of which must be in courses numbered 300 or above. The following courses are required: Communication 103, 207, 210, 211, 217, 305, and 319. Communication 101 may not be included among courses used to complete the major. Communication majors are advised to take 101 in special three-credit sections reserved for them.
B. A major in Communication for teacher certification consists of a minimum of 36 credits in Communication courses, 17 of which must be in courses numbered 300 or above. The following courses are required: Communication 103, 207, 210, 211, 217, 305, 317, 318, and 319. Communication 101 may not be included among courses used to complete the major. (This major satisfies certification requirements in the academic area designated Speech by the Wisconsin Department of Public Instruction.)
C. A minor in Communication in the College of Fine Arts consists of 21 credits including Communication 103, 207, 319; and one of the following: 210, 211, or 217.

Communication 101 may not be used to complete the minor.
D. A minor in Communication for teacher certification consists of 24 credits including Communication 103, 207, 317 or 318, 319; and one of the following: 210, 211, or 217. Communication 101 may not be used to complete the minor. (This minor satisfies the certification requirements in the academic area designated Speech by the Wisconsin Department of Public Instruction.)**
** The Professional Education Program is also required. It is described earlier in this catalog in the section titled College of Professional Studies.
NOTE: Department policy requires that all students majoring in communication must have an assigned adviser chosen from among the communication faculty, and must receive the adviser's approval of courses prior to registration each semester. New majors and minors should report to the department chair for assignment to an adviser.

## Courses in Communication

See also course listing under Communication Education (next section).
101. Fundamentals of Oral Communication. 2 or 3 cr . Introduction to and application of those principles which lead to an understanding of and facility with practical discourse.
103. Symbols and Communication. 3 cr . Perceiving, creating, and understanding symbols. Prereq: 101.
106. Organizational Leadership. 2 cr . Problems and procedures of organizational operation focusing on: parliamentary procedure; the management of meetings; leadership; methods of resolving problems common to campus, community, and related organizations. Primarily intended for leaders of campus organizations. See also Comm 306.
121. Evolution of Mass Media in America. 3 cr. The growth, regulations, and ramifications of communication media in this country.
125. Introduction to the Motion Picture. 3 cr. Survey of and appreciation for film; form and structure; representative types and styles illustrated by creators such as Hitchcock, Welles, Ford, and Eisenstein.
206. Communication Contexts. 3 cr . The ways in which communication shapes and is shaped by the context in which it occurs. Prereq: 103 or con reg.
207. Message Analysis and Design. 3 cr. The use, analysis, and design of messages and their communicative force. Prereq: 206 or cons instr.
210. Introduction to Mass Communication. 3 cr. Investigation of and experience with communication processes within the context of mass media and mass audience. Prereq: So st.
211. Introduction to Interpersonal Communication. 3 cr. Investigation of and experience with communication that facilitates the establishment and maintenance of effective personal relationships. Prereq: So st.
217. Introduction to Organizational Communication. 3 cr. Investigation of and experience with communication within institutionalized channels. Prereq: So st.
227. Basic Communication Laboratory. 3 cr . Introduction to communication practice, e.g. print, film, radio, TV, forensics; separate sections with subtitles to be specified at the
time of offering. May be repeated only under differing subtitles. Prereq: 101 or cons instr.
299. Special Work. Freshman and sophomore students majoring or minoring in Communication may, by agreement with the chair of the Communication Department, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Prereq: Cons chair.

300/500. Introduction to Communication Research. 3 cr. Types and principles of research in communication; emphasis on interpretation of various research studies and analysis of their implications for the communication field; practice in library and survey research.
301/501. News and Public Affairs. 3 cr. The informational forms of mass communication and factors which constrain these forms and their functions.
302/502. Popular Arts. 3 cr . The entertainment and promotional forms of mass communication and the factors constraining these forms and their function.
305. Man and Communication. 3 cr . The dominant cultural influences on human communication from pre-Socratic to contemporary times; emphasis on ethical dimensions.
306. Organizational Leadership. 2 cr. Same as Comm 106. Primarily intended for campus leaders in their junior and senior years. Appropriate requirements will be implemented to distinguish between the 100 and 300 levels. Students may not receive credit for both 106 and 306.
$\mathbf{3 1 1 / 5 1 1}$. Communication as Dialogue. 3 cr . Analysis of communication based directly and primarily on genuine regard for the other, as is found in close personal relationships. Prereq: 211.
312/512. Communication in Social Interaction. 3 cr, Analysis of conventionally shaped personal communication. Prereq: 211.

317/517. Directing High School Forensics and Debate. 3 cr .
318/518. Directing High School Mass Communication Activities. 3 cr . Problems and methods of supervising high school radio, TV, film, newspaper, and yearbook activities.
319. Art of Criticism. 3 cr . Introduction to the nature and practice of criticism as applied to communicative acts. Prereq: 207 or cons instr.
330/530. Promotional Communication Laboratory. 3 cr . Training in the methods used by individuals and institutions to relate to their respective publics, with variable focus on such topics as advertising, public relations, and image building. Focus will be specified each time the lab is offered. May be repeated for credit under a different focus. Prereq: cons instr.

331/531. Print Laboratory. 3 cr . Training in the forms of print communication with variable focus in writing, layout, and design. Focus will be specified each time the lab is scheduled. May be repeated for credit under a different focus. Prereq: cons instr.

332/532. Television Laboratory. 3 cr . Training in the forms of television communication with variable focus on writing, editing, producing, direction. Focus will be specified each time the lab is scheduled. May be repeated for credit under a different focus. Prereq: cons instr.

333/533. Radio Laboratory 3 cr . Training in the forms of radio communication with variable focus on writing, reporting, producing, directing. Focus will be specified each time the lab is scheduled. May be repeated for credit under a different focus. Prereq: cons instr.
334/534. Film Laboratory. 3 cr . Training in the forms of film communication with variable focus on writing, editing, producing, directing. Focus will be specified each time the lab is scheduled. May be repeated for credit under a different focus. Prereq: cons instr.
335. Speech-Making Laboratory. 3 cr . Training in speechmaking with emphasis on preparation, delivery, and evaluation. May be repeated. Prereq: 101.
336/536. Small-Group Laboratory. 3 cr. Training in small group communication processes with variable focus on such topics as leadership, problem solving. interviewing. and conflict resolution. Focus will be specified each time the lab is offered. May be repeated for credit under a different focus. Prereq: cons instr.
340/540. Organizational Communication Systems. 3 cr. Communication in established hierarchies; analysis of institutionalized codes, networks, and media; and the communication they commonly produce in business, industrial, and governmental organizations, Prereq: 217.
341/541. Organizational Communication and Social Change. 3 cr . Organizational communication involved with the promotion of social change; communication in such contexts as political movements, community action programs, dissent, and cross-cultural exchange. Prereq: 217
350/550. Media Law. 3 cr. Regulations, laws, conventions governing the mass communication media, with attention to principles common across media and unique to film, broadcast, or print industries.
352/552. Media History. 3 cr . In-depth investigation of the development of particular mass communication media; variable focus on print, broadcasting, or film; emphasis will be specified each time the course is offered. May be repeated for credit under a different focus.
365/565. Writing for the Media. 3 cr. Intensive preparation in writing and specific media contexts; news features, scientific reports, documentaries, and others. Focus will be specified each time the course is offered. May be repeated for credit under a different focus. Prereq: cons instr.

390/590. Seminar. 3 cr. Study and discussion of a new development, special problem, or area of interest in the field of communication. A subtitle will indicate the emphasis each time the course is offered. Prereq: cons instr.
392/592. Personal Communication Seminar. 3 cr. Possible topics: therapeutic communication, para-language, human relations, and crisis communication. Topics will be specified each time the seminar is offered. May be repeated. Prereq: 211, and 311 or 312; or cons instr.
393/593. Organizational Communication Seminar. 3 cr. Possible topics: lobbying practices, evaluation and training. conflict resolution, interorganizational relations, and organizational campaigns. Topic will be specified each time the seminar is offered. May be repeated. Prereq: 217, and 340 or 341, or cons instr.
395/595. Public Communication Seminar. 3 cr. Possible topics: international communication, mass media, mass culture, public opinion, and public address. Topic will be
specified each time the seminar is offered. May be repeated. Prereq: 210, and 301 or 302; or cons instr.
400/600. Communication and Natural Resources 3 cr . Research report writing for professional journals, technical writing for the general audience, and outdoor writing on such activities as hunting, fishing, and camping, with attention to media techniques and case studies. Prereq: cons instr.
480. Communication Internship. 1 to 8 cr . Supervised field experience with a cooperating agency in fields such as newspaper, radio and television journalism, public relations, advertising, travel, non-profit organizations, and student life activities; evaluation and review sessions with the faculty internship coordinator and agency supervisor; culminating paper. May be repeated once for a maximum of eight cr. Prereq: Sr st with 3.00 GPR; course work and/or student activity in area related to internship; or cons Intern Director.
490. Senior Seminar. 3 cr . Each student is required to select and research a topic in his area of interest, to submit his conclusions in writing and defend them orally before an invited panel. Prereq: Completion of the required core courses in the major, and recommendation of the adviser.
499. Special Work. Upper-class students majoring or minoring in Communication may, by agreement with the chair of the Communication Department, arrange for special out-of-class work, for which credit may be allowed on the basis of one for each week, or its equivalent, devoted exclusively to a special project.
700. Methods of Inquiry. 3 cr . Methodological approaches to communication research and study of assumptions operative in such pursuits; investigation of a particular area of study and development of a possible thesis/project prospectus. Prereq: 300.
701. Foundations of Communication. 3 cr . Examination of contemporary theories; the importance of perception, symbol, meaning, context, and mediation to a holistic understanding of the communication act; application to specific situations.
750. Creativity and Symbolism. 3 cr. Examination of symbols in communication; the relationship of symbols to meaning and creative expression; the formal conventions and properties of different media; practical application through projects for different media.
760. Perspectives in Communication Education. 3 cr. Current trends in communication education; alternative approaches to an integrative view of communication; development of individual courses and a coherent curriculum; relationship to general education objectives.
770. Communication and Organizational Management. 3 cr. Examination of the communication system as the structure of any organization; the relationship of communication systems to the identification and resolution of internal and external organizational problems through the communication and training processes.
780. Field Study in Professional Practices. 2 to 6 cr . Career development through participation within professional contexts; field study to analyze, evaluate, and report on actual communication programs in appropriate career areas, background readings and research application.
785. Administrative Communication: Educational Systems.

3 cr . Analysis of the communication demands on school administrators in addressing multiple publics (students, teachers, administrators, non-professional staff, and nonschool community); emphasis on the formulation of appropriate communication policies and their integration into an effective total system.
790. Seminar. 3 cr . In-depth study of a specific area of importance to communication scholars; topics to be specified each time the course is offered.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in his area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis/Project. 1 to 6 cr . The department considers "thesis" to include the option of completing an original artistic project.

## Course in Communication Education

380. Secondary School Methods: Philosophy and Practice. 3 cr . Development and implementation of the communication curriculum at the secondary school level.


## COMMUNICATIVE DISORDERS (College of Professional Studies)

William H. Meyer, Associate Dean of the College of Professional Studies and Head, School of Communicative Disorders.
Room 037, College of Professional Studies Building. Phone: (715) 346-3667.
A student majoring in Communicative Disorders has two options: (1) a major leading to educational certification, and (2) a major which does not lead to educational certification. No minor is available. Students will be advised by the school's coordinator of academic programs.
The following academic standards apply: (1) an overall GPR of 2.50 and an in-major GPR of 2.75 at the end of the sophomore year are required to continue in the major. (2) No course with a grade below C-can be counted toward
the major. (3) A student failing to meet either the overall or in-major GPR will be placed on probation in the major. The student must meet the above GPRs by the end of the probationary semester to continue in the major. Only one probationary semester will be allowed. (4) All courses taken in the major (including required courses in Psychology and Education) are used in determining the GPR, regardless of a declaration of academic bankruptcy. All exceptions must be approved by the school's academic programs committee upon petition by the student.
A. The program in Communicative Disorders which leads to teacher certification consists of courses from the undergraduate program in Communicative Disorders, of collateral courses in Psychology and Education, and of the Master of Science Degree - Communicative Disorders.
The following courses are required at the undergraduate level: Communicative Disorders ( 41 credits) 251, 260, 264, 266, 345, 351, 352, 360, 361, 366, 420, 425, 495; (2) Psychology ( 12 or 13 credits) 110, 260 (or Early Childhood Education 200), 300, 375; (3) Education (9 credits) 308 or 326, 351, 381; (4) Human Relations requirement ( 1 credit) Sociology 305 (may be waived for students with appropriate experience).
B. The major in Communicative Disorders which does not lead to educational certification includes the courses listed in paragraph $A$, above, under item (1) Communicative Disorders and under item (2) Psychology. The courses listed under Education and Human Relations are not required.
C. The Master of Science Degree - Communicative Disorders is described in the section of the catalog on the Graduate College.

## Remedial Speech and Hearing Service

Clinical therapy is available for students who have a speech, language, and/or hearing problem. Students in need of this remedial service may contact or be referred to the Center for Communicative Disorders for consultation, diagnosis, and/or therapy.

## Center for Communicative Disorders

College of Professional Studies Building.
Phone: (715) 346-3667.
The Center for Communicative Disorders provides students with a variety of services. It conducts testing of incoming students in order to identify problems of speech and hearing, and offers diagnostic and therapeutic services to university students. Students are encouraged to contact the center (weekdays from 7:45 a.m. to 4:30 p.m.) for personal assistance with their speech and/or hearing problems.

The diagnosis and treatment of speech and hearing difficulties are also extended to the people of Wisconsin. Some of the problems encountered in the center are stuttering, articulation defects, cerebral palsy, cleft palate, voice disorders, hearing problems, language disorders, and aphasia.

The services of the Center are accredited by the Professional Services Board of the American-Speech-LanguageHearing Association.

The Center, in conjunction with its educational program, provides practicum experience for students majoring in Communicative Disorders.

## Courses in Communicative Disorders

108. Introduction to Communicative Disorders. 3 cr. Overview of normal speech, language, and hearing processes; survey of disorders of communciation; and communicative disorders - the profession.
109 has been discontinued.
109. Hearing Science. 3 cr . Measurement of sound; anatomy and physiology of the hearing mechanism; perception of sound. Prereq: So st.
110. Basic Manual Communication. 2 cr. Instruction and practice in the presentation of English through the use of manual signs and fingerspelling. One hr lec, two hrs lab per wk. Prereq: So st.
111. Foundations of Education of the Hearing Impaired. 3 cr. History and philosophy of the education of the hearing impaired; psychological characteristics and social adaptation of deaf and hard-of-hearing populations. Prereq: So st.
112. Phonetics. 3 cr . Analysis of speech production utilizing the International Phonetic Alphabet; emphasis on transcription practice including normal and deviant articulation. Prereq: So st.
113. Anatomy and Physiology of Speech and Language Mechanisms. 3 cr: Gross anatomy and physiology of the articulatory, phonatory, and respiratory structures; landmarks of the central and peripheral neural mechanisms, and embryological derivation of the orofacial complex. Two hrs lec, two hrs lab per week. Prereq: So st.
114. Normal Development of Human Communicative Behavior. 3 or 4 cr . Normal development of speech perception and production, linguistic and cognitive skills ( 3 cr .). For Com Dis majors: required practicum with normal children ( 1 cr ). Prereq: So st.
280 has been discontinued.
295 has been discontinued.
345/545. Developmental Disorders of Articulation. 3 cr . Phonetic, phonemic, and phonological communcative disorders; emphasis on methods of assessment and management. Prereq: 251, 260, 264, 266.
$351 / 551$. Audiometry. 4 cr . Nature and measurement of hearing; audiometric procedures and review of specialized tests. Three hrs lec, two hrs lab per wk. Prereq: 251, 260, 264, 266.
352/552. Audiologic (Re)Habilitation. 3 cr . Methods and procedures used in programming for the hearing impaired in the visual, auditory, speech, and language problem areas. Prereq: 351.
353/553. Conversational Sign Language. 2 cr . Instruction and practice in the presentation of English through the use of manual signs and fingerspelling at an intermediate level; review of research pertaining to manual communication. Prereq: 252 or cons instr.
354/554. Alternate Communicative Systems. 3 cr. Nonspeech communicative systems.
115. Clinical Procedures I. 3 cr. Directed observation of clinical management, presentation of basic diagnostic in-
struments, interviewing techniques, and overviews of clinical report writing and therapy planning. Prereq: 251, 260, 264, 266.
116. Clinical Procedures II. 1 cr. Practicum, report writing, and therapy planning. Two hrs lab per wk. Prereq: 360.
365/565 has been discontinued.
117. Language Disorders. 4 cr . Nature, assessment, and management of language disorders in children. Prereq: 266.

395 has been discontinued.
407/607. Introduction to Speech and Hearing Science. 3 cr. Acoustic and physiologic parameters of speech production and perception, including laboratory assessment of these parameters. Two hrs lec, two hrs lab per wk.
420. Organic Disorders I. 3 cr. Fundamental characteristics of voice and resonance disorders, including programs for assessment and treatment.
421. Organic Disorders II. 3 cr. Fundamental characteristics of neuromotor speech disorders and acquired language disorders; emphasis on cerebral palsy and adult aphasia.
425. Theories of Stuttering. 3 cr . Analysis of the theoretical foundations for stuttering; current research.
430/630. Care-giver/Family Intervention: Procedures. 3 cr. Theories and patterns of interaction between clinicians and family units where communicative disorders are involved; initial contacts, information giving and receiving, termination of therapy, practice interview.

431/631. Care-giver/Family Intervention: Practicum. 1 cr. Practice in establishing an interaction pattern between the clinician and the family unit; direct contact with a family member and/or a family unit; supervised observations and video-taped critiques. Prereq: 430/630.
480/680 has been discontinued.
495. Clinical Practicum. 2 cr. Experience with management of articulation and language disorders for preschool or school aged client; speech and hearing screening and tests with children and/or university students. Must be repeated for a total of four credits. Prereq: 361.
499. Special Work. Upper-class students majoring in Communicative Disorders may, by agreement with the Head of the School of Communicative Disorders, arrange for special out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
710. Research Methods. 3 cr . Scientific method, design and statistical techniques used in speech and hearing research; emphasis on evaluating current literature.
711. Clinical Instrumentation. 3 cr . Clinical use of measuring and recording instruments; theory of operation of various instruments, their application, and criteria used in their selection. Two hrs lec, two hrs lab per wk. Prereq: 731 or 737.
713. Instrumentation. 2 cr . Basic acoustics, electronics, and use of electroacoustical equipment.
714. Oral Peripheral and Motor Speech Examination. 1 cr. Discussion and laboratory experience in examination of the structure and function of the oral mechanism.

715, 716. Gross Anatomy of the Head and Neck I and II. 2 cr. each. Dissections of the head and neck in reference to structural relationships of the mechanisms for human communication.
721. Auditory and Vestibular Systems. 2 cr. Anatomy, physiology and neurology of auditory and vestibular functions. Prereq: cons instr.
722. Theories of Hearing. 3 cr . Psychological, acoustic, and bioacoustic aspects of hearing. Prereq: cons instr.
724. Stuttering in Children. 3 cr . Analysis of the development of stuttering; programs for child, parent, and school; emphasis on preschool through junior high.
725. Stuttering in Adults. 3 cr . Development of stuttering with analysis of remediation programs.
729. Neurophysical Bases of Speech and Language. 3 cr. Functional anatomy of central and peripheral neural mechanisms mediating sensory and motor aspects of speech and language.
730. Neuropathologies of Speech I. 3 cr. Impact of neuromotor and neurosensory deficits of cerebral palsy on speech and language development; theories and procedures for evaluation and habilitation; emphasis on the neurodevelopmental approach. Prereq: 729.
731. Neuropathologies of Speech II. 3 cr. Major types of acquired dysarthrias and appraxia of speech; description, assessment, and management. Prereq: 729.
732. Language Theories. 3 cr . Language acquisition from a variety of theoretical viewpoints: behavioral, transforma-tional-generative, cognitive-linguistic, and pragmatic orientations.
733. Language Therapy for the Adolescent. 3 cr . Respective assessment and therapy goals, materials, and methods for fostering the development of communication skills of adolescents with language disorder.
734. Language Therapy for Select Populations. 3 cr. Respective assessment and therapy goals; and programs for fostering the development of communicative skills of children with mental retardation, autism, and cultural language variation.
735. Disorders of Phonation. 3 cr . Advanced study of functional and organic voice disorders; assessment and management procedures for children and adults; alaryngeal speech management for the laryngectomized.
736. Advanced Study in Language Learning Disorders. 3 cr. Characteristics of language acquisition used to define language disorders; assessment and treatment.
737. Maxillofacial Disorders. 3 cr . Evaluation and management of communication disorders associated with maxillofacial anomalies; emphasis on interdisciplinary team approach.
740. Aphasia and Related Disorders. 3 cr. Advanced study of acquired language disorders of adults; evaluation, differential diagnosis, and management procedures. Prereq: 729.
745. Disorders of Phonology. 3 cr. Advanced study of the etiology, assessment, and management of deviant phonological systems of children and adults.
749. Total Communication. 3 cr . Theory, rationale, and the research pertaining to total communication; performance skills in the total communication approach. Prereq: cons instr.
751. Measurement of Hearing. 2 cr lec, 1 cr lab. Theory in the assessment of auditory function, site of lesion testing. including impedance audiometry; interpretation of audiometric results for medical, educational, communicative, and legal purposes; practicum. Prereq: cons instr.
752. Seminar in Hearing Measurement. 3 cr. Advanced study of site of lesion testing, interpretation, and practice. Prereq: 751 and cons instr.
753. Special Audiological Procedures. 2 cr . Audiometric techniques used with pediatric, geriatric, and difficult-totest clients. Prereq: 751 and cons instr.
754. Audiology Practicum. 1 cr. Assigned clinical experience in the Center for Communicative Disorders. Prereq: 751 and cons instr.
755. Pathologies of the Auditory Vestibular Systems. 2 cr. Comprehensive study of auditory and vestibular systems disorders. Prereq: 721 and cons instr.
757. Advanced Practicum. Assigned experiences in the audiology clinic. Prereq: 752, 760, and cons instr.
760. Amplification. 2 cr. Hearing aid measurement, selection procedures, and hearing aid orientation. One hr lec, two hrs lab per wk. Prereq: 713 and cons instr.
762. Audiologic Habilitation. 2 cr. Programs, techniques, and counseling used with hearing impaired children. Prereq: cons instr.
763. Audiologic Rehabilitation. 2 cr. Programs and techniques employed with hearing impaired adults. Prereq: cons instr.
766. Problems of the Deaf and Hearing Impaired. 2 cr. Contemporary problems and an analysis of the research pertaining to the deaf and hearing impaired. Prereq: cons instr.
767. Diagnosis of the Nonverbal Child. 3 cr. Evaluation procedures including task analysis, cognitive-linguistic development, and performance parameters.
768. Counseling in Communicative Disorders. 3 cr. Professional role, theories, strategies, and objectives relative to counseling the communicatively impaired client.
769. Supervision. 3 cr . Supervisory theories, styles, problems, behavioral analysis instruments, emphasizing the clinical model.
770. Management in the Education Setting. 3 cr . Methods, materials, and administration of communicative disorder programs in educational settings; special attention to state and federal legislation as it relates to school speech/language programs.
771. Speech Pathology Services in Noneducational Settings. 3 cr . Organization and administratrion of speech/language programs, including philosophy, budget, staff, caseload, recordkeeping, and referral procedures.
780. Communicative Disorders in Children. 3 cr . Etiology, identification, and management of the child; designed primarily for teachers and school administrators. Not open to majors in Communicative Disorders.
781. Seminar in Audiology. 3 cr . Advanced study of amplification, ENG, EEG, and other selected areas. Prereq: cons instr.
782. Administrative Aspects of Communicative Disorders. 3 cr. Administration, legal aspects of case management, supervision. Prereq: cons instr.
783. Computer Utilization. 3 cr. History of logic systems in audiology, speech, and language; contemporary application of microcomputers in these fields; introduction to terminal usage and BASIC language programming. Two hrs lec, two hrs lab per wk.
790. Externship. 6 cr . A 13 -wk assignment to a community. medical, or educational setting. Prereq: Completion of academic requirements and consent of audiology staff.
792. Special Project in Audiology. 3 cr. Review of the literature or a research project resulting in a presentation to the faculty, staff, and students.
793. Graduate Practicum I. 1 cr. Experience in management of articulation and language disorders for preschool, school age, or university students in the University Clinic.
794. Graduate Practicum II. 2 cr. Experience, evaluation, and management of speech, language, and/or hearing rehabilitation of cases in the University Clinic and at selected external sites.
795. Clinical Semester. $10-15 \mathrm{cr}$. Extended clinical assignment on a full-time basis outside the University Clinic in schools, hospitals, or clinics. Prereq: Completion of three enrollments in Graduate Practicum.
796. Independent Study. $1-3 \mathrm{cr}$. Prereq: cons instr.
797. Workshop. 3-6 cr. Individual and/or group projects designed to expand the course content of the graduate program. May be repeated for credit as the course content changes.
799. Thesis. 2-6 credits.

## COMPARATIVE LITERATURE (College of Letters and Science)

The minor in Comparative Literature is administered by the department of Foreign Languages.
Room 490, Collins Classroom Building.
Phone: (715) 346-3036.
A minor in Comparative Literature consists of the following:

1. Comparative Literature 101 and 102 -six credits.
2. Six credits in advanced literature courses in which the student must do the reading in a language other than his native language.
3. Comparative Literature 399.
4. Additional courses in Comparative Literature and English to total 21 credits, as follows:
a. At least 12 credits in Comparative Literature courses.
b. Additional credits selected from English 310, 312, 319, 361, 362, 372, 380.

## Courses in Comparative Literature

101. Masterpieces of the Western World. 3 cr. A comparative study of themes and literary traditions in the literature of the Western World from Homer to Montaigne.
102. Masterpieces of the Western World. 3 cr. A comparative study of themes and literary traditions in the literature of the Western World from Milton to Mann.
103. Survey of Dramatic Literature: Tragedy. 3 cr. A comparative study of the styles, theories, and traditions of tragedy in the literature of the world; emphasis on the classic heritage. Prereq: cons instr.
104. Survey of Dramatic Literature: Comedy. 3 cr . A comparative study of the styles, theories, and traditions of comedy in the literature of the world. Prereq: So st or cons instr.
105. Literature of the Bible. 3 cr . A comparative analysis of the Bible as literature. Prereq: So st.
106. Asian Literature. 3 cr . A comparative analysis of selected readings in narrative, dramatic, philosophic, and lyric literature of China, India, and Japan. Prereq: So st.
107. The Fiction of Asia. 3 cr . A comparative study of selected themes and forms in Oriental fiction. Prereq: So st.
108. The Drama of Asia. 3 cr . A comparative study of selected works of Oriental drama. Prereq: So st.
109. The Poetry of Asia. 3 cr . A comparative analysis of selected poetry of India, China, and Japan.' Prereq: So st.
110. Classical Poetry. 3 cr. A comparative analysis of selected readings from the poetry of Homer, Sappho, Pindar, Anacreon, Theocritus, Lucretius, Catullus, Virgil, and Horace.
111. Classical Prose. 3 cr. A comparative analysis of selected reading from the prose of Plato, Aristotle, Livy, Cicero, Plutarch,'Tacitus, Petronius, Seutonius, and Marcus Aurelius.
112. Medieval Literature in Translation. 3 cr. A comparative analysis of selected readings from English, French, German, and Spanish medieval literature: epics, lyric poetry, and drama. The area of concentration will be specified each time the course is offered.
113. Literature of the Renaissance. 3 cr . A comparative analysis of selections from the works of such writers as Pe trach, Erasmus, Castiglione, Machiavelli, Rabelais, Cellini, Montaigne, and Cervantes.
114. The Novel before 1850. 3 cr . A comparative analysis of selections from the works of such writers as Cervantes, Lyly, Nash, Voltaire, Goethe, Hoffmàn, Balzac, Stendahl, Gogol, and Mansoni, with major emphasis on evolution of form and theme.
115. Literature and the Arts. 3 cr . A comparative study of literature and its relationship to one or more art forms (film, sculpture, painting, music, etc.) to determine esthetic purpose and the relationships between them. The course will have a subtitle each time it is offered.
350/550. Special Problems. 2 or 3 cr . Special focus on one of the following: a non-English writer; a comparative study of two writers; a literary group or genre; the relationship between literature and other arts; a recurrent theme in literature. A subtitle indicating the focus will be added each time the course is offered; any needed foreign language preparation will be indicated. Prereq: Language preparation by the student for the problem to be handled.
116. Special Work. Upper-class students minoring in Comparative Literature may, by agreement with their adviser,
arrange for special out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
Prereq: cons instr, and approval of the chair of the department of Foreign Languages.

## COMPUTER SCIENCE (College of Letters and Science)

Daniel V. Goulet, Coordinator of Instructional Computing. Room D-356, Science Building.
Phone: (715) 346-2120.
Courses, and the minor in Computer Science are administered by the department of Mathematics and Computer Science.
Computer Science is a rapidly expanding and changing discipline. As a result, courses and program requirements change frequently. The University has also requested approval of a major in Computer Information Systems. Up-todate information may be obtained from the department office.
A minor in Computer Science consists of 21 credits including 110, 112 or $113,230,240$, and 302. The remaining courses, at least one of which must be at the 300 level, will be selected from other computer science courses, Business 317, and Mathematics 360 . The general mathematics requirement for a degree must be completed before attempting any 300 level computer science course.
A minor in Computer Science for Secondary Teacher Certification consists of 24 credits including 101, 102, 110, 112 or 113, 230, 240, two 300 level courses, and Computer Science Education 334. Mathematics 360 may be included. The general mathematics requirement for a degree must be completed before attempting any 300 level computer science course.

## Courses in Computer Science

100. Elementary BASIC Programming. 1 cr . Introduction to terminal use and BASIC programming; use of stored programs and applications from various areas. Offered on PASS-FAIL only. Not applicable to the minor in Computer Science.
101. Introduction to Computing. 3 cr. Survey, history, hardware, applications, social implications, the future of computing. Concurrent registrātion in 102 is required.
The former 102 is now 112.
102. Practicum in Computing. 1 cr. A subtitle will be added for each section offered. May be repeated for credit under different subtitles. Prereq: 101 or con reg.
The former 103 is now 113.
103. Introduction to Algorithm Development and Computer Programming. 3 cr . Problem solving, algorithm development, and computer programming in the microcomputer environment using the block structured language Pascal: how to design, code, debug, and document programs using structured programming techniques and good programming style.
104. (Formerly 102) Introduction to FORTRAN Programming. 3 cr . Problem solving, algorithm development, and computer programming in a mainframe environment using
the scientific programming language FORTRAN 77; how to design, code, debug, and document programs using structured programming techniques and good programming style. Prereq: Mathematics 100 or equiv.
105. (Formerly 103) Introduction to COBOL Programming. 3 cr. Problem solving, algorithm development, and computer programming in a mainframe environment using the business programming language COBOL; how to design, code, debug, and document programs using structured programming techniques and good programming style.
The former 202 is now 212.
The former 203 is now 213.
106. (Formerly 202) Advanced FORTRAN Programming. 3 cr. Designing, writing, testing, and documenting larger FORTRAN 77 programs requiring the use of sequential and random access data files; individual and team projects.
Prereq: 112 or equivalent experience as determined by the Coordinator of Instructional Computing.
107. (Formerly 203) Advanced COBOL Programming. 3 cr. Designing, writing, testing, and documenting of larger COBOL programs requiring the use of sequential, indexed, and random access data files; individual and team projects. Prereq: 113 or equivalent experience as determined by the Coordinator of Instructional Computing.
108. Computer Organization and Assembly Language. 3 cr. Thorough working knowledge of microcomputer systems: basic computer architecture, instruction, and data representations, addressing, operations, program linkage, input/ output, interrupts, traps, and assembly language programming. Prereq: 110.
109. Large Systems Program Control and Linkage. 3 cr. Thorough working knowledge of large computer systems: semantic structure of programming languages; work flow language (WFL) as related to compilation, linkage, and executive processes; load module maintenance; utilities; file creation, access, and processing as applied to common I/O media; Command Edit Language (CANDE). Prereq: 110, and 112 or 113.
110. Data Structures. 3 cr . Basic structures used for representing information and techniques for operation upon these data structures: arrays, stacks, queues and dequeues, general linear lists, trees, graphs, symbol tables, and multi-linked structures. Prereq: 240.
111. Operating Systems. 3 cr . Batch processing, real-time and time-sharing systems, resource allocation, memory management, performance measurement, and system evaluation. Prereq: 230.
112. Introduction to System Design. 3 cr. Theory of systems; study of activities considered during development and implementation of systems projects; selected projects to emphasize the breadth of system design and analysis. Prereq: One 200-level course.
319 Data Base Design. 3 cr. Information entry, storage, and retrieval; hardware parameters, programming considerations, file organizations, and their use in contemporary data base systems. Prereq: 212 or 213.
113. Artificial Intelligence. 3 cr . General strategies and analysis of contemporary work in pattern recognition, game playing, theorem proving, and general problem solving. Prereq: One 200 -level Computer Science course.
114. Simulation and Modeling. 3 cr . Types and construction of models; simulations of models, random number generation, design of simulation experiments, feasibility of implementation and model validation, and selected applications. Prereq: 110 or 112 or 113, and an introductory course in statistics.
390/590. Special Topics in Computer Science. 3 cr. Topic will be announced in the timetable. Prereq: Consent of the chair of the Mathematics department.
115. Special Work. Upper-class students in Computer Science may, by agreement with the chair of the department, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.

## Course in Computer Science Education

334. Techniques in Secondary Education: Computer Sci-
ence. 2 cr . Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in high school teaching.

## COOPERATIVE EDUCATION

Stephanie Bullis, Coordinator. Room 134, Main Building. Phone: (715) 346-3136.
The Cooperative Education program is open to all students from freshman to senior year who devote one to five fulltime semesters or summer sessions in full-time training experiences in work related to their academic major or career goals.
Co-op students are required to register for those periods, but they receive no academic credit. Registration means that a record of the work experience will be entered on the permanent record of participating students.

## Courses in Cooperative Education

1. First Work Period. 0 cr. Prereq: Approval by the Coordinator's office and by the chair of the student's major department; acceptance by the employing organization.
2. Second Work Period. 0 cr. Prereq: Satisfactory completion of 001; approval by the Coordinator's office and by the chair of the student's major department; acceptance by the employing organization.
3. Third Work Period. 0 cr. Prereq: Satisfactory completion of 002; approval by the Coordinator's office and by the chair of the student's major department; acceptance by the employing organization.
4. Fourth Work Period. 0 cr. Prereq: Satisfactory completion of 003; approval by the Coordinator's office and by the chair of the student's major department; acceptance by the employing organization.
5. Fifth Work Period. 0 cr. Prereq: Satisfactory completion of 004; approval by the Coordinator's office and by the chair of the student's major department; acceptance by the employing organization.

## DANCE

See Theatre Arts.

## DRAMA

See Theatre Arts.

## EARLY CHILDHOOD EDUCATION

The major in Early Childhood Education is offered in the School of Home Economics and is described under HOME ECONOMICS later in this catalog.

## EARTH SCIENCE (College of Letters and Science)

Room D-332, Science Building.
Phone: (715) 346-2629.

The minor in Earth Science is administered by the Department of Geography and Geology and consists of twenty-two credits:

1. Geography 101 and Geology 101.
2. At least one course from each of the following groups:
a. Geography 352, 353, 354.
b. Geology 200, 201, 339, 340, 370, 380.
c. Sufficient additional credits from groups a. and b., above, and from Geography 375, 378, 395 or Geology 395 to total 22 credits.

EAST CENTRAL EUROPEAN STUDIES
See Russian and East Central European Studies.

\#Indicates that admission to the Professional Education Program or to the School of Education is a prerequisite for the course.

## EDUCATION (College of Professional Studies)

Russell L. Oliver, Associate Dean of the College of Professional Studies and Head, School of Education. Room 440, College of Professional Studies Building. Phone: (715) 346-2040.
The major in Early Childhood Education is described under that heading.
See also course listings under Art Education, Business Education, Communication Education, Communicative Disorders Education, Computer Science Education, Dance Education, Drama Education, Early Childhood Education, English Education, Foreign Language Education, Home Economics Education, Instructional Resources, Mathematics Education, and Music Education.
All course descriptions are general; content, field trips, and resources may vary according to advances in the discipline, availability and accessibility of resources, and the needs of the students in each course and section.

## Courses in Education

100. Introduction to Education. 2 cr . Exploring education and teaching in contemporary society, including new approaches and innovations, and futuristic trends; lectures, seminars, and field experience. Open to all students. Required for concurrent or subsequent admission to the Professional Education Program.
101. Creative Activities for Young Children. 3 cr . The philosophy and role of the creative activities (music, drama, dance, literature, and art) in early childhood-kindergarten education. Emphasis on the creative activity as it relates to developmental stages. At least one hr lab per week. Prereq: So st.
\#301. Techniques in Kindergarten Education. 3 cr. Comparative study of kindergarten philosophies and curricula; study of materials, techniques, and resources appropriate for all areas of kindergarten education. Observations required. Prereq: Admission to the professional education program.
\#304. Techniques in Language Arts in the Elementary and Middle Schools. 3 cr. Principles, aims, methods, and techniques of teaching English with attention to grammar and usage, handwriting, spelling, listening, speaking, and writing.
\#308. Developmental Reading in Elementary and Middle School. 3 cr . Materials and methods of instruction in the field of reading; readings, basic instructional approaches, research, and readiness in the field of reading instruction.
102. Techniques for Intermediate and Upper Grades: Mathematics, Social Studies, Science. 4 cr . Principles, aims, methods, and techniques. Three hrs lec; observation and lab hrs to be arranged.
**312/512. Workshop in Education: Multi-Unit SchoolsIGE. 2 or 3 cr . Analysis of multi-unit schools, team teaching, and individually guided education; theory and practice;

[^4]major focus on development of multi-unit schools in Wisconsin.
*313/513. The Individually Guided Education Multi-Unit School. 3 cr . Introduction to the comprehensive system of planning and organization in the individually guided education, multi-unit school, including the individually guided. programming model, rationale for decision making, formulating terminal and enroute behaviors; an overview of the multi-unit organization and implementation; team building procedures, roles, and responsibilities, and teacher-advisee concept.
320. Techniques in the Elementary School: Guidance. 3 cr. Policies and practices of organized guidance in the elementary school; personal, social, and educational adjustment problems and needs. Prereq: 383 and teaching experience.
321. Techniques in the Elementary School: Speech. 3 cr. Methods, materials and philosophy for the teaching of speech in the elementary school; curricular correlation.
\#**324. Techniques in the Elementary School: Social Studles. 2 cr. Principles, aims, methods, techniques, and field experiences. Two hrs lec, two add'l hrs to be arr per wk.
\#*325. Techniques in the Elementary School: Science. 2 cr. Principles, aims, methods, techniques, and field experiences. Two hrs lec, two add'l hrs to be arr per wk.
326. Corrective Reading. 3 cr. Preventive and corrective measures in the teaching of reading in grades one through eight; diagnosis of causes and the application of corrective techniques. Prereq: 308 or cons instr.
327/527. Teaching Reading to Gifted and Talented Students. 3 cr . Procedures and materials for teaching reading to gifted and talented learners in grades K through 12; development by students of appropriate teaching materials, based on current research. Prereq: 308, or 386, or cons instr.
\#330. Techniques in Secondary Education - Accounting. 2 cr. Aims, methods, materials, techniques, planning organization, testing, etc., as applied in high school teaching.
\#335. Techniques in Secondary Education - Mathematics. 2 cr. (See description under 330.)
\#337. Techniques in Secondary Education - Science. 3 cr. Aims, methods, materials, techniques, planning, programs, organization, testing, and field experiences.
\#338. Techniques in Secondary Education - Shorthand and Typing. 2 cr . (See description under 330.)
\#339. Techniques in Secondary Education - Social Studies. 3 cr . (See description under 337.)
350/550. Organization and Administration of Outdoor Education. 3 cr . Objectives, scope, and administrative aspects of outdoor education in the curriculum, including the role of school forests, day camps, school gardens, community resources, and other outdoor educational techniques.
*351/551. The Exceptional Child. 3 cr . An introduction to characteristics of children with exceptional educational needs; designed to aid students in recognizing and inter-
\#indicates that admission to the Professional Education Program or to the School of Education is a prerequisite for the course.
preting the significant developmental deviations of handicapped and gifted children. Prereq: Psychology 110.
352/552. Workshop in Mental Health. 4 cr. For classroom teachers interested in improving their teaching skills through a better understanding of the role of good mental health in the learning situation; the areas covered will include learning theory, mental health education, emotional growth, and special school and community services for the emotionally handicapped.
$* 353 / 553$. Nature and Needs of Children with Learning Disabilities. 3 cr . Major emphasis and points of view in theory and practice concerning the identification and remediation of children with learning disabilities. Prereq: 351 or con reg or cons instr.

## **354/554. Mainstreaming the Exceptional Student. 3 cr.

Principles, procedures, and methods in mainstreaming the student with exceptional needs into the regular classroom. Prereq: 351/551 or cons instr.
355/555. Methods of Teaching Children with Exceptional Educational Needs. 1 or 2 cr. Knowledge of methods of teaching students with EEN in the regular classroom; classroom observation and participation. Prereq: 351/551.
360/560. Workshop in Elementary Education. 2, 3, or 4 cr. Problems of teaching in various curricular fields in the elementary school. A subtitie will be added to describe the area considered each time the course is offered.
361/561. Identification and Use of Community Resources. 2 or 3 cr . Identifying resources available in any community, including people, places, natural and man-made materials; assessing their potential use for instructional purposes; designing lessons and activities for their utilization both in and outside of the classroom. For 3 cr the course will include a media component based upon effective resource utilization. Prereq: Instructional Resources 331 or cons instr for 3 cr .
*336/563. Assessment Procedures for Children with Exceptional Educational Needs. 3 cr . Theory and practice in assessment of children with exceptional educational needs and in interpretation of significant findings for planning individual educational programs. Prereq: $351 / 551$ or cons instr.
**364/564. Methods and Materials for Children with Special
Learning Disabilities. 3 cr . Instructional techniques and strategies in the area of individual instruction of the learn-ing-disabled child, adolescent, and young adult, including a practicum where skills are refined. A subtitle will be added to designate the specific area treated. (Sec I- elementary; Sec 2 - secondary). Prereq: 351/551, or cons instr.
365/565. Methods in Teaching Young Children with Exceptional Educational Needs. 3 cr . An analytical approach that emphasizes adapting methods and materials to individual educational programs; implementation and evaluation of the programs.
366/566. Introduction, Identification, and Assessment of Young Exceptional Children. 3 cr. Characteristics and needs; procedures in screening and assessment of young exceptional children. Prereq: 351/551.

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367/567. Educational Programming for Young Exceptional Children. 3 cr . Curriculum, organization, and administration of programs for young exceptional children. Prereq: 366/ 566 , or cons instr.
368/568. Career and Vocational Education for Exceptional Children. 3 cr. Procedures and methods in assessing needs, adapting curriculum, and providing career programs for students with exceptional educational needs. Prereq: 351/551, or cons instr.
370-373/570-573. Workshop in Education. 1 to 3 cr. Problems of teaching in the elementary and secondary schools. A subtitle will be added each time the course is offered. Prerequisites may be stated for each subtitle.

## 371/571. Aerospace.

372/572. Techniques of Outdoor Education. 3 cr. Materials, methods, planning, and curricular development as applied to outdoor education, including practicum experiences. Prereq: 350/550 or con reg.
**374/574. Workshop in Education: Group Dynamics Within the Secondary School. 2 or 3 cr . Group dynamics and leadership skills within small and large classes; theory and techniques in promoting optimal involvement and learning; major focus on the comparison of teacher roles within large and small groups.
380. Principles of Education. 2 cr. History and philosophy of public education and their effect on the role of the school in our society; the relationship, of the teacher to the pupil, the school, the community and the profession. Prereq: 100 or con reg.
\#**381. Educational Psychology. 3 cr. Psychological bases of educational procedures and practices; the educational implications of the characteristics of physical and mental growth, emotional behavior, motivation, learning, individual differences, and human relations; an integrating course taken concurrently with student teaching. Prereq: Psych 110.
382. Philosophy of Education. 3 cr. Educational philosophies underlying the various methods of teaching and of organizing subject matter; the relation of political and social philosophies to national systems of education, to different plans of school, organization, and to various types of schools.
**383/583. Tests and Measurements. 3 cr. A brief history of the testing movement; functions of tests, methods by which they are applied, scored, and results tabulated; construction of objective tests and improvements of teacher-made tests.
384/584. Computers, Systems, and Education. 3 cr. Effects of computers, systems analysis and system science on educational method, and on school organization, administration, and curriculum; introduction to computer-assisted instruction; educational simulation; limitations of computer oriented methods of instruction.
385/585. Teaching the Early Adolescent: 3 cr. Characteristics of early adolescents and instructional strategies appropriate to their needs.
\#Indicates that admission to the Professional Education Program or to the School of Education is a prerequisite for the course.

386/586. Reading in the Secondary School. 3 cr. Materials and techniques of teaching developmental reading in the secondary school.

387/587. Corrective Reading in the Secondary School. 3 cr. Procedures for analysis and correction of students' reading problems for the teacher in the subject-matter areas. Prereq: 386.
**388/588. Interpersonal Relations. 3 cr . The developmental effects of different types of relationships between students and teachers, the relationship between types of interactions and student self concept, and methods of improving interpersonal relations.

389/589. Issues in Vocational and Technical Education. 2 or 3 cr . The administration and organization of vocational and adult education on the national, state, and local level.

390/590. Seminar. 1 to 3 cr . Studies and discussions of current problems in education. A subtitle will be added when specific areas are treated.
**391. Teaching Minorities in the Classroom. 3 cr. Minority groups in respect to differences in race, color, religion, economics, ethnic background, or sex, aimed at improving self-concept, social position, and success in school. (When only one group is studied, it will be identified in a subtitle.) May be repeated once, with a different focus, for a total of six credits.

394/594. Alternative Education. 1 or 2 cr. Forms of alternative schools, innovative educational programs, and nontraditional approaches currently used in school systems and private schools. Prereq: Admission to the School of Education or certification as a teacher. (Undergrad $1 \mathbf{c r}$, orientation; 2 cr , development of a proposal. Grad 1 cr, in-depth investigation of one form currently in operation; 2 cr , onsite visitation and proposal for change.)
\#**398. Student Teaching. Credit as arranged. Observation and teaching under the guidance of cooperating teachers; emphasis on guided teaching experiences in actual classroom situations. A subtitle will be added to the title to indicate the field in which the student teaching was done.
399. Special Work. Upper-class students in the School of Education may, by agreement with the Associate Dean of the School of Education, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
701. Philosophical Foundations of Education. 3 cr. Critical issues in education; their ideological and social bases. Prereq: Teacher certification or cons instr.
**702. Psychological Foundations of Education. 3 cr. Ps ${ }^{*}$ chological background relative to human abilities and behavior; individual differences; human relations; learning and evaluation with implications for teaching. Prereq: teacher certification, enrollment in MAT program or cons instr.
*703. Theories of Learning. 3 cr . Classical and contemporary theories of learning; critical analysis of learning theories with implications for classroom learning situations.
705. Basic Statistical Methods in Education. 3 cr. Fundamentals of statistical analysis with application in education and other fields according to needs of students; critical ratios and the test for paired, pooled, and unpooled samples; straight line and curvilinear regression for simple and multiple correlation of variables; introduction to the use of probability, simple and two-way analysis, chi square, and other non-parametric statistics. Prereq: 383/583, or 751; and cons instr.
706. Experimental and Statistical Methods in Education Research. 3 cr . Applicability, limitation of experimental method in education; simplified probability, classical, Bayesian, parametric and non-parametric statistics; use of calculator and computers; experimental designs; literature reviews.
711. Seminar: Problems in Teaching, Elementary. 3 cr . Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigation. Open to elementary school teachers with certification.
712. Seminar: Problems in Teaching, Secondary. 3 cr. Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigations; open to experienced secondary school teachers with certification.
713. Seminar: Problems in Teaching, Music. 4 cr . Definition of problems and issues, critical examination of the research literature, review of trends in curricula and methods, and planning of experimental investigation; open to experienced music teachers with certification.
715. M.E.P.D. Seminar. 1 cr . Focus on educational research, resources, and final option requirements; required of all M.E.P.D. candidates.
716. The M.E.P.D. Product. 1 to 3 cr . A demonstration of professional expertise which requires approval by the advising committee; final option for M.E.P.D.
720. Research Studies in Elementary Education. 3 cr. A survey of research in reading, science, social studies, language arts, math, music, art, administration, policy development and curriculum organization.
*721. Fundamentals of Curriculum. 3 cr. Fundamental ideas in developing curriculum; emphasis on the human aspects in curriculum design.
*722. Elemientary School Curriculum. 3 cr. Basic concept of curriculum; the relationship of foundation areas to the problems of curriculum development; modern trends in developing educational programs for children.
"731. Mathematics in the Elementary School. 2 or 3 cr. The teaching of modern arithmetic with emphasis on curricdlum content as well as method.
*732. Language Arts in the Elementary School. 3 cr. A survey and critical appraisal of programs, basic practices and trends; emphasis on oral and written expression including spelling and handwriting: specific study of individual problems.
*733. Sclence in the Elementary School. 3 cr. A survey of

- the philosophy and nature of a science, new elementary science curricula, innovative and experimental programs in elementary school science, and research in science education in the elementary school.
*734. Social Studies in the Elementary Schools. 3 cr. Curriculum trends and approaches; new content, materials, innovations; and needed research in the field.

735. Leadership in Curriculum Change. 3 cr . Study of specific curriculums, including instructional strategies and models of instruction, and the development of leadership skills in the development, implementation, and supervision of the specific curriculum(s).
*736. Individually Guided Motivation. 2 or 3 cr. Principles and procedures within the design system of Individually Guided Motivation (IGM), including rationale, implementation, and development of the following motivational procedures: (a) adult-child conference principles and procedures to encourage independent reading; (b) goal setting in subject areas; (c) guidelines and criteria for effective training of tutors; (d) teacher-group conferences, developing guidelines and implementation procedures for value clarification. Third credit will provide clinical experiences with children in the above four areas.
*737. IGE: Instructional Programming. 3 cr . Review of the instructional programming component; writing criterion referenced objectives; development of instructional activity in varying levels of the taxonomy; teacher resource files; instructional modules; IGE assessment instruments.
*738. IGE: Leadership Roles and Responsibilities. 1 cr. Interpreting and synthesizing IGE roles and responsibilities necessary for effective performance of the multi-unit school, in the following elective modules:
(a) The IGE Principal: Administrative changes and responsibilities as the principal relates to the learning community. the program improvement council, the system wide policy committee, the league of cooperating schools, the state and national IGE organizations.
(b) IGE Learning Community: Identification of skills and role perception of the learning community, teacher and learning community, leader; "We agree" sessions, team building skills, consensus decision making, inter- and intraorganizational communication, cooperative planning. and assessment procedures.
(c) IGE Intern/Student Teacher: Roles and responsibilities required for effective performance in the learning community team; how to plan, implement, and assess learnings in the IGE school.
(d) IGE Aide: Analysis of the role of the aide, practitioneroriented toward improving understanding and performance with the learning community.
(e) IGE: Middle School/Junior High Development: Review of the research data and development models for the application of IGE processes and structures.
(f) IGE: Secondary School Development: Review of the research data and developmental models for the application of IGE processes and structures.
**741. Improvement in Reading. 3 cr. The various trends and programs in developmental reading, the reading curriculum and the related research. Prereq: 308.
**746. Diagnosis and Evaluation of Reading Abilities. 3 cr . Formal and informal evaluation instruments in reading; course experiences in testing to identify remedial readers, construction of a diagnostic profile, and written interpretations of test results. Prereq: 308, 741.
**747. Remedial Reading. 3 cr . Materials and techniques of remedial reading; for classroom teachers, reading specialists, and administrators of reading programs who are responsible for instruction, curriculum development and leadership in this area. Prereq: 308, 741, 746.
**748. Remedial Reading Practicum. 3 cr. Clinical appraisal of remedial reading problems, interpretation of the findings, and the development and execution of corrective measures. During the instruction of a remedial reader each student will conduct continuous analysis and evaluation leading to a final report describing the nature of the reader, the techniques and materials used for reading improvement, and with recommendations for post-clinical reading instruction. Prereq: 308, 741, 746, 747.
**749. Seminar in Reading. 3 cr . The nature and treatment of problems in reading instruction. Prereq: cons instr.
**750. Supervision and Administration of Reading Programs. 3 cr. Organization, administration, supervision, and improvement of school wide reading programs. Prereq: cons instr.
736. Advanced Tests and Measurements. 2 or 3 cr . Testing batteries and systems, factor analytic studies, regression prediction, traditional and modern theories, educational change.
737. School Law for the Teacher. 3 cr . The impact of statute and court decisions upon teachers. The effect upon student rights, discipline, tort liability, financing, private and religious education and equal opportunity.
738. Values Clarification. 3 cr . Methods for formulating, clarifying, and evaluating beliefs and attitudes toward others and ourselves as we relate to others; understanding of how we determine what is important to us as individuals in a diverse society.
**756. Guidance in the Elementary Schools. 3 cr. Instruments and techniques used in guidance such as observation, concepts of individual appraisal, and methods in group procedures.
**758. Education for Cooperative Teachers. 3 cr . The student teaching program as one phase of the total undergraduate education program, with emphasis upon orienting student teachers and guiding them in planning, teaching, and evaluating learning activities; for in-service teachers who are or wish to be cooperating teachers.
**760. M.A.T. Seminar: Secondary. 3 cr. Reflection, analysis, hypothesizing, synthesis and evaluation of concurrent experiences, dynamics of teaching-learning process, and professional behavior; related research; designs for possible research; curriculum modification; restricted to students in MAT program.
**763. Secondary Instruction I. Methodology and Techniques. 3 cr. Instructional strategies; multi-media materials and approaches; classroom management. Prereq: Acceptance in the MAT program or cons instr.
**764. Secondary Instruction II. Special Problems and Materials. 3 cr . Methods, and materials in area of specialization. Prereq: Acceptance in the MAT program or cons instr.
**765. Professional Experience: Secondary. 8 cr . Student is assigned to a selected team of at least two teachers, a school administrator, and a member of the University Graduate Faculty, for teaching in the area of specialization and related experiences; restricted to students in the MAT program.
**770. The Adviser's Function-Student Activities Program. 1 cr . The role of student activities with particular emphasis on the function of the adviser.
739. Supervision of Instruction. 3 cr . A study of evolving concepts and strategies of supervision in schools; supervision as an essential function for curriculum development and the improvement of instruction; the role of supervision in facilitating educational change, giving it direction and increasing its effectiveness. Training in and appligation of systematic observation and data analysis systems.
740. Identification and Assessment of Young Exceptional Children. 3 cr . Development of skills in identification and assessment procedures in specifying needs and structuring program objectives for young exceptional children.
741. Administrative and Curricular Programming for Young Exceptional Children. 2 cr . Planning, developing, administering, and evaluating curricular and instructional programs for young exceptional children.
742. Methods and Materials in Teaching Young Exceptional Children. 3 cr . Instructional methods and strategies designed to teach and habilitate young exceptional children.
743. Parents, Home, and Staff Involvement in Educating Exceptional Children. 2 cr . Procedures in preparation/counseling of parents and staff; practice in involving home and other agencies in total programming for education of exceptional children.
744. Field Experience in Exceptional Education. 1 to 4 cr . Observation and participation experience related to developing the competencies/skills in exceptional education courses. A subtitle designating the specific area will be added to the student's record.
745. Curriculum and Education Programming in Special Learning Disabilities. 3 cr . Instructional methods and processes of instructing learning-disabled students explored, attempted, and evaluated, including a practicum where these skills are researched. Prereq: 563 and SLD candidacy.
746. Practicum in Teaching Exceptional Children. 4 or 8 cr . Professional practice in teaching children with exceptional needs. A subtitle designating the specific area will be added to the student's record.
747. Seminar: Problems in Exceptional Education. 3 cr . Basic issues, critical reading, and critique of current re-

[^6]search, research design, current trends and methodology, and writing of a seminar paper in exceptional education.
790. Analysis and Improvement of Educational Programs. 1 to 3 cr . Topic and number of credits will be announced when the course is offered. Designed for in-service needs of school districts. Prereq: Teaching experience.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the students' preparation in his area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis. 2 to 6 cr .

## ENGLISH

## (College of Letters and Science)

David G. Holborn, Chair (-83).
E. Stephen Odden, Chair designate (83-).

Room 486, Collins Classroom Building.
Phone: (715) 346-4757.
A. A major in English consists of 32 credits beyond Freshman English, including English 200 and electives from the specified categories under E.1., below; 18 credits inneoursernumbered 300 and above must be included. Theedepartment has two types of majors: a general major and one for those preparing to teach at the secondary school level. Requirements for teacher certification are outlined under E.2., below.
B. A,minor in English consists of 24 credits beyond Freshman English, including English 200 and electives from the specified categories under E.1., below; 12 credits in courses numbered 300 and above must be included. Requirements for teacher certification are outlined under E.2., below.
C. A minor in Writing consists of $\mathbf{2 4}$ credits beyond Freshman English, including English 200 and electives from the categories specified below; 12 credits in courses numbered 300 and above must be included.
Writing, 12 to 15 credits: English 250, 253, 254, 350, $351,353,354,498$ (up to 3 cr ). Up to six credits in writing courses from other departments may be approved by the chair. No more than six credits of such courses and English 498 may count toward the Writing Minor.
Language, three credits: English 240, 342, 344, 346.
Literature, three to six credits: English 103 to 170; 203 to 214,280 to $336 ; 360$ to $370 ; 378,380,382,383,385$.
D. A major in English with a minor in Writing requires 48 credits beyond Freshman English, including the specific requirements for the "general" major or the "teaching" major (See " $A$ " above), as well as the speciffic requirements for the Writing minor (see "C" above). Fifteen credits of writing courses must be included.

## NOTES:

(1) English 345, 355, 375, and 381 count toward the major/minor in English or the minor in Writing only for

- those seeking teacher certification, or for those who need them as collateral requirements in other departments.
(2) English 274 and 275 will not count toward the major or minor unless the student demonstrates a need for them as a collateral requirement, such as for a minor
in library science or a major in elementary education. They do not count foward the humanities requirement.
(3) An English major or minor must have a cumulative grade point ratio of 2.00 in the major/minor including prescribed collateral courses, in order to be eligible for departmental approval to graduate with the major/ minor. The cumulative grade point ratio is based on the student's total academic record in English, disregarding a declaration of "academic bankruptcy."
(4) University regulations permit a sophomore to take a course at the 300 -level with the approval of the chair of the department. Courses at the 200 -level are open to English majors as second semester freshmen.
(5) It is recommended that English 200 be taken as early as possible in an English major's or minor's or writing minor's career.
(6) Up to three credits of English 498 may be used to satisfy the English major requirement, and the English, Writing, and Technical Writing minors.
E.1. The major and minor in English require, in addition to English 200, electives from the following: (Note that some courses count in more than one category.)
Language, three credits: English 240, 342, 344, 346.
Survey of British and American Literature, twelve credits, to be evenly distributed between British and American literature: English 211, 212, 213, 214. (Any upper division "period course" covering the same period may be substituted.
Masters, six credits: English 330, 333, 334, 336, 385.
Unspecified electives: courses listed above or other English offerings, except as noted; or comparative literature. (Comparative Literature courses may be used if they are judged to be consistent with the aims of the department; consent must be obtained from the chairperson of the department prior to registration.)
E.2. The major and minor in English for teacher certification require in addition to E.1. above:
Writing, three credits: English 250, 253, 254, 350, 351, 353, or 355 . (English 354 will not fulfill this requirement.)
The following courses are recommended: English 345, 355, 375, 381. For those preparing to teach, English 345 may substitute for the required language course under C.1. and E.1. English 355 may count as a writing course under C.1., and English 375 as literature under C. 1.


## NOTES FOR PROSPECTIVE SECONDARY SCHOOL TEACHER:

1) A reading course is required for teacher certification. English 381 fulfills this requirement and is highly recommended for prospective teachers of English.
(2) The minor in Writing is not a certifiable teaching minor, but one which public school employers generally favor as a complement to the English major. Other complementary minors are: a foreign language, communication, theatre arts.
(3) The School of Education requires a grade point ratio of at least 2.50 in the major and minor fields for admission to student teaching, and 2.75 for internship.

The requirements for teacher certification in English as a second language are in the section on Foreign Languages in a later section of this catalog.
See also course listing under Courses in English education (next section).
The English Department administers a minor in Technical Writing which is listed under that title later in this catalog.

## English Assessment and Placement Procedure

All entering freshmen take the freshman English entrance assessment. This is an assessment of writing competence based on an essay written by the student at the University during the student's attendance at an Orientation-Registration session. According to competence demonstrated in the assessment essay, students are placed in one of three categories:

1. English 050. A developmental English course required of students whose placement test scores indicate a need for practice in fundamental language skills. Upon successful completion, students will normally enroll in English 101.
2. English 101. The first course in the required freshman English sequence. The emphasis in this course is on the improvement of skills in critical reading, logical reasoning, and effective writing. Upon successful completion, students will normally enroll in English 102.
3. Exempted. Students whose performance on the writing assessment indicates superior writing ability may be exempt from the first semester of freshman English. Students so placed who complete the second semester of freshman English (English 102) with a grade of "B" or better shall be given 3 credits retroactively for English 101, as well as the 3 credits for English 102.
4. Developmental English. 3 cr . Required of students whose placement test scores indicate a need for practice in fundamental language skills. Three hrs lec per wk; additional lab work may be arranged. Pass-fail ONLY; course may be repeated until successfully completed; credits do not count toward a degree. Upon successful completion, students will normally enroll in English 101.

## Courses in English

57. Independent Writing. 1 cr . Pass-Fail only. Individualized program for writing improvement for English 050 students, taught in conjunction with the Writing Laboratory. Credits do NOT count toward a degree. May be repeated as often as needed. Students who place in English 050 may not enroll in English 157/257/357 until they have successfully completed English 050.
58. Freshman English. 3 cr. Improvement of skills in critical reading, logical reasoning, and effective writing; selected readings in fiction and non-fiction. Prereq: 050, or satisfactory placement test scores.
59. Freshman English. 3 cr . Development of language skills through complex reading and writing assignments, including the effective handling of long papers. Prereq: 101.

[^7]103. The Myth of . . . 1-3 cr. (The topic will be announced for each offering.) The origin and development of a particular myth as it is embodied in folk tales and/or drama, film, novels (e.g. the myth of the Great Lover, the Doctor, the Jew, the Politician). Only 3 cr . of 103/203/303 may be applied toward the major or minor.
108. Reading the Drama. 1-3 cr. Oral reading and discussion of one play a week from the body of dramatic literature. The plays read will be chosen by the class. One three-hour meeting per week. May be taken for credit twice: once each as 108 and as 308. (See 308.)
142. Basic English Grammar. 3 cr. Practice in identifying and using the structural features of written and spoken standard English. Does not count toward the English major or minor.
157. Independent Writing. 1 cr. (Pass-Fail ONLY) An individualized program for writing improvement based on student needs and personal objectives, taught in conjunction with the Writing Laboratory. May be repeated twice, for a maximum of three cr among 157, 257, 357. (See statement under 057.)
160. The Sympathetic Imagination. 1-3 cr. How fundamental human issues are illuminated through imagiriatave centiy into the lives of others as depicted in the works efsele authors. Not open to juniors and seniors except with cons instr.
170. Folklore. 1-3 cr. Introduction to folklore in its literary forms with reference to the ballad, the folk tale, andifdik sayings.
*200. Introduction to the Study of Literature. 3 cr . A study of literature, emphasizing the development of the student's critical vocabulary, recognition of the various forms of liter-ature, and rudimentary analysis of selected wórks.
*203. The Myth of . . . 1-3 cr. (The topic will be announced for each offering.) See description under 103.
*211. English Literature. (Br) 3 cr . Selections from English literature with emphasis on the major writers from Beowulf through Pre-Romantics, stressing insight into the works.
*212. English Literature. (Br) 3 cr . Selections from English literature with emphasis on the major writers from the Romantics to the present, stressing insight inta the works.
*213. American Literature. (Am) 3 cr . Selections;from American literature with emphasis on the major, writers from Emerson through Twain, stressing insight into the works.
*214. American Literature. (Am) 3 cr . Selections from American literature with emphasis on the major writers from James to the present, stressing insight into the works.
*240. Introduction to Linguistics. 3 cr . Fundamental concepts and methods of the scientific study of languages in their structural, historical and geographical aspects.
*250. Expository Writing. 2 or 3 cr . Practice in descriptive, narrative, analysis, and persuasion, including report writing. Prereq: Successful completion of Freshman English, or cons chair. (Some sections may have a particular empha-
sis, which will be listed in the timetable; e.g., "Business Emphasis.")
*253. Introduction to Creative Writing. $1-3 \mathrm{cr}$. Training and practice for the beginning writer in the various forms of poetry and fiction; class discussion of student work.
*254. Editing and Publishing. 3 cr . Writing, editing, and preparing materials for publication, including consideration of reader/editor appeal, ways to market manuscripts.
*257. Independent Writing. $1 \mathbf{c r}$. (Pass-Fail ONLY) Same description as for 157.
*274. Literature for Early Childhood. 3 cr . Emphasis on the reading, selection, and presentation of materials suitable for the preschool child. (See note 2 above.)
-275. Children's Literature. 3 cr . Literature for children, with emphasis upon the reading, selection, and presentation of materials suitable for the various grades in an elementary school. (See note 2 above.)
*280. American Indian Literature. (Am) 1 -3 cr. Literature about the American Indian from oral and written materials by Indian authors, and from materials by other American writese ni nolfiaugr 0
The'fupifer 28i2?(Contemporary Literature) has been discontinued.
*282, Black Literature. 1 to 3 cr . A critical study of works by blaokowriters,(e.g., Americans, Africans, West Indians).
The fofmer 281, 284, 286, and 287 have been consolidated in 289.
*283. Mythoígy in Literature. $1-3 \mathrm{cr}$. The basic mythos of creation, the flood, man's fall, the Olympians and their Roman counterparts, and the stories of myth and history which form the basis of the literary expression of Western culture; emphasis on the Graeco-Roman, Judeo-Christian, and Norse myths, as they appear in selected poetry, novels, and plays.
285. Women in Literature. 3 cr . Virgin, seductress, madonna, whore, lover, castrator, frail vessel, wonder woman, the other half; the second sex: who is she-Woman?; an examination of the literature to determine how women are depicted in Western cultural tradition, how images of women havedeveloped and been perpetuated, and how they shape a woman's sense of who she is and a man's idea of what she should be.
*288. The Literature of Human Love and Sexuality. 1-3 cr. The literature of love, using such representative works and author's from various cultures and times as Lysistrata, the Song of Solomon, Ovid, Chaucer, Donne, Swift, DeSade, D.H. Lawrence, and James Joyce.
${ }^{* 289 .}$ Popular Literature. 1 to 3 cr . Selected topics (e.g., Frontier Literature, Sports Literature, Speculative fiction, Mystery Literature) from literature with a general appeal, with emphasis on a close reading of the texts. A subtitle will be specified each time the course is offered; may be taken for credit more than once under different subtitles.
303. The Myth of . . . 1-3 cr. (The topic will be announced for each offering.) See description under 103.
308. Reading the Drama. $1-3 \mathrm{cr}$. Same as 108, offered for students eligible for courses numbered 300 or above. May be taken for credit twice: once each as 108 and as 308.
309. Forms and Modes in Literature. 1-3 cr. Selected works of several writers as examples of a form or mode, to be determined by special interest of the faculty member offering the course. A subtitle indicating the form or mode (e.g. The Parable in Modern Literature) will be added each time the course is offered. May be repeated under different subtities.
310. The Modern Short Story. 1-3 cr. Representative short stories of world literature with emphasis on literary structure, form and theme.

311/511. The English Novel. (Br) 3 cr. English novels from (a) early 1700's to 1880, including works from such authors as Defoe, Fielding, Sterne, Austen, Dickens, and George Eliot; or (b) $\mathbf{1 8 8 0}$ to World War II-Hardy, Joyce, Conrad, Lawrence, and Woolf. May be taken once for each period.
312/512. Modern Drama. 2 or 3 cr. Representative dramas of world literature from Ibsen to the present; emphasis on literary structure, form, and theme.
313/513. The American Novel. (Am) 3 cr. American novels from (a) late 1700's to 1900 including works from such authors as Hawthorne, Melville, James, and Twain; or (b) 1900 to World War II-Crane, Dreiser, Hemingway, Fitzgerald, and Faulkner. May be taken once for each period.
314/514. Modern Poetry. 2 or 3 cr . The study of 20th century poetry beginning with the works of Yeats, Pound, and Eliot.
319/519. The Novel Since 1850. 3 cr. Representative novels of world literature with emphasis on literary structure, form, and theme, including works from a variety of cultures.
323/523. British Literature Before 1790, Excluding Drama. ( Br ) 3 cr . Development of English poetry and prose fiction from (a) 1485 to 1660 through study of such authors as More, Sidney, Marlowe, Spenser, Shakespeare, Donne, and Jonson; or (b) from 1660 to 1790-Dryden, Defoe, Swift, Pope, Sam Johnson, and Goldsmith. May be taken once for each period.
324/524. The Romantic Movement. (Br) 3 cr. The development of romanticism in English poetry and prose, its theory and creation, including a survey of the pre-Romantic Movement.
$325 / 525$. Victorian Literature. (Br) 3 cr . Works which reveal the crisis of the individual in an age torn by conflicting values, with emphasis on the major poets and essayists including Tennyson, Browning. Arnold, Carlyle, Newman, and Ruskin.
327/527. Victorian Literature in Transition. (Br) 3 cr. Development of the modern spirit in such writers as Hardy, Conrad, Ford, Shaw, Yeats, and the Aesthetes and Decadents.

[^8]329/529. The American Renaissance. (Am) 3 cr . The American literary renaissance of the mid-nineteenth century with major emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, and Whitman.
330/530. Chaucer. (Br) 3 cr . Works of Chaucer with major emphasis on the Canterbury Tales and their historical, social, linguistic background.
333/533. Shakespeare. ( Br ) 3 cr . The early plays.
334/534. Shakespeare. (Br) 3 cr . The tragedies and later plays.
336/536. Milton. (Br) 3 cr . Milton's poetry and selected prose: the growth of a writer in his historical milieu.
$342 / 542$. English Grammars. 3 cr . A survey of the major methods of language analyses which have been applied to English since the 18th century; traditional, structural, and transformation-generative.
344/544. History of the English Language. 3 cr. Development of English sounds, spelling, inflection, syntax, vocabulary, and dialects from Old English to the present.
345/545. English Language for Teachers. 3 cr . Contemporary approaches to language acquisition, analysis, history, and usage, with emphasis on the problems of the teacher.
346/546. Old English. 3 cr. Introduction to Old English Ianguage and literature.
350/550. Advanced Expository Writing. 1 to 3 cr . The art of expository writing with attention to voice, audience, convincing use of evidence, and development of the writer's individual style. Prereq: 250 or cons chair.
351/551. Writing Techniques (Poetry or Fiction.). 1-3 cr. Readings, written exercises, discussions, and at the option of the instructor, lectures in the techniques of poetry or fiction writing; selected writers read and analyzed from the practicing writer's point of view. May be taken for a maximum of three credits under each focus. Prereq: Consent of instructor or of a committee of faculty writers.
352. Freelance Writing/Writing for Pleasure and Profit. 3 cr or audit. (Experimental 1982-84) Instruction in writing techniques with specific emphasis on the various types such as the familiar essay, the essay of opinion, the satirical essay,the character sketch; and how to market them.
353/553. Creative Writing (Poetry or Fiction). 1 to 3 cr . Training and practice in writing various forms of poetry or fiction; class discussion of student work. May be taken for a maximum of six credits under each focus. Prereq: Consent of instructor or of a committee of faculty writers.
354/554. Technical Writing. 3 cr. Practice in writing technical reports and articles connected with the student's area of specialization; does not fulfill the writing course requirement for the English major preparing to teach.
355/555. English Composition for Teachers (Elementary and/or Secondary). 2 or 3 cr . Investigation of writing as a composition process and approaches to the teaching of writing for all levels; a "theory and practice" course.
357. Independent Writing. 1 cr . (Pass-Fail ONLY) Same description as for 157.
360/560. Regional Literature. (Am) 3 cr . Literature by a small group of authors whose writing reflects the concerns of geographic areas. A subtitle will be added each time the course is offered. May be repeated under different subtitles.
361. World Literature. 3 cr . Representative selections of world literature from the earliest times to the seventeenth century.
362. World Literature. 3 cr . World literature from the seventeenth century to the present.
363. Nature Literature. 3 cr . Writings which emphasize the relationship of man to nature; visits with nature writers, and field trips to correlate readings with first-hand observation of the natural world. Meets requirements of Environmental Studies minor.
366/566. English Drama to Shaw. (Br) 3 cr. Major plays and trends in drama from medieval origins to modern period, such as Everyman, Dr. Faustus, Volpone, The Duchess of Malfi, Tis a Pity She's a Whore, Beggar's Opera, The Importance of Being Earnest.
370/570. The Afro-American in American Literature. (Am) 3 cr. A critical study of the black in American literature from two vantage points: the image of the black in the works of major American writers, and the image of the black and the image of America in works created by American black writers.
374/574. Oral Foundations of Written Composition in 巴árly Childhood. 1-3 cr. Evaluating and developingatechnigues of language instruction for children; the preschool and kindergarten child as creator of expressive language; the basis of composition skills. For teachers and prospective teachers in Early Childhood Education. Prereq: Acceptance inthethe ECĖ program; Communicative Disorders 266; English 274 or con reg.
375/575. Literature for Adolescents. 3 cr . Selecting and reading of literature suitable for adolescents. (See note 1, above.)

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378/578. Contemporary Fiction. 3 cr . Contemporary fiction since World War II with emphasis on experimental narrative techniques and/or thematic relationships. 1
380/580. Literary Criticism. 2 or 3 cr. Principles of literary criticism based on the chief ancient and moderf theories.
381/581. Reading for the Teacher of English. 3 cr Fundamental reading concepts applied to English; psychological background of the reading process, means of assessing student abilities and reading materials, and the relationship of reading to writing and speech; techniquestor developing positive student attitudes and skill incemprehending implied as well as explicit meanings. $\frac{1 d e}{} \mathrm{sem}$
382/582. Ethnic Literature of the United States. (Am) 3 cr. The concept of cultural pluralism and an exploration of literary works by Native-Americans, Afro-Americans , $_{\boldsymbol{j}}$ Ghicanoș and Hispanic-Americans, Asian-Americans, JewishAmericans, and writers of European immigrant descent.,
383/583. Themes in Literature. 1-3 cr. Works of several writers, selected from the manifestation of a theme or related themes, to be determined by the special interest of the staff member offering the course. A subtitle indicating the theme to be studied (e.g. The Jew in American Literature) will be added each time the course is offered. May be repeated under different subtitles.
385. Masters of Literature. 2 or 3 cr. A close, critical study of one or more masters of literature, to be determinely $b j{ }^{*}$ the special interest of the staff member offering the pciburse. A subtitle indicating the author or authors studied will be added each time the course is offered.

395/595. Workshop in English. 1 to 3 cr. Study of contemporary scholarship in English. A subtitle indicating the topic will be added each time the workshop is offered. Prereq: Written cons chair. May be repeated for credit under different subtitles.
397. Practicum. 1 to 3 cr . Students may, by agreement with the chair and consent of the instructor, arrange for supervised practical experience as tutors, teachers' aides, etc. Approximately 45 hrs of practice will be required for each credit. Subtitles will identify type of practicum.
399. Independent Study. Upper-class students may, by agreement with the chair, arrange for out-of-class work, for which credit may be allowed up to one credit for each week, or its equivalent, devoted exclusively to the project. Students with less than a grade point ratio of 3.00 in English courses are advised not to register for this course. Prereq: Cons instr.
498. Writing Internship. 1 to 6 cr . Supervised writing experience in the field; evaluation by faculty member in consultation with field supervisor on the basis of a culminating report and samples of the writing done; credit to be determined by the facuity in charge; open only to English majors and minors, Writing minors, and Technical Writing minors, prerea Sr st and cons chair.
712. Modern Drama. 3 cr. The works of contemporary continental, British, and American playwrights.
714. Nodern Poetry. 3 cr. British and American Poetry from 1933 to the present.
715. The English Novel, I. 3 cr. The English novel from its eighteenth Century beginnings to the Victorian writers Dickens, Thackeray, and Eliot.
716. The English Novel, II. 3 cr. Major development in the English novel from the 1860's to the present; representative novelists such as Trollope, Meredith, Hardy, Joyce, Lawrence, and Conrad.
717. American Novelists I. 2 or 3 cr. Writers such as Cooper, Hawthorne, Melville, Howells, Mark Twain, Henry James, and Crane.
718. American Novelists II. 2 or 3 cr. Writers such as Norris, Dreiser, Wharton, Cather, Glasgow, Lewis, Dos Passos, Steinbeck, Hemingway, and Faulkner.
722. Seventeenth Century English Literature. 3 cr. Metaphysical, d冈จ@fer, and Spenserian poetry exclusive of Milton, and a study of prose from Bacon to Walton.
723. English Neoclassic Literature. 3 cr . Figures such as Dryden, Pope, Swift, and Johnson, and such literary modes as Restoration Drama, the periodical essay, and the novel.
724. Major Romantic Writers. 3 cr. The poetry and prose of Wordsworth, Coleridge, Byron, Shelley, and Keats.
725. Seminar in Victorian Literature. 3 cr . The specific focus will be indicated by a subtitle each time the course is offered.
740. Language in Society. 3 cr. Historical growth and continaidevelopment of the English language and its uses inisciciety, including a study of current usage and principless/or.evaluating language in use.
750:- Wititing Non-fiction. 3 cr . Reading of modern essays to learn about different methods and styles combined with criticism of the student's own writings.
752. Workshop in Fiction. 3 cr . Advanced study in the techniques of fiction; discussion and criticism of work submitted by class members. Prereq: cons instr or cons chair.
753. Workshop in Poetry. 3 cr . Advanced study in the techniques of poetry; discussion and criticism of poems submitted by class members. Prereq: cons instr or cons chair.
755. Teaching Creative Writing. 3 cr . Research and discussion on the problems and techniques of teaching creative writing emphasizing motivation and the function of criticism in the development of student writers.
760. Literature and the Human Experience. 3 cr . Literature as an instrument for man's understanding of his own experience.
762. Seminar in American Literature. 3 cr . The specific focus will be indicated by a sub-title each time the course is offered.
770. Theory of Literature. 3 cr . The nature of literature, the elements of the literary process, and the nature and modes of narrative fiction.
772. Poetry: Forms, Functions, and Meanings. 3 cr. The forms and structures of poetry in English and the ways that poems convey meanings.
785. Selected Literary Master(s). 2 or 3 cr . The specific master(s) will be announced in the timetable.
786. Selected Literary Topic(s). 2 or 3 cr . The specific topic(s) will be announced in the timetable.
796. Independent Study. 1 to 3 cr . Supervised study under the direction of an instructor.
799. Thesis. 2 to 6 cr .

## Course in English Education

332. Techniques in Secondary Education: English. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in high school teaching. Does not count toward the English major.

## ENVIRONMENTAL COMMUNICATION

## See Natural Resources.

## ENVIRONMENTAL EDUCATION/ INTERPRETATION

See Natural Resources.

## ENVIRONMENTAL LAW ENFORCEMENT

See Natural Resources.

## ENVIRONMENTAL STUDIES (College of Letters and Science)

J. Baird Callicott, Coordinator.

Room 409, Collins Classroom Building. Phone: (715) 346-3428.
A minor in Environmental Studies consists of a minimum of 24 credits distributed as follows:

1. Required courses:
a. Biology 305 (General Ecology), 3 cr .
b. Natural Resources, 3 cr . one of these:
*370. (Intro to Env Studies); or
2. (Integrated Resource Mgmt); or
3. (Community Env Issue Invstgtn).
*iMajors and minors in the College of Natural Resources are not eligible for 370 . Others must include 370, and may include 478 among the electives.
4. Electives: The remaining credits will be selected from courses in at least four different departments, as listed below (3 cr each, except as indicated):
a. Anthropology 342 (Env), 350 (Cultural Ecology);
b. Art 347 (Amer Indian Crafts);
c. Communication 400 (Comm and Nat Res);
d. Economics 204 (Env);
e. English 363 (Nature Lit);
f. Geography 340 (Env Degredation);
g. History 228/328 (Res Dvipmt \& Policy in Europe) 2 or 3 cr .366 (. . .in the U.S.);
h. Natural Resources 300 (Fndtns Env Ed), 375 (Env Field Studies), 475 (Intrntnl Env Studies Seminar), 478 (as in 1.b. above), 493 (Env Field Seminar), 1 or 2 cr ;
i. Philosophy 181 (Amer Ind Env Phil), 380 (Env Ethics), 385 (Env Aesthetics);
j. Physics 333 (Phys Approach to Env Sci);
k. Political Science 304 (Politics and Env);
l. Psychology 321 (Env);
m. Sociology 260 (Population Problems).

## EXPERIENTIAL LEARNING PROGRAM

James A. Gifford, Adviser.
Room 429, Collins Classroom Building.
Phone: (715) 346-2078.
The Experiential Learning Program allows students to receive credit for college level learning obtained outside the traditional academic setting. Credit is not granted simply for experience; but rather for the learning which was obtained as a result of that experience, and which is equivalent to that which would be gained through UW-SP course work.

Prior learning may be evaluated by a number of techniques, including CLEP examinations and challenge examinations offered by various departments. Where such methods are appropriate for specific courses, they will be employed in lieu of the portfolio assessment.
Evaluation of experiential learning for credit is undertaken only for students who have formally applied for admission to the University. The procedures for application and for portfolio assessment are:

1. Students shall contact the Experiential Learning Adviser (ELA) who will assist the students in identifying those competencies which have been acquired, and which credits should be sought by prior learning assessments and which by more traditional means. Transcripts that certify formal educational experience should be sent to the Admissions Office.
2. Students shall prepare detailed and documented portfolios of their adult learning experiences, stating which competencies they believe have already been acquired. The ELA will be available for consultation during the portfolio development process.
3. After the adviser and student have determined which credits are to be sought and have prepared the forms and documentation, the ELA shall send the materials to the chair(s) of the involved department(s) for assignment to the appropriate faculty member or faculty committee for assessment, and for determination of the amount of credit in appropriate areas. The faculty assessor may use the written portfolio, may telephone the applicant, or may want a personal interview either at UW-SP or on-site where the applicant works.
4. The basic purpose of the interview is to allow the evaluating faculty member an opportunity to verify the information in the portfolio, and to secure additional materials from the student or other sources about the learning experiences for which credit is sought.
5. After completion of the evaluation, the faculty member shall make a written recommendation for or against the award of credit, the amount of credit, and the level of credit, and shall submit the recommendation and portfolio to the Chair of the appropriate department for approval or disapproval. The Chair will forward the material and final recommendation to the ELA.
6. The ELA will notify the student and the Recordigifice of the award of credit, and this shall be entered into the student's permanent record. A fee of $\$ 50.00$ for nine or fewer credits, or $\$ 100.00$ for ten of more credits will be assessed.
Although every reasonable effort will be made to prodeed expeditiously, students should not assume that the evaluation can be completed during the semester of ipitial application. Evaluation of prior learning may take sêveral weeks or even months.

## EXPERIMENTAL FOOD AND NUTRITION

See Home Economics.

## FOOD AND NUTRITION

See Home Economics.

## FOOD SERVICE MANAGEMENT

See Home Economics.

## FOREIGN LANGUAGES (College of Letters and Sciencel)

Mark Seiler, Chair.

Room 490, Collins Classroom Building.
Phone: (715) 346-3036.
The Department of Foreign Languages offers courses in Chinese, English as a second language, French, Gervían, Greek, Polish, Russian, and Spanish.
A. A major in a foreign language (Fŕench, German, Spaniish) consists of 24 credits in courses at the 300 and 400 levels, including $313,314,317,331,340$, and one literature course beyond 340.
A major in a foreign language with a concentratiominn is culture studies consists of 30 credits: 15 credits ofranfi guage and literature at the 300 and 400 levels, inotuala ing 313, 314, 317, 340; and 15 credits of culture sfudies including six credits of 331 , and nine credits in course-
work outside the department, selected with the approval of the adviser.
B. A minor in a foreign language (French, German, Russian, Spanish) consists of 15 credits in courses at the 300 and 400 levels, including 313, 314, 331 and 340. (In Russian, substitute 300, 301, 331, and a 300 level literature course.)

## Teacher Certification Programs

Students seeking teacher certification must be accepted into the Professional Education Program (see description on the earlier section of the catalog "College of Professional Studies") and must take Foreign Language Education 333 which is offered in the fall semester only.
Students seeking teacher certification in English as a Second Language must have:
(a) the elementary education curriculum with a concentration in English or Foreign Language;
OR (b) the secondary education curriculum with a major or minor in English or a Foreign Language.
AND (1) four semesters of college level foreign language; (2) demonstrated proficiency in English; (3) English 240 or Anthropology 280; English 342; Anthropology 112 or 310; Communicative Disorders 266; (the following additional courses are strongly recommended: English 345, 382; Communicative Disorders 260; Foreign Language 320.); (4) Education 398 and/or English 392, and Foreign Language Education 333.
Students seeking certification to teach Foreign Languages in the Elementary School, in addition to the elementary education curriculum with at least a minor in a foreign language, must have:
(a) 320 - Phonetics; (b) 317 - Advanced conv; (c) Foreign Language Education 333; and (d) Education 398 or Foreign Language Education 397 in appropriate work. Details may be obtained from the chair of the Foreign Language Department.
Students seeking certification to teach Foreign Languages in the Secondary School (French, German, Russian, Spanish), in addition to a major or a minor in a foreign language, must have 317 and 320 in the appropriate language; and Foreign Language Education 333, and Education 398. They must also pass an oral proficiency examination in the foreign language. Details may be obtained from the chair of the Foreign Language Department.
To be accepted, retained, and approved for graduation with a major or minor in the Department of Foreign Languages and Comparative Literature, a student must maintain a grade point ratio of 2.00 in courses taken within the major or minor, regardless of declaration of academic bankruptcy.

## Policy on Placement, Advanced Standing, and Credit By Examination

All entering students who elect courses in French, German, Russian, or Spanish, and who have previously studied that language in high school are required to take a placement
examination. On the basis of this examination they will be placed in the appropriate course. Students are urged to complete this placement examination before their assigned registration day; arrangements are made with the chair of the department.
Freshmen and sophomores who have demonstrated proficiency in a foreign language may be placed in the appropriate foreign language course by the department.
The department is a participant in the University Advanced Standing Program. Under this program:
a. The department will grant up to 16 credits for foreign language courses completed in high school. The student must take a placement exam, and complete the courses into which he was placed with a grade of C (excluding C-) or better to receive retroactive credit.
b. Credit will be granted to students who demonstrate proficiency in a language gained through nonacademic means. The student must take a placement exam and complete the course into which he was placed with a grade of C or better to receive credit for prerequisite courses, which the student has not taken formally.
A student applying for credit for courses completed in high school, or for test-out credit, must be enrolled in a foreign language course at the time of application. After successful completion of that course, the department will recommend granting the credit for which the student has applied.
See also course listing under Foreign Language Education (next section).

## Courses in Foreign Language (General Courses)

See also the course listing under Courses in Foreign Language Education, below.
010. English as a Foreign Language. 0 cr . A two-semester, non-credit course in English for foreign students who do not have adequate facility in English for university work.
100. Introductory Conversation. 2 cr . The language in which the course is offered will be specified after the colon.
199/299. Independent Study. Each 1 to 4 cr . Individual study of foreign language under the direction of a consenting faculty member. Prereq: Cons chair.
301. Contrastive Linguistics. 3 cr . A comparison of the phonological, morphological, and synthetic structures of English with French, German, Russian, and Spanish. This course counts toward a language major or minor. Prereq: French 212, or German 212, or Russian 212, or Spanish 212, or equiv.
330. Culture and Civilization. 2 or 3 cr . A subtitle indicating the focus will be assigned each time the course is offered; may be repeated for credit under different subtitles. May count toward a major or minor in foreign language with prior consent of the department chair.
340/540. Special Language Studies. 1 to 3 cr . Special focus on some aspect of a language or the relationship between two or more languages. The focus will be determined by the instructor each time the course is offered. May be repeated under different subtities. Prereq: One year of study in a foreign language.

399/499. Independent Study. Each 1 to 4 cr. Individual study of foreign language under the direction of a consenting faculty member. Prereq: Cons chair.
796. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor.

## Courses in Foreign Language Education

333/533. Techniques in Second Language Instruction. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in teaching foreign languages and English as a second language in elementary and secondary schools. Class meetings; attendance at four weeks of a beginning language class in a language which the student has not yet studied; four weeks observation and teaching in a beginning language course in the student's target language.
397. Practicum. 1 to 3 cr . Students may, by agreement with the chair and consent of the instructor, arrange for supervised practical experience as tutors, teachers' aides, etc. Approximately 45 hours of practice will be required for each credit. Subtitles will identify the type of practicum.
733. Workshop in Foreign Language Education. 1-3 cr. Problems of teaching in the elementary and secondary schools. A subtitle will be added each time the course is offered. Prereq: Advanced standing in the foreign language education curriculum, or teaching experience.

## Courses in Chinese

101. First Year Chinese. 4 cr. Elementary modern Mandarin, for students with no previous training in the language.
102. First Year Chinese. 4 cr. Continuation of 101. Prereq: 101 or equiv.
103. Second Year Chinese. 4 cr. Intermediate modern Mandarin; intensive grammar review, practice in reading, speaking, and writing Chinese. Prereq: 102 or equiv.
104. Second Year Chinese. 4 cr. Continuation of 211. Prereq: 211 or equiv.

## Courses in French

101. First Year French. 4 cr. For students with no previous training in the language, or by placement examination.
102. First Year French. 4 cr. Continuation of 101. Prereq: 101, or by placement examination.
103. Second Year French. 4 cr. Intensive grammar review in reading and speaking. Prereq: 102, or by placement examination.
104. Second Year French. 4 cr . Continuation of 211. Prereq: 211, or by placement examination.
105. Intermediate Conversation. 3 cr. Prereq: 212, or by placement examination.
106. Intermediate Composition. 3 cr. Prereq: 212, or by placement examination.
107. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 and 314, or cons chair.
108. Phonetics and Diction. 3 cr. Prereq: 212, or by placement examination.

331/531. French Culture and Civilization. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
340. Introduction to French Literature. 3 cr. Intensive reading in French literature, methods of literary analysis of the various genres: introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 212, or by placement examination.
341. Survey of French Literature. 3 cr. French literature to 1800. Prereq: 340 or cons instr.

342/542. Survey of French Literature. 3 cr. Nineteenth century French literature to the present. Prereq: 340 or cons instr.
350. Seventeenth Century Literature. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
355. Eighteenth Century Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
360. Nineteenth Century Literature. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
370/570. Twentieth Century Literature. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
493/693. Special Literature Studies. 2 or 3 cr . Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two authors. Prereq: 300-level literature course, or cons instr.
499. Independent Study. 1 to 4 cr . Individual study under the direction of a consenting faculty member. Prereq: Cons of chair.

## Courses in German

101. First Year German. 4 cr. For students with no previous training in the language, or by placement examination.
102. First Year German. 4 cr. Continuation of 101. Prereq: 101, or by placement examination.
103. Second Year German. 4 cr. Intensive grammar review. Prereq: 102, or by placement examination.
104. Second Year German. 4 cr . Continuation of 211. Prereq: 211, or by placement examination.
105. German Literature in Translation. 3 cr. Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: So st or cons instr. This course does not apply toward the major or minor in German.
106. Intermediate Conversation. 3 cr. Prereq: 212, or by placement examination.
107. Intermediate Composition. 3 cr. Prereq: 212, or by placement examination.
108. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 or 314 , or cons chair.
109. Phonetics and Diction. 3 cr. Prereq: 212, or by placement examination.

331/531. German Culture and Civilization. 3 cr. A subtitle, indicating the focus, will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
340. Introduction to German Literature. 3 cr . Intensive reading, methods of literary analysis of the various genres; introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 212 or by placement examination.
355. Literature of the Eighteenth Century. 3 cr . Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtities. Prereq: 340 or cons instr.
360. Literature of the Nineteenth Century. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
370/570. Literature of the Twentieth Century. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtities. Prereq: 340 or cons instr.
441. Survey of German Literature. 3 cr . From the beginnings to the eighteenth century. Prereq: One 300 -level German literature course, or cons instr.
442. Survey of German Literature. 3 cr . From the eighteenth century to the present. Prereq: One 300 -level German Literature course, or cons instr.
493/693. Specialized Studies in German Literature. 1 to 3 cr. Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two or more authors. May be repeated for credit under different subtitles. Prereq: One 300-level German course and cons instr.
499. Independent Study. 1 to 4 cr . Individual study under the direction of a consenting faculty member. Prereq: Consent of the chair.

## Courses in Greek

105. New Testament Greek. 4 cr. Fundamentals of New Testament Greek necessary to develop reading ability. Not to be counted toward the Foreign Language requirement of the general degree requirements.
106. New Testament Greek. 4 cr. Readings from the New Testament. Not to be counted toward the Foreign Language requirement of the general degree requirements. Prereq: 105, or cons instr.

## Courses in Polish

101. First Year Polish. 4 cr. For students with no previous training in the language.
102. First Year Polish. 4 cr . Continuation of 101. Prereq: 101 or equiv.
103. Second Year Polish. 4 cr. Prereq: 102 or equiv.
104. Second Year Polish. 4 cr. Continuation of 211. Prereq: 211 or equiv.
105. Specialized Studies in Polish. 1 to 3 cr. Individual study under the direction of consenting faculty member. Prereq: Consent of the chair.

## Courses in Russian

101. First Year Russian. 4 cr. For students with no previous training in the language.
102. First Year Russian. 4 cr . Continuation of 101. Prereq: 101, or by placement exam.
103. Second Year Russian. 4 cr. Intensive grammar review, practice in reading and speaking Russian. Prereq: 102, or by placement exam.
104. Russian Literature in Translation. 3 cr. Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: So st, or cons instr. This course does not apply to the Russian minor.
105. Continuing Russian. 4 cr . Intermediate development of language skills beyond the third semester, with emphasis on vocabulary building and syntax, intended to improve all language competencies. A subtitie will be added each time the course is offered. May be repeated for credit under different subtitles. Prereq: 211, or by placement examination.
106. Continuing Russian. 4 cr . See the description of Russian 300.
107. Intermediate Russian Conversation. 3 cr. Prereq: 300 or 301 , or by placement examination.
108. Intermediate Russian Composition. 3 cr. Prereq: 300 or 301, or by placement examination.
109. Russian Culture and Civilization. 3 cr . A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 300 or 301 , or by placement examination.
110. Literature of the Nineteenth Century. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340 or cons instr.
111. Literature of the Twentieth Century. 3 cr. A subtitie will be added each time the course is offered. With a different focus, the course may be repeated for credit. Prereq: A 300 -level Russian course, or cons instr.
112. Specialized Studies in Russian Literature. 1 to 3 cr . Special focus to be determined by the instructor offering the course: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two or more authors. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: one 300-level Russian course or cons instr.
113. Independent Study. 1 to 4 cr. Individual study under the direction of consenting faculty member. Prereq: Consent of the chair.

## Courses in Spanish

101. First Year Spanish. 4 cr. For students with no previous training in the language, or by placement exam.
102. First Year Spanish. 4 cr. Continuation of 101. Prereq: 101, or by placement exam.
103. Second Year Spanish. 4 cr. Intensive grammar review, practice in reading and speaking Spanish. Prereq: 102, or by placement exam.
104. Second Year Spanish. 4 cr. Continuation of 211. Prereq: 211, or by placement exam.
105. Spanish Literature in Translation. 3 cr. Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: So st or cons instr. This course does not apply toward the major or minor in Spanish.
106. Intermediate Spanish Conversation. 3 cr. Prereq: 212, or by placement exam.
107. Intermediate Spanish Composition. 3 cr. Prereq: 212, or by placement exam.
108. Advanced Conversation and Composition. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 313 and 314, or cons chair.
109. Phonetics and Diction. 3 cr. Prereq: 212, or by placement exam.
110. Culture and Civilization. 3 cr . A subtitle, indicating the focus, will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 340, or cons instr.
111. Introduction to Literature. 3 cr . Intensive reading, methods of literary analysis of the various genres; introduction to fundamental techniques of literary criticism. A subtitle will be added each time the course is offered; may be repeated once for credit under a different subtitle. Prereq: 212 or by placement examination.
112. Survey of Spanish Literature. 3 cr . Spanish literature from the earliest works to the Renaissance. Prereq: 212, or 331, or by placement exam.
113. Survey of Spanish Literature. 3 cr. Spanish literature from the Renaissance to the present. Prereq: 212, or 331, or by placement exam.
114. Survey of Spanish American Literature. 3 cr. From chronicles to modernism. Prereq: 212 or 332, or by placement exam.
115. Survey of Spanish American Literature. 3 cr. From modernism to the present. Prereq: 212 or 332, or by placement exam.
116. Poetry and Drama of the Golden Age. 3 cr . Verse of the major Golden Age poets. Prereq: 331, or one 300-level Spanish lit course, or cons instr.
117. Prose of the Golden Age. 3 cr . Development of the Spanish novel in the sixteenth and seventeenth centuries. Prereq: 331, or one 300-level Spanish lit course, or cons instr.

451/651. Cervantes. 3 cr . Don Quixote and other works in the life and times of Miguel de Cervantes. Prereq: 331, or one 300-level Spanish lit course, or cons instr.
460. Nineteenth Century Spanish Literature. 3 cr. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 331; or one 300-level Spanish lit course, or cons instr.
470/670. Spanish Literature of the Twentieth Century. 2 or 3 cr . Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 331, or one 300level Spanish lit course, or cons instr.
471. Spanish-American Literature of the Twentieth Century. 2 or 3 cr . Selected readings. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 331, or one 300-level Spanish lit course, or cons instr.
493/693. Specialized Studies in Spanish (or Spanish American) Literature. 1 to 3 cr . Special focus to be determined by the instructor offering the course, one of the following: a literary genre or group, a recurrent theme in literature, a single author, or a comparison of two or more authors. A subtitle indicating the focus will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: One 300 -level Spanish course and cons instr.
499. Independent Study. 1 to 4 cr . Individual study under. the direction of consenting faculty member. Prereq: Consent of chair.

## FORESTRY

For the description of the major and minor and for course listings in Forestry, see the section headed Natural Resources later in the catalog.

## FRENCH

For the description of the major and minor and for course listings in French, see the section headed Foreign Languages and Comparative Literature earlier in the catalog.

## GENERAL SCIENCE

See Natural Science.

## GEOGRAPHY AND GEOLOGY (College of Letters and Science)

Thomas Detwyler, Chair.
Room D-332, Science Building.
Phone: (715) 346-2629.

## Geography

(Geology is listed immediately following.)
A. A major in Geography consists of a minimum of 34 credits and must include one of the four options listed below.
The core of required courses in each option consists of 18 to 20 credits:
(a) Geography 102 and 103, or either Geography 100 or 101. (If 100 or 101 is taken, contact the department chair for additional requirements).
(2) Geography 113 or $120,276,378$.

1. The Physical Environment Option consists of (a) the core courses; (b) Geography 352, 353 or 354, 377, 379, and Geology 380; (c) additional Geography courses to total 34 credits; (d) the following courses are recommended: Biology 355; Soil Science 362; Geology 201, 360; Geography 340; Mathematics 355.
2. The Cartographic Option consists of (a) the core courses; (b) Geography 376, 377, 379, and 386; (c) additional Geography courses to total 34 credits; (d) the following courses are recommended: Computer Science 110 and 112; Mathematics 355; Computer Graphics when available.
3. The Urban-Economic Option consists of (a) the core courses; (b) Geography 110, 270 or 272, 367, 373, and 377 or 386; (c) additional Geography courses to total 34 credits; (d) the following courses are recommended: Natural Resources 480; Mathematics 355 or Economics 330; Sociology 356, 357; Political Science 242; Communication 210.
4. The Cultural Environment Option consists of (a) the core courses; (b) Geography 120 or 113 (whichever was not taken in fulfillment of the core), 369, and two regional Geography courses; (c) a selection from Geography 326, 368, 377 or 379; Anthropology 334 or 335 or 336 or 337 or 338, according to interest; Sociology 260; Sociology 370 or Anthropology 370; Economics 362. (d) there must be a minimum of 34 credits in Geography.
No geography course at the 300 or 400 level taken on a pass/fail basis may be credited toward the major.
To be accepted as a major, to be retained as a major, and to be approved for graduation, the student must have a minimum grade point ratio of 2.00 in all courses taken within the Geography major, regardless of a declaration of academic bankruptcy. The department chair may allow exemptions on a conditional basis.
A major must have a departmental adviser, with whom the student must confer every semester. Advisers serve by mutual agreement, which must be on record in the department office.
B. A minor in Geography* consists of $\mathbf{2 2}$ credits:
(a) Geography 101, or 102 and 103; 110 or 120;
(b) at least one course from each of the following groups: (1) Geography $113,211,226$ or $326,300,301$, 302, 327, 328, 329, 330; (2) Geography 270, 272, 340, 369, 373, 374, 375.
(c) additional credits to total 22 (may include Latin American Studies 423).
C. A minor in Geography for teacher certification* consists of 22 credits:
(a) Geography 101, or 102 and 103; 110 or $120 ; 378$;
(b) at least two regional courses from Geography 113,

211, 226 or 326, 300, 301, 302, 327, 328, 329, 330;
(c) at least one topical course from Geography 270,

272, 340, 369, 373, 374, 375;
(d) additional credits to total 22.

- No geography course at the 300 or 400 level taken on a pass/fail basis may be credited toward the minor.


## Courses in Geography

Geography 100, 101, 102, 103, 352, 353, and 354 are physical geography courses. All others, except 276, 376, 377. 378, 379, and 386, are human geography courses.
100. The Physical Environment Under Stress. 3 cr. Selected physical geographic principles and processes, especially as they apply to human use of the earth; a problemoriented introduction to such elements as atmosphere, climate, water, landforms, soils, and vegetation. Two hrs lec, two hrs lab per wk; field trip(s) may be required. This course may be used in partial fulfillment of Part B of the Natural Science requirement for a degree.
101. The Physical Environment. 5 cr. Introduction to modern physical geography: maps and map reading, energy balance, weather and climate, water, soils, vegetation, and landforming processes; dynamic relations among physical elements; the importance to humans of the physical environment. Three hrs lec, four hrs lab per wk, field trip(s) may be required. This course may be used toward the laboratory science requirement for a degree, but cannot be counted for graduation or the major if 102 or 103 (or equiv) is counted.
102. Physical Geography L. 5 cr . Elements of weather and climate; earth-sun relationships, temperature, pressure and winds, humidity, and storms; world climate classification and vegetation zones. Three hrs lec, four hrs lab per wk.
103. Physical Geography II. 5 cr. Composition and areal distribution of the earth's features; landforms, soils, rocks and minerals, surface and ground water; map interpretation; field trips may be required. Three hrs lec, four hrs lab per wk.
108/308. Environmental Issues through Films. 2 cr. (Experimental 1983-84) Films used to develop various perspectives on, and explore basic solutions to, environmental issues, e.g., relations between man and nature, animal extinction, surface mining, forest cutting and wilderness, agricultural land use, insecticides, workplace hazards, chemical dumping, urban quality, nuclear power and radiation, and the threat of nuclear war. May not be taken concurrently with Geography 340/540.
109/309. World Views through Films. 1 cr. (Experimental 1981-83) An introduction through films and discussion to some important recent or current geographical issues in various regions of the world, e.g., marine oil pollution in Europe, revolution in Central America. Films reflecting views from other cultures are emphasized, to help transcend American ethnocentrism. May not be taken concurrently with Geography 113. PASS-FAIL only.
110. Economic Geography. 3 cr . Introductory analysis of economic activities to include agriculture, mining, forestry. fishing, and manufacturing; field trip(s) may be required.
113. World Regional Geography. 3 cr. Survey of major patterns of physical features, culture, and human-land relations, by region, in today's world; examples may show present and impending resource, environmental, social, and political problems, and explore basic solutions.
120. (Formerly 251) Cultural Geography. 3 cr. Cultural systems and the contemporary world: components and spatial expression of culture; patterns and problems of population,
language, religion, urban and rural settlements, and political and economic development examined from such perspectives as diffusion, cultural ecology, cultural landscape, and cultural region.
211. Wisconsin. 2 or 3 cr . Geographic analysis of selected physical and cultural features of the state. Prereq: So st.
226. United States and Canada. 3 cr. Geographic interpretation of cultural and physical regions of the United States and Canada. Prereq: So st.
The former 251 is now 120.
270. Geography of Transportation. 3 cr . Survey and analysis of carriers, terminals, and routes of the world, with emphasis on commodity flow and traffic patterns. Prereq: So st.
272. Geography of Manufacturing. 3 cr. Distribution of manufacturing with emphasis on northeastern United States, the nations of Europe, and eastern Asia. Field trip(s) may be required. Prereq: So st.
276. Introduction to Cartography: Map Concentration and Development. 3 cr . The map production process, including the rationale for the map, its graphic structure, data collection and organization, map layout and final production. Two hrs lec, three hrs lab per wk. Prereq: So st.
300/500. Africa. 3 cr . Regional interpretation with particular attention to the distribution and activities of the peoples in relation to the physical and cultural patterns and to the various stages and problems of development.
301/501. Middle America. 2 cr . Mexico, Central America, and the Antilles: Landforms, climate, natural vegetation, resources, population, historical evolution, political divisions, and economic organization.
302/502. Southwest Pacific. 3 cr. Geography of Australia, New Zealand, and the Southwest Pacific Islands as conditioned by environmental circumstances, native and alien cultural influences, and political affiliations.
308 and 309 - See 108 and 109.
326/526. Historical Geography of the United States. 3 cr. A view of man's changing evaluation and utilization of the American land.
327/527. Asia. 3 cr. Physical features of the continent in relation to the distribution of population, agriculture, industry, and trade; special attention given to China, Japan, Korea, India, and Southwestern Asia.
$328 / 528$. Europe. 3 cr . Distinctive features of Europe as a continent; physical and historical background; natural regions and their division into political units; the characteristics of each country (excluding the Soviet Union).
329/529. South America. 3 cr . A topical and regional analysis of the geography of South America.
330/530. The Soviet Union. 3 cr. Geographic interpretation of the USSR in terms of environmental conditions, historical circumstances, technological development, and Marx-ist-Leninist ideology.
340/540. Environmental Degradation: A World Survey. 3 cr. A systematic review of critical locations representing man's destructive effects on the physical environment. Field trips may be required.
352. Landforms. 3 cr . Form and origin of landforms; field trips may be required in the local area to supplement classroom activities. Prereq: 100 or 101 or 103, or cons instr.
353. Analytical Climatology. 3 cr . Study of the composition, characteristics, and circulation of the atmosphere. Field trips may be required. Prereq: 100 or 101 or 102, or cons instr.
354/554. Regional Climatology. 3 cr . A descriptive explanatory analysis of world climatic patterns and classification systems. Prereq: 100 or 101 or 102, or cons instr.
367/567. Locational Analysis of Economic Activities. 3 cr. Spatial patterns of economic activities with emphasis on agriculture, manufacturing, transportation, and retailing.
368/568. World Populations and Resources. 3 cr. Distribution and characteristics of resources; analysis of selected populations, their resource bases, and related problems.

369/569. Political Geography. 3 cr. Geographical interpretation of selected political areas; the political significance of cultural and physical aspects of such areas.
373/573. Urban Geography. 3 cr. Physical characteristics, spatial patterns, functions, populations, land use, and livelihood structures of cities. Field trips may be required.
374/574. Geography of Agriculture. 3 cr. Historical development of agriculture; characteristics and locational factors of current world agricultural production.
375. Mineral Resources. 3 cr . Distribution and production of world mineral resources, including conservation principles.
376. Map Development and Symbolization. 3 cr: Data manipulation and presentation, centering on cartographic symbols and their application to different mapping problems. Two hrs lec, three hrs lab per wk. Prereq: 276 or cons instr.
377. Air Photo Interpretation. 3 cr. Characteristics of aerial photographs and the use of air photo interpretation to gather data concerning regional landform analysis, resource inventories, and land use evaluation. Two hours lec, two hours lab per week. Credit may not be earned in both Geography 377 and Natural Resources 377.
378. Field Study. 3 cr. Direct observation of geographical factors, both physical and cultural, and their influence in a given region; preparation and presentation of a report. Field trips are required. Prereq: 376, or cons instr.

379/579. Remote Sensing of the Environment. 3 cr. Principles of remote sensor technology and their application to inventory earth resources, detect and monitor pollution, and measure other environmental phenomena; interpretation of multiband photography, multispectral, thermal infrared, and radar imagery, and other types of data derived from sensors carried in aircraft and satellites. Prereq: Any geology or physical geography course, or cons instr. Field trips may be required.
386. Map Design and Production. 3 cr. The graphic elements of a map and their role in the physical and perceptual structure of the map image; graphic communication, design principles, and map production skills. Two hrs lec, three hrs lab per wk. Prereq: $\mathbf{2 7 6}$ or cons instr.
391. Special Topics. 1 to 3 cr . Topics of interest to be treated from the geographical point of view. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Field trips may be required.

393/593. Field Trip in Geography. 1 to 3 cr. Direct observation of physical and cultural phenomena; required readings, field notebook, and/or report. May be repeated for credit with change in locale or topic.

395/595. Directed Study. 1 to 3 cr . Students may, by prior arrangement with an instructor, arrange for directed study of a geographical topic. Prereq: One course in geography, and consent of the chair.
399. Research. 1 to 3 cr . Students may, by prior agreement with an instructor, arrange for a special research problem; research results will be publicly presented. Prereq: Consent of chair.

## Geology

A minor in Geology consists of 22 credits: (a) Geology 104 and 105, or 101 and 105; (b) Geology 200 and 201; (c) remaining credits selected from Geology 310, 340, 350, 360, 370, 380, 391, 393, 395; Geography 352, 375, 376, 377, 379.

## Courses in Geology

100. Geology and Man. 3 cr. Application of geological knowledge to human activities encountered in the physical environment; approaches for reducing harmful effects of human interaction with the geologic environment. Two hrs lec, two hrs lab per wk; field trip(s) may be required. This course may be used in partial fulfillment of the Natural Science requirement for a degree.
101. Principles of Geology. 5 cr . Introduction to the field of geology; including materials, processes, and history of the earth. Three hrs lec, four hrs lab per wk; field trip(s) may be required.
102. Physical Geology. 4 cr . Introduction to the study of minerals and rocks and processes which act upon and within the earth. Three hrs lec, two hrs lab per week; field trips may be required.
103. Historical Geology. 4 cr . Survey of the history of the earth and life; emphasis on the evolution of continents. Three hrs lec, two hrs lab per week; field trips may be required. Prereq: 104.
104. Mineralogy. 3 cr . Introduction to descriptive mineralogy with emphasis on the common ore and rock forming materials. Prereq: 101 or 104; or Chemistry 105 or 115; or Geography 103.
105. Structural Geology. 3 cr . Properties, relationships, and positions of the component rock masses of the earth; graphic and stereographic projection methods of solving structural problems. Prereq: 101 or 104 or equiv.
106. Directed Study. 1 or 2 cr . Students may, by prior agreement with an instructor, arrange for directed study of a geological topic. Prereq: Cons instr.
107. Petrology. 3 cr . Introduction to the study of the formation, identification, and classification of rocks; emphasis on hand specimen identification. Two hrs lec, two hrs lab per wk. Prereq: 200.
108. Geology of Our National Parks. 2 cr. (Experimental 1982-84) Geology and natural environment of selected national parks and monuments, and other points of special scientific interest, in the United States; physical features explained as examples of specific natural processes and as representative examples of conditions in the surrounding regions. May be taken on PASS/FAIL basis by students not majoring or minoring in geography, geology, or earth science.

339/539. Fossil History of the Vertebrates. 3 cr . A survey of the evolutionary history of the major vertebrate groups as revealed by the fossil record.
340/540. Sedimentology. 3 cr . The processes of weathering, transportation, deposition, and lithification which produce the detrital, biochemical, and chemical sedimentary rocks. Two hrs lec, two hrs lab per wk; field trips may be required. Prereq: 104.
350. Geologic Field Methods. 3 cr . Theory and technique of geologic mapping and field work; use of hand level, Brunton, and other instruments; field trips. Prereq: 201 or cons instr.
360. Geomorphic Regions of the United States. 3 cr. Concept of the geomorphic region; description of the major geomorphic regions of the United States and how they have been shaped by geologic processes. Two hrs lec, two hrs lab per wk. Prereq: 100 or 101 or 104; or Geography 100 or 101 or 103; or equiv.
370/570. Glacial Geology. 3 cr . The origin and development of glacial features and related phenomena over the last three million years; field trips may be required. Prereq: 104 or Geog 103 or cons instr.
$380 / 580$. Oceanography. 3 cr . Scientific survey of the oceans in their physical, chemical, biological, and geological aspects.
391. Special Topics. 1 to 3 cr . Topics of interest to be treated from the geological point of view. A subtitle will be added each time the course is offered; may be repeated for credit under different subtitles. Prereq: 101 or 104 or equiv.

393/593. Field Trip in Geology. 1 to 3 cr. Direct observation of geological phenomena; required readings and field notebook. May be repeated for credit with change in locale or topic.
395. Directed Study. 1 to 3 cr . Students may, by prior agreement with an instructor, arrange for directed study of a geological topic. Prereq: Cons instr, and a 300 -level course in geology.

## HEALTH EDUCATION

See Physical Education.

## HISTORY <br> (College of Letters and Science)

Justus Paul, Chair.
Room 424, College of Professional Studies Building.
Phone: (715) 346-2334.
The Department of History offers several options in its freshman-level courses:

1. History 105, 106, 107, 108: a four-semester sequence which allows a student to concentrate on specific periods in European History: viz.
a. History 105-106: two-semester survey of Ancient and Medieval civilizations.
b. History 106-107: two-semester survey of MedievalEarly Modern civilizations, from late antiquity to the nineteenth century.
c. History 107-108: two-semester survey of Modern European civilization, from the sixteenth century to the present.
2. History 120, 130 (Minority and Ethnic Groups): See paragraph B. below.

## Notes:

1. Approval for graduation as a History major or minor requires an overall grade point ratio of 2.00 in all courses taken within the History major or minor, regardless of declaration of academic bankruptcy.
2. No more than six credits of History 399 may be applied toward the major or minor in History.
3. No more than three credits of Colloquium may be accepted toward the major or minor in History.
A. A major in History consists of at least 36 credits:
4. a. History 211-212.
b. Six credits selected from History 105, 106, 107, 108.
c. Six credits selected from History 215, 216, 219, 220, 225, 241, 253, 254.
5. Eighteen advanced credits selected from courses numbered 300 or above, including either 489 or 490 taken in the senior year. These 18 credits must be divided between at least two of the following three fields, with at least 6 credits in each of the two fields.
a. European History: 301, 302, 304, 305, 306, 307, 308, 309, 310, 311, 313, 315, 316, 320, 321, 322, $327,328,330,331,332,333,334,335,336,339$, 340, 342, 390*, 391*, 395*, 399*, 490*.
b. Non-Western History: 318-319, 337, 338, 341, $343,344,345,346,347,348,349,350,351,352$, 390*, 391*, 395*, 399*, 490*. Latin American Studies 423 may also apply toward this requirement.
c. United States History: 356, 357, 358, 359, 360, 361, 362, 363, 366, 367, 368, 369, 371, 372, 373, $374,377,378,379,380,381,382,383,384,385$, $386,387,389,390^{*}, 391^{*}, 395^{*}, 399^{*}, 490^{*}$.

* When appropriate to that area of History.
B. A major in History with a concentration in minority and ethnic studies consists of at least 46 credits:

1. History 120, 130, 211, 212.
2. Six credits from 105, 106, 107, 108.
3. At least 18 credits distributed as follows:
a. Nine credits from among History 342, 379, 380, 381, 382, 385, 386, 388.
b. Six credits from among History 313, 316, 327, $338,340,343,346,348,352$.
c. One credit of History 399, arranged with the adviser.
d. History 489 or 490.
4. At least 10 credits from the following but no more than six in any one category:
a. Fine Arts: Art 382, 388; Music 101.
b. Humanities: English 240, 280, 370, 371, 372, 382.
c. Social Science: Anthropology 339, 371; Geography 253; Political Science 315; Sociology 270, 305, 490 (when an appropriate subtitle is indicated).
C. A minor in History consists of at least 24 credits, including:
5. History 211-212.
6. Six credits selected from History 105, 106, 107, 108, 215, 216, 219, 220, 225, 241, 253, 254.
7. Minors who omit all European surveys must select three credits of European history at the 300-400 level.
8. Twelve advanced credits selected from courses numbered 300 or above.

## Courses in History

The * indicates that these topical courses may be repeated for credit under different subtitles.
105. Ancient History. 3 cr . Ancient Near East, Greece, and Rome.
106. Medieval History. 3 cr . Europe and the Mediterranean World, fourth to sixteenth centuries.
107. Early Modern European History. 3 cr. Sixteenth to nineteenth centuries.
108. Modern Europe. 3 cr . Nineteenth and twentieth centuries.
120. Ethnic Groups in Europe. 3 cr. Modern European ethnic and cultural groups; origins, accomplishments, current trends.
130. Racial and Ethnic Groups in the United States. 3 cr. Origins, accomplishments, current trends.
140. Indian Archives. 2 cr. (Experimental 1982-84) Nature and operation of archives for an understanding of history; the Wisconsin Indian experience utilizing manuscript collections and artifacts. Prereq: Cons instr.
211. United States to 1865.3 cr. Prereq: So st.
212. United States since 1865. 3 cr. Prereq: So st.
215. East Asia to $\mathbf{1 8 0 0 .} 3 \mathrm{cr}$. Prereq: So st.
216. East Asia since 1800. 3 cr. Prereq: So st.
219. Middle East to 1798.3 cr . Prereq: So st.
220. Middle East since 1798.3 cr. Prereq: So st.
225. Southeast Asia. 3 cr . Survey of the traditional cultures of Southeast Asia; the establishment of Western colonial

History
rule; the development of independent national governments; and decolonization. To be offered only in the Far East Program. Prereq: So st or consent of the chair of the History Department.
228/328. Resource Development and Policy in Europe. 2 or 3 cr . Development and utilization of natural resources in Europe during the modern period.
241. Problems in Russian Culture. 2 or 3 cr. Interpretive approach to Russian culture through the study of selected topics in the fine arts. Prereq: So st.
253. Colonial Latin America. 2 or 3 cr. European discoveries to independence, Prereq: So st.
254. Recent Latin America. 2 or 3 cr . Independence to the present. Prereq: So st.
274/374. United States Military History. 3 cr. Role of the military in American life; colonial period to the present. Credit may not be earned in more than one of these: History 274, 374; Military Science 212.
288/388. Wisconsin Indians. 3 cr . Origins, migrations, land cessions, removals, and other related topics affecting midwestern tribes. Credit may not be earned in both 288 and 388.
290. Comparative History. 2 or 3 cr. An integrative course for analysis of a selected problem, movement, or institution common to two or more periods of history. Topics and area will be announced in the timetable. Prereq: So st.
*291/391. Contemporary Historical Problems. 1, 2, or 3 cr. Topics dealing in contemporary history, to be announced. Prereq: So st.
${ }^{*} 300$. Selected Historical Problems, Analysis and Writing. 3 cr. Topics and area will be announced in the timetable. Prereq: 75 earned credits.
$301 / 501$. Western Culture. 3 cr . Development of the practical and fine arts, government, and human communication; prehistory through the Roman period.
$302 / 502$. Western Culture. 3 cr . Roman period to contemporary times.
304/504. Ancient Greece. 3 cr .
305/505. Ancient Rome. 3 cr.
*306/506. Studies in Antiquity. 2 or 3 cr. Topics and area will be announced in the timetable.
307/507. Medieval Europe. 3 cr. Fourth to twelfth centuries.
308/508. Medieval Europe. 3 cr. Twelfth to sixteenth centuries.
*309/509. Medieval Studies. 3 cr. Topic will be announced in the timetable.
310/510. Medieval Thought and Letters. 3 cr . Intelfectual history of Europe: fourth to fifteenth centuries.
311/511. Age of the Crusades. 2 or 3 cr . Eleventh century Europe, the Mediterranean, the crusades.
313/513. Women in European History. 2 or 3 cr . From the Middle Ages to the present.
$315 / 515$. The Renaissance. 2 or 3 cr . Fourteenth and fifteenth century Europe.
*316/516. The Reformation. 1, 2, or 3 cr . Topics in sixteenth and seventeenth century Europe will be announced in the timetable.

318/518. The Arab-Israeli Conflict. 3 cr. The origins, development, and consequences of the Arab-israeli conflict.

319/519. Oil and Politics in the Middle East. 3 cr . The impact of natural resource development, especially oil, in the modern Middle East.
*320/520. European Economic History. 3 cr. Topics and area will be announced in the timetable.
*321/521. European Social and Intellectual History. 3 cr Topics and area will be announced in the timetable.
*322/522. European Diplomatic History. 3 cr . Topics and area will be announced in the timetable.
*327/527. Recent World Politics. 3 cr. Selected topics in world history, 1919 to the present. Prereq: 118 and 212.
330/530. England to 1485. 2 or 3 cr .
331/531. England, 1485-1714. 2 cr .
332/532. England, since 1714.2 cr .
333/533. The French Revolution and Napoleon. 2 or 3 cr, Revolutionary period in Europe.
334/534. History of France since 1815. 2 or 3 cr.
335/535. History of Germany since $\mathbf{1 8 8 0} .3 \mathrm{cr}$.
*336. Selected Topics in the History of Poland. 3 cr . To be offered only in the overseas program. Topics will be selected by the instructor of the overseas campus.
337/537. Russian History and Civilization. 3 cr . Tenth to eighteenth centuries.
338/538. Russian History and Civilization. 3 cr . Nineteenth and twentieth centuries.
339/539. Eastern and Central Europe. 3 cr . To the Congress of Vienna.
340/540. Eastern and Central Europe. 3 cr. Nineteenth and twentieth centuries.
341. Problems in Russian Culture. 2 or 3 cr. Interpretive approach to Russian culture through the study of selected topics in the fine arts.
342. Polish Immigration to the United States. 3 cr. Historical assessment of Polish immigration from the 19th century to the present.
343/543. Africa South of the Sahara. 3 cr. Chiefly nineteenth and twentieth centuries.
344/544. The Mongols. 3 cr. Chinggis Khan; the Mongol Empire; impact on Eastern and Central Europe, Middle East, and Asia; 12th to 16th centuries.
$345 / 545$. China to 1644.3 cr.
$346 / 546$. China since 1644.3 cr .
$347 / 547$. Japan to 1854.3 cr .
$348 / 548$. Japan since 1854.3 cr .
$349 / 549$. Korea to $\mathbf{1 8 0 0} .3 \mathrm{cr}$
350/550. Korea since 1800. 3 cr .
$351 / 551$. Vietnam since 1800.3 cr .
352/552. Independent Mexico. 2 or 3 cr . Wars of independence to the present.
356/556. U.S.: Colonial Era to 1763. 2 or 3 cr.
357/557. The Revolution and the New Nation, 1763-1801, 2 or 3 cr .
358/558. Early National Period, 1801-1840. 3 cr.

359/559. Era of Controversy. 2 or 3 cr. United States, 18401860.

360/560. Civil War and Reconstruction. 2 or 3 cr. United States, 1860-1877.
361/561. United States, 1877-1920. 3 cr . Age of enterprise, world power, reform, and World War.
362/562. United States, 1920-1945. 2 or 3 cr. Normalcy, depression, New Deal, global war, and peace.
$363 / 563$. United States since 1945. 2 or 3 cr.
366/566. Resource Development and Policy in the United States. 3 cr . Development of the agricultural, mineral, forest, and water resources; conservation practices and policies since the Colonial era.
367/567. The American Frontier. 3 cr. Westward expansion to the Mississippi valley; frontier problems.
368/568. The American West. 3 cr. Westward' expansion; Mississippi valley to the Pacific.
*369/569. The American South. 3 cr. Topics will be announced in the timetable.
*371/571. United States Economic History. 3 cr. Topics and area will be announced in the timetable.
*372/572. United States Constitutional History. 3 cr. Topics and area will be announced in the timetable.
373/573. American Diplomacy. 3 cr . Ideology and practice of American diplomacy; emphasis on the twentieth century.
377/577. American Social and Intellectual History. 2 or 3 cr . То 1865.
378/578. American Social and Intellectual History. 2 or 3 cr . Since 1865.
379/579. Afro-American History. 3 cr . Contributions of the Afro-Americans to the United States to 1865.
380/580. Afro-American History. 3 cr. Contributions of the Afro-Americans to the United States since 1865.
381/581. Spanish Americans. 3 cr . Background and origins, special problems, contributions.
382/582. The North American Indian. 3 cr. Earliest times to the present.
383/583. American Labor History. 3 cr. American workers; colonial times to the present.
385/585. The American Woman. 3 cr. Social-intellectual history of the American woman; colonial period to the present.
386/586. Problems in Immigration, Ethnic, and Family History. 2 or 3 cr . Background, special problems, contributions of immigrant ethnic groups.
387/587. American Reform Movements. 2 or 3 cr . Ideals and institutions of reform, including concern for human rights, accompanying the social and cultural criticism of the emerging industrial order from the early nineteenth century.
389/589. Wisconsin. 2 or 3 cr . 1634 to the present.
*390. Comparative History. 2 or 3 cr. An integrative course for analysis of a selected problem, movement, or institution common to two or more periods of history. Topics and area will be announced in the timetable.
*391. Contemporary Historical Problems. 1, 2, or 3 cr. Topics dealing in contemporary history, to be announced.
*392. Topics in Christian Church History. 1, 2, or 3 cr. Topics and particular focus will be announced in the timetable.
395. Oral History. 1 to 3 cr . Juniors and seniors majoring in History may, by agreement with the chair of the History Department, arrange for special work in oral history, for which credit will be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project; may not be used in satisfaction of the general history requirement for a degree.
399. Special Work. Upper-class students majoring or minoring in history may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week or its equivalent, devoted exclusively to a special project.
489. Great Historians and the Sense of History. 2 or 3 cr . The great historians and their conceptions of history based on readings from their works. Open to students with senior standing majoring or minoring in history. Open to other seniors with the consent of the chair.
490. Selected Historical Problems. 2 or 3 cr. Open to students with senior standing majoring or minoring in history. Open to other seniors with the consent of the chair. The specific problem(s) to be treated will be announced in advance each semester.
*762. Readings and Problems in United States History. 3 cr. Reading seminar focused on a specific historical period and/or topic. A sub-title will be added each time the course is offered.
*764. Readings and Problems in European History. 3 cr . Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
*765. Readings and Problems in Russian History. 3 cr. Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
*766. Readings and Problems in Asian History. 3 cr. Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
*767. Readings and Problems in Latin American History. 3 cr. Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
*768. Readings and Problems in African History. 3 cr. Reading seminar focused on a specific historical period and/or topic. A subtitle will be added each time the course is offered.
775. Theories of History. 3 cr . Theory and methods in the writing of history; special attention to the methods, purposes, interpretations, ideas, and works of leading historians.
780. Historical Method. 3 cr . Securing and evaluatíng historical evidence; construction of historical papers based upon various kinds of source materials.
*782. Seminar in American History. 3 cr . The specific topic will be indicated each time the seminar is offered.
*784. Seminar in European History. 3 cr . The specific topic will be indicated each time the seminar is offered.
*786. Seminar in Non-Western History. 3 cr. The specific topic will be indicated each time the seminar is offered.

## 788. Seminar in North American Indians. 3 cr.

796. Independent Study. 3 cr. Planned study designed to enrich and supplement the student's preparation in his area of specialization; regularly scheduled conferences with a staff supervisor.
797. Thesis. 2 to 6 cr.

## HOME ECONOMICS (College of Professional Studies)

Mary Jo Czaplewski, Associate Dean of the College of Professional Studies and Head of the School of Home Economics.
Room 101, College of Professional Studies Building. Phone: (715) 346-2830, -2831:
A. A major in Early Childhood Education consists of 39 or 40 credits:

1. Required courses in Home Economics, 100, 101, (or Art 101), 166 or $367,261,262,351,360,362$, $364,368,460,462,466,468,486 ;$
2. Required for teacher certification, 33 to 36 credits: Education 100, 301, 308, 351, 381, 398; Sociology 305 (or alternative); Physical Education 231; Music 149 or 159 or demonstrated proficiency; Instructional Resources 331;
3. Required collateral courses, 18 to 22 credits: Communicative Disorders 266; English 274; Physical Education 252 or evidence of completion of Standard First Aid course; Psychology 110*; Sociology 101*: English or American Literature (3 cr)*; Physical Science course ( $3-5 \mathrm{cr}$ ).

- May be used toward fulfillment of the general requirements for a degree.
B. A major in Dietetics consists of:

1. Required courses in Home Economics 34 credits: $100,101,246,253,261,345,347,348,166$ or 367. 377, 455, 457.

2. Required collateral courses, $35-41$ credits: Biology 101 or 160, 285, 333; Chemistry 105 and 106, or 115 and 116; 220, 260; Economics 200; Business 380; Mathematics 50,100 (unless exempt).
3. Choice of one course each from (a), (b), and (c) below, eight or nine credits: (a) Business 370 or Psychology 345; (b) Computer Science 101, 102; or Economics 330; (c) Education 381 or Home Economics 393; (d) Business 210 is recommended.
Fulfilling the degree requirements in this dietetic program and completing an American Dietetic Association accredited internship, three year pre-planned work experience or appropriate master's degree plus a minimum of six months approved clinical experience will satisfy eligibility requirements for writing the registration examination and/or for membership in the American Dietetic Association.
C. A major in Fashion Merchandising consists of:
4. Required courses in Home Economics, 39-47 credits: 100, 101, 103, 151, 231, 233, 301, 302, 303, 322, 323, 329, 330, 333, 367. (395 - Field Experience [3 to 8 cr ] is also required unless the student has fulfilled an approved alternate experience.)
5. Required collateral courses: Art 103 or 106; Business 210, 330, 370 (or Psychology 345); Chemistry 101 or 104 or 105; Communication 210 or 217, plus three additional credits from Communication 330, 331, 332, 333, 334, 365; Economics 201.
6. Suggested electives: Home Economics 312, 324, 372, 373; Business 340, 380; Computer Science 101 or 102.
(Chemistry 101, 104, or 105 apply toward the science requirement for a degree. Students should take Economics 211, Psychology 110, and Sociology 101 to satisfy the social science requirement; and one Art History course to apply toward the humanities requirement.)
D. A major in Food and Nutrition is available in three options:
7. General Food and Nutrition Option:
(a) Required courses in Home Economics, 21 credits: 100, 101, 106 or 246, 211, 261, 166 or $367,372,486$.
(b) Eighteen credits selected from the following: Home Economics 253, 345, 347, 348, 373, 377. 381, 446, 455, 457.
(c) Required collateral courses, 32-34 credits: Biology 101 or 160, 285, 333; Chemistry 105 and 106 , or 115 and 116, 220, 260; Economics 200.
8. Experimental Food \& Nutrition Option:
(a) Required courses in Home Economics, 40 credits: 100,106 or $246,253,261,345,348$, $372,373,381,446,455,457$. The remaining eight credits will be selected from 101, 106 or 246, 211, 166 or 367, 486.
(b) Choice of one: Economics 330 (strongly recommended) or Home Economics 393.
(c) Required collateral courses, 32-34 credits: Bi ology 101 or $160,285,333$; Chemistry 105 and 106, or 115 and 116; 220, 260; Economics 200.
9. Food Service Management Option:
(a) Required courses in Home Economics: 100, 101,106 or $246,253,345,347,348,166$ or 367 , 261, 377, 449.
(b) Required collateral courses: $36-42$ credits: $\mathrm{Bi}-$ ology 101 or 160, 285, 333; Chemistry 105 and 106, or 115 and 116; Business 210, 211, 340, 370 or Psychology 345; Economics 200; Mathematics 51 and 100 unless exempt.
(c) Choice of one course each from (1) and (2), six credits: (1) Business 311, 330; Economics 345; (2) Computer Science 101, 102 or Economics 330.
(d) Choice of (1) or (2): (1) two or three credits, choice of one course: Home Economics 343, 446, 450, 455, 457; (2) (to meet American Dietetic Association requirements), 16 credits: Chemistry 220, 260; Home Economics 393, 455, 457.
Fulfilling the degree requirements in the Food Service Management d.2., above, and completing an American Dietetic Association accredited internship, three year preplanned work experience or appropriate master's degree plus a minimum of six months approved clinical experience will satisfy eligibility requirements to write the registration examination and/or membership in the American Dietetic Association.

Students in this major and in dietetics should take Biology 101 or 160, and Chemistry 105 or 115 to satisfy the science requirement for a degree; and Economics 200, Psychology 110, and Sociology 101 to satisfy the social science requirement.
E. A major in Home Economics Education consists of:

1. Required courses in Home Economics, 43 credits: 100, 101, 103, 106, 166, 211, 233, 253, 261, 323, 345, 367, 372, 373, 381, 486;
2. Required for teacher certification, 39-40 credits: Home Economics Education 290, 390, 391, 392, 394; Education 100, 351, 380, 386, and 16 cr of 398; for the Human Relations requirement - Sociology 305 or alternative.
3. Required collateral courses, 17-19 credits: Biology 101 or 160; Chemistry 101 or equivalent; Economics 100, 200; Psychology 110; Sociology 101 or Anthropology 112.
4. "General Requirements" to bring the total to 126 credits in addition to required Physical Education (total: 130 credits).
F. A major in Housing and Interiors consists of 49 credits:
5. Required courses in Home Economics: 100, 101, 151, 204, 211, 212, 233, 301, 309 or $310,313,316$, 333,166 or 367,372 or $373,395,411,412,430$.
6. Required collateral courses: Instructional Resources 110, 240; nine additional credits of studio or related art, including Art 103 and six credits of Art History.
Students in this major will take Economics 200, Psychology 110, and Sociology 101 to satisfy the social science requirement for a degree.
G. A minor in Food Service Management consists of at least 24 credits:
7. Required courses in Home Economics: 106, 253, 347, 348, 377.
8. Three credits selected from Home Economics 343, 345, 397, 449, 450.
Collateral courses: Business 210; and Business 370, 380, or Psychology 345.
H. A minor in Home Economics consists of 24 credits in Home Economics courses: 100, 101, 106, 211, 261, 302, 166 or 367,372 or 373 ; five or six credits in Home Economics electives.

## Courses in Home Economics

See also course listings under Home Economics Education in the next section.
100. Home Economics in Contemporary Society. 1 cr. Introduction to history and development of the home economics profession; investigation of related careers and the meaning of professional development.
101. Color and Design. 3 cr . Color and design in relation to personal and home problems. Two hrs lec, 2 hrs lab per wk. Credit may not be earned in both Home Economics 101 and Art 101.
The former 102 has been combined with 103.
103. Clothing Construction and Selection. 3 cr. Study and application of basic principles as related to aesthetics, fabric, style, and fit. One hr lec, four hrs lab per wk. Exemption possible through written and practical examinations.
106. Principles of Food Preparation. 3 cr. Introduction to basic physical and chemical properties of foods; interaction and reaction of foods in food preparation procedures; evaluation of prepared products. Two hrs lec, three hrs lab per wk.
107. Food and Man. 3 cr. Role of food and nutrition affecting man's food habits and beliefs; cultural, socio-psychological, and economic aspects.
151. Contemporary Nutrition. 1 cr. Nutrition principles as applied to contemporary problems in food choices and health. One two-hr lec-disc per wk. May be applied toward one credit of required Physical Education 101.
166. Family Relations and Individual Development. 3 cr . Influence of family on individual development and interpersonal relationships; personal decision making processes as applied to issues of family living. Prereq: Sociology 101 or con reg.
204. Rendering Techniques. 3 cr . Drawing, sketching, and color techniques in the areas of architectural exteriors, interiors, and furnishings to visually communicate design concepts. One hr lec, four hrs lab per wk. Prereq: 101 or Art 101.
211. Living Space Design. 3 cr. Matrix aspects, regulations, psychological, and economic factors of housing; design elements applied to space relationships and furnishings to create a satisfying environment. Prereq: 101 or Art 101.
212. Living Space Laboratory. 2 cr . Studio problems in housing and home furnishings; field trips. Four hrs lab per wk. Prereq: 211 or con reg.
233. Textiles. 3 cr . From fiber to finished fabric; recognition, testing, purchase, use, and care of textiles. Two hrs lec, two hrs lab per wk. Prereq: So st.
246. Food Science. 3 cr . Food composition, chemical and physical interactions and treatment in preparation. Two hrs lec, three hrs lab per wk. Prereq: Chemistry 220.
253. Nutrition. 3 cr. Dietary standards at different stages in the life cycle; nutrient requirements and interrelationships: digestion and metabolism of foods. Prereq: So st.
261. (Formerly Early Childhood Education 200) Child Growth and Development. 3 cr . Concepts and current research findings applied to the study of growth and development of normal children, from conception through adolescence within the context of the family. Prereq: Psychology 110.
262. (Formerly Early Childhood Education 100) Introduction to Programs for Children and Families. 3 cr. Historical analysis of the development of programs for children and families; roles played by individuals, agencies, and government; current program models and techniques for program evaluation. Prereq: 261 or Psychology 260.
301. Visual Merchandising. 3 cr . Application of design elements and principles in commercial display; various media and creative techniques explored. Prereq: 101 or Art 101.
302. Clothing and Man. 3 cr. Interaction of cultural, social, psychological, aesthetic, functional, economic, and technological factors in determining the meaning and use of clothing for the individual and society. Prereq: 101 and 102, or cons instr.
303. Fashion Promotion. 3 cr. Utilization of nonpersonal selling-activities such as advertising, publicity, illustration, fashion shows, and special events as a function of the fashion industry.
304. Rendering Techniques. 3 cr . Advanced problems in drawing, sketching, and color techniques in the areas of architectural exteriors, interiors, and furnishings. One hr lec. four hrs lab per wk. Prereq: 204.

309/509. History of Decorative Arts - Antiquity through the Eighteenth Century. 3 cr . Development of architectural styles, furniture, textiles, and accessories as related to interior environments. Prereq: 101 or Art 101.

310/510. History of Decorative Arts - Nineteenth and Twentieth Centuries. 3 cr . Development of architectural styles, furniture, textiles, and accessories as related to interior environments. Prereq: 101 or Art 101.
312. Structural Decorative Textiles. 3 cr . Application of design principles to two- and three-dimensional explorations in applique, canvas work, drawn work, hooking, and knotting techniques; historical as well as contemporary approaches. Prereq: 101 or Art 101.
$313 / 513$. Housing Design. 3 cr. Analysis and design of housing: historical styles, legal and financial aspects, basic construction, mechanical systems, and materials. Two hrs lec, two hrs lab per wk. Prereq: 211.

314/514. Architectural Systems. 3 cr. Analysis and design of basic construction systems, mechanical systems, lighting systems, and materials. Two hrs lec, two hrs lab per wk. Prereq: Instructional Resources 110.

316/516. Furniture and Accessory Design. 3 cr. Selection and design of furnishings based upon analysis of human factors, materials, aesthetics, and market availability; processes and resources. Two hrs lec, two hrs lab per wk. Prereq: 211 or cons instr.

322/522. Clothing Economics. 3 cr . Consumer clothing problems in relation to market conditions. Prereq: 102; Econ 200.
323. Applied Apparel Design. 3 cr. Study, construction, and fitting of a basic pattern using design principles as applied to flat pattern drafting; construction of a garment. One hr lec, four hrs lab per week. Prereq: 103, 233; or cons instr.
324/524. Tailoring. 3 cr . The application of tailoring techniques to the construction of a garment. One hr lec, four hrs lab per week. Prereq: 323 or cons instr.
329/529. History of Costume. 3 cr. The history of costume from ancient times to the present day.
330. Textiles and Clothing Retailing. 3 cr . Investigation of retailing factors, trade practices, and ethics involved in fashion merchandising. Prereq: Econ 201.
$333 / 533$. Textile Evaluation. 3 cr. Standard procedures and equipment for testing fabrics; emphasis on research techniques. One hr lec, four hrs lab per wk. Prereq: 233.
$343 / 543$. School Food Service. 2 cr. History and philosophy of school food service; legislation, trends, and educational roles; principles of organization and management of school food programs. Prereq: 106, or cons instr.
345. Meal Management. 3 cr . Advanced food preparation with emphasis on meal planning, management and service; food demonstration techniques. One hr lec, four hrs lab per wk. Prereq: 106 or 246; 253.
347/547. Organization and Management of Food Service. 4 cr. Principles of financial and production controls and the selection and the layout of equipment in food service systems. Prereq: 106 or 246 or cons instr.
348/548. Quantity Food Production. 3 cr . Theory and application of principles in quantity food preparation and service; quality control, sanitation, recipe standardization, portion and cost control; menu planning, work simplification, and merchandising of foods. One hr lec, six hrs lab per week. Prereq: 347 or con reg.
351. Elementary Nutrition. 3 cr . The food needs of the individual and the foods which supply those needs, with special emphasis on the food needs of children.
360/560. Infant and Toddier Development. 3 cr . Human development through $21 / 2$ years; implications for parents and early childhood education programs; observations. Prereq: Early Childhood Education 200, or Psychology 260, or cons instr.
$362 / 562$. Recent Advances in Child Development. 3 cr . Research, theories, programs, and techniques in the field of child development; application to programs for young children and their families. Prereq: Early Childhood Education 200 or Psychology 260 or cons instr.
364. (Formerly Early Childhood Education 300) Cognitive Development of Young Children. 4 cr . Introduction to current theories of cognitive development as applied to the selection and presentation of experiences for young children; development of concepts in social studies, science, mathe-
matics, and language arts curricula. Three hrs lec, 2 hrs practicum per wk. Prereq: 261 or cons instr.
367. Family Structure and Interaction. 3 cr. Family functions; variations in family organization and relationships; emphasis on applications of principles to decision-making by families in different stages of the life cycle. Prereq: Sociology 101 and Psychology 110, or cons instr.
368. (Formerly Early Childhood Education 210) Creative Development of Young Children. 3 cr . Developmental theories of creativity in children, ages birth through six; application of these concepts to the selection and presentation of curriculum experiences. Two hrs lec, 2 hrs practicum per wk. Prereq: 364 or cons instr.

372/572. Consumer Economics. 3 cr. Economics for the consumer; the art of consumer decision-making; issues affecting consumer spending, saving, and investing; the role of cooperatives and other institutions concerned with consumer welfare. Credit may not be earned in both Home Economics 372 and Economics 372.
373. Principles of Family Money Management. 2 cr. The importance and development of family financial planning with emphasis on budgeting, goals, values, and specific purchasing decisions. Prereq: Economics 100 or 200.

377/577. Institution Purchasing. 2 cr. Principles and methods of purchasing food in quantity. One hr lec, two hrs lab per week. Prereq: 106 or 246 , or cons instr.

381/581. Equipment for the Home. 2 cr. Selection, use, and care of household equipment. Lec and lab, four hrs per week. Prereq: 372 or 373 , or cons instr.
383/583. Institution Equipment and Layout. 2 cr. Selection, arrangement, installation, use and care of various types of equipment and furnishings for institutional food service departments. Lec and lab, four hrs per week. Prereq: 106, or cons instr.
391/591. Study Tour. 1 to 6 cr. Study tours to appropriate industries, museums, or facilities for students in various curricular areas in Home Economics. A subtitle will be added to describe the area each time the course is offered.
393. Educational Techniques in Dietetics. 2 cr . Concepts of educational planning; resources, methods, and techniques for teaching in dietetics; helping skills, including interviewing techniques. Prereq: 253 or cons instr.
395. Field Experience in Home Economics in Business. 3 or 4 cr . A supervised training work program in a cooperating off-campus establishment. One hour seminar per week for one cr, plus a minimum of forty student laboratory hours arranged for each additional cr. May be repeated for a total of eight cr. Prereq: 330 or cons instr.
397. Field Work. 1 to 8 cr . A supervised training work program in a cooperating off-campus establishment; work experience and supervision followed by an evaluation of individual progress.
399. Special Work. Upper class students majoring in Home Economics may, by agreement with the associate dean of the School of Home Economics, arrange for special out-ofclass work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.

411/611. Residential Interior Design. 3 cr. Application of technical and design theory to residential living space; total project development. Two hrs lec, two hrs lab per wk. Prereq: 212.
412/612. Contract Interior Design. 3 cr. Individual assigned problems in non-residential interior design; total project solutions, presentations, and evaluations. Two hrs lec, two hrs lab per wk. Prereq: 212.
415. Problems in Interior Design. 2 to 4 cr. Development of major project; client interaction, research, programming, space planning, visual concept, reports, and presentation. Two hrs lec per wk; additional hrs to be arranged. May be repeated for a total of 8 cr . Prereq: 212 and Instructional Resources 110, and cons instr.

417/617. Applied Textile Design. 3 cr. Experimentation using art principles in the creative design of two- and threedimensional textiles; printing, tie-dye, and batik as applied to wall hangings, furnishings, and apparel; emphasis on fiber, fabric, and usage interrelationships. Prereq: 101 or Art 101, and 233 or cons instr.
430. Principles and Practices of Interior Design. 3 cr. Professional design practices; business procedures, standards, resources, philosophies, ethics, and interior design careers. Two hrs lec, two hrs lab per wk.
444/644. Principles of Microwave Cookery. 1 cr. Basic principles and current research in microwave heating in the preparation and serving of food.

445/645. Food Preservation. 1 cr. Basic principles and current research applied to food preserved in the home.
446/646. Experimental Foods. 3 cr . Application of scientific principles and experimental procedures in food preparation. One hr lec, four hrs lab per week. Prereq: 106 or 246; Chem 101 or 105 or 115; Biol 333; or cons instr.
449/649. Food Service Administration. 3 cr. Consideration of advanced administrative problems through experience in food service; job analysis, labor policies, labor organization, personnel problems and financial control in relation to food service administration. Two hrs lec, two hrs lab per week. Prereq: 347, 348; or cons instr.
450/650. Social and Cultural Aspects of Food. 3 cr. Foods and food customs of various regional, national, and ethnic groups. Two hrs lec, three hrs lab per week.
451/651. Recent Advances in Food Systems Management. 3 cr . Recent developments, research, and legislation in the field of food systems management, reflecting educational, health, and business aspects of food systems. Prereq: 106 or 246,253 , or cons instr.
455/655. Diet Therapy. 3 cr . Application of nutrition principles in the study of the dietary treatment of certain conditions and diseases. Two hrs lec, two hrs lab per wk.
Prereq: 106 or 246, 253; Chemistry 260.
456/656. Community Nutrition. 3 cr. Nutrition from the public health viewpoint: illness prevention and health maintenance; analysis of various programs designed for improving community nutrition. One hr lec, minimum of four hrs concurrent field work per week. Prereq: 253, and 455.
457/657. Advanced Nutrition. 3 cr. Chemistry of foods and nutrition and the interrelationships in meeting the nutri-
tional needs in humans. Two hrs lec, two hrs lab per wk. Prereq: 106 or 246, 253; Chemistry 260; or cons instr.

458/658. (Formerly 757) Geriatric Nutrition. 3 cr. Nutritional problems of older individuals; changes in digestion, absorption, and utilization of food; nutritional requirements, dietary intakes, and effect of nutrition on the rate of biological aging; nutritional programs for the elderly. Prereq: 253 or 351 or cons instr.
460. (Formerly Early Childhood Education 400) Home, School, Community Agencies. 3 cr . Theoretical and philosophical analysis of processes involved in establishing positive relationships among home, school, and agency personnel. Prereq: 364 or cons instr.
462. (Formerly Early Childhood Education 410) Administration of Programs for Children and Families. 2 cr. Analysis of job responsibilities of administrators of programs for children and families; e.g., job selection, faculty development, role of regulatory agencies and use of resources. Prereq: 368 or cons instr.
464. (Formerly Early Childhood Education 420) Evaluation in Early Childhood Education. 2 cr. Use of diagnostic and screening tools for teaching in setting appropriate goals and designing experiences for young children. Prereq: 368 or cons instr.
466. Parent Child Relations. 2 cr . Research and theories describing the processes by which parents and children affect each other as individuals and as a family system. Prereq: 166 or 367 or cons instr.
468. (Formerly Early Childhood Education 497) Issues in Human Development. 1 or 2 cr . Identification and examination of issues in child and family development; application of developmental theory and current research to understanding issues. Students enrolled for two credits will participate in a practicum. Prereq: Sr st and major in Early Childhood Education; or cons instr.
486. Principles of Home Management. 2 cr. Emphasis on analysis and application of time and energy management concepts in relation to family living.
490/690. Workshop in Home Economics. 1 to 4 cr. A subtitle will be added to describe the area considered each time the course is offered.
700. Trends in Home Economics. 3 cr. New developments in the field of home economics; implications in research for individual and family needs.
701. Workshop in Home Economics. 3 cr. A subtitle will be added each time the course is offered. May be repeated for credit under different subtities.
702. Special Topics in Home Economics. 1-3 cr. One or more topics selected from current literature in the field of home economics. A subtitle will be added to describe the emphasis considered each time the course is offered. May be repeated for credit under different subtitles.
712. Perspectives in Related Art. 3 cr. Philosophy, methods, and trends in the field of art as it relates to an individual in home and society; individual reading and research problems in addition to media and technique exploration.
719. Seminar in Housing and Home Furnishings. 3 cr. Critical review of current research data.
721. Recent Developments in Textiles and Clothing. 3 cr . Recent trends in the field of textiles and clothing, with emphasis on related consumer problems.
729. Seminar in Textiles and Clothing. 3 cr. Critical review of current research data.
748. Recent Advances in Food. 3 cr. Developments in food and food science; legislation concerning food quality.
749. Seminar in Food and Nutrition. 3 cr. Critical review of current research data.
753. Recent Advances in Nutrition. 3 cr. Lectures, reports, and demonstrations dealing with recent developments in nutrition.
754. Vitamins and Minerals. 3 cr . Role of vitamins and minerals in human nutrition; research, and analysis of research. Prereq: 457, Biology 285 or cons instr.
755. Maternal and Child Nutrition. 3 cr. Research basis for recommended nutrient intakes during pregnancy, lactation, infancy, and the pre-school years; development of feeding behavior; nutritional assessment; prospective nutrition; problems requiring special nutritional counseling. Prereq: 253 or cons instr.
The former 757 is now 458/658.
765. Issues in Family Living. 2 or 3 cr . Investigation of current literature to determine issues affecting the nature and variability of the family.
767. Family Crises. 3 cr. Impact of crisis on family systems and individual members; support, referral techniques. Prereq: 367 or Soc 468/668 or equiv.
769. Seminar in Human Development and Family Relationships. 3 cr. Critical review of current research data.
771. Current Problems in Family Economics. 2 or 3 cr. The family role in the changing economy; providing for family financial security; individual problems.

## 779. Seminar in Home Management and Family Econom-

ics. 3 cr. Critical review of current research data.
794. Readings in Home Economics. 1-3 cr. Interdependent reading and review of current literature; written reports. Prereq: Cons instr.
796. Independent Study in Home Economics. 1 to 3 cr. Planned study designed to enrich and supplement the student's preparation in his area of specialization.
798. Research in Home Economics. 3 cr. Definition of problems and issues: critical examination of the research literature; planning of experimental investigation.
799. Thesis. 2 to 6 cr . Research project dealing with a specific problem in an academic area and culminating in a thesis.

## Courses in Home Economics Education

The Master of Science Degree-Home Economics Education is described in the section of the catalog on THE GRADUATE COLLEGE.
290. Directed Study: Observation and Participation. 1 cr. Individually planned to help the student better understand the role of the home economics classroom teacher; learner characteristics, and instructional materials. Field experience will include integration with disadvantaged and handi-
capped learners. One hr class or two hrs observation/participation every other wk.
381/581. Course Construction for Vocational Education. 2 cr. Curriculum development for post-secondary school programs; development of a course of study, instructional package, and/or unit of instruction.
382/582. Techniques for Teaching Vocational Education. 2 cr. Techniques and materials for instructional planning and teaching post-secondary vocational education courses.
383/583. Evaluation in Vocational Education. 2 cr. Techniques in the analysis of post-secondary vocational education programs; interpretation of evaluation data. Prereq: Cons instr.
385/585. Introduction to Vocational Guidance. 2 cr . Occupational opportunities and statutory requirements in vocational and technical education programs.
390/590. Adult Education. 2 or 3 cr. Philosophy, history, techniques, and experiences in teaching adults. One hr lec, one hr obs/participation as arranged.
391. Curriculum for Home Economics. 3 cr. Philosophy, curriculum, and evaluative materials for the home economics program K-12.
392. Techniques for Teaching Home Economics. 2 cr. Techniques, materials, and administration for home economics programs K-12.
394. Principles of Vocational and Technical. Education. 2 cr. Philosophy, organization, and administration of vocational and technical education; emphasis on programs in Wisconsin.

396/596. Cooperative Occupational Education Programs. 2 cr. Philosophy, organization, and teaching techniques for cooperative vocational programs. Prereq: Admission to the Professional Education sequence.
791. Curriculum in Home Economics. 3 cr. Curriculum trends, evaluation of home economics programs, principles of curriculum structuring and development of guides for teaching home economics.
792. Perspectives in Home Economics. 2 or 3 cr. Critical analysis of recent developments in home economics education; trends in curriculum development, techniques, and materials.
793. Evaluation of Home Economics Programs. 3 cr . Techniques in the analysis of occupational and homemaking programs.

## HONORS PROGRAM: HONORS COURSES

John P. Zawadsky, Coordinator.
Room 489A, Collins Classroom Building.
Phone: (715) 346-3340.
The Honors Program allows the superior student an opportunity for intellectual achievement which normally is not available in traditional classes.
The University Honors Program requires fifteen credits (five courses, each three credits) in specially constructed interdisciplinary honors courses. These courses may fulfill part of the degree requirements in the Social Sciences, Humanities, Mathematics, and Natural Science.

A Departmental Honors Program requires nine credits in honors courses at the junior-senior level.
A student may graduate as either a University Honors graduate or as a Departmental Honors graduate, or both.

## Courses in Honors

100. The Ancient Greek Experience. 3 cr. An interdisciplinary course dealing with the philosophy, literature, history, and art of Hellenic Greece, "the Golden Age of the Western World." May be applied toward the Humanities requirement for the Bachelor of Science degree.
101. The Ancient Asian Experience. 3 cr. An interdisciplinary course dealing with the philosophy, religion, literature, and art of ancient India, China, and Japan. May be applied toward the Humanities requirement for the Bachelor of Science degree.
102. Interdisciplinary Independent Study. 1 to 3 cr. Independent study of a problem, theme, individual, or period of special interest to the student may be arranged with two or more instructors from two or more academic departments from one or more colleges in the University with the permission of the chairs involved. May be repeated for a total of no more than three credits.
103. Interdisciplinary Astronomy, Mathematics, and Philosophy. 3 cr . Ideas and topics selected to trace the historical interdependence of astronomy, mathematics, and philosophy; examples from the Classical Greek period, the Renaissance, and the Twentieth Century, emphasizing the threads which connect these areas. May be applied toward the Humanities requirement for the Bachelor of Science degree.
104. Interdisciplinary Independent Study. 1 to 3 cr. (See 199 above.)
105. Black America-A Seminar in Historical and Cultural Perspectives. 3 cr . An interdisciplinary seminar dealing with the history and cultural development of Afro-Americans. May be applied toward the Humanities or the Social Science requirement for the Bachelor of Science degree, as determined by the focus of the student's work.
106. Interdisciplinary Independent Study. 1 to 3 cr . (See 199 above.)

## INDIVIDUALLY PLANNED MAJOR (IPM)

Mark Seiler, Coordinator.
Room 490, Collins Classroom Building.
Phone: (715) 346-3036.
The Individually Planned Major is intended to respond to the limited number of students whose educational objectives cannot be adequately realized through an existing academic program, but which may be achieved through unique combinations of existing offerings. It is intended to provide an opportunity for a student-designed program which is coherent and challenging. It requires early planning to ensure the availability and the integration of the courses which will constitute the major. It is not intended to permit students to package courses which have already been completed. The major must be approved before the end of the sophomore year.

## Requirements:

1. The student will meet the requirements for the Bachelor's Degree in the college in which the greatest number of credits within the major is offered.
2. At least forty credits within the degree must be in courses numbered 300 or above.
3. A minimum grade point ratio of 2.50 is required for entrance into the program.
4. A minimum grade point ratio of 3.00 is required in the major to graduate with the designated IPM.
The decision to enter upon an Individually Planned Major must be made no later than the second semester of the sophomore year, or upon the completion of no more than sixty-four credits excluding required physical education.
The major shall consist of a minimum of thirty-six approved credits taken from no fewer than two curricular areas, with a minimum of nine credits in each. At least twenty credits in the major must be in courses numbered 300 or above.
A proposal for the major is developed by the student in consultation with advisers from the departments in which the work is to be done. It includes a statement of the objectives of the program, its title, and a list of specific courses.
Full details may be obtained from the Coordinator.

## INSTITUTION MANAGEMENT

See Food Service Management under the Home Economics listing.

## INSTRUCTIONAL RESOURCES (College of Professional Studies)

Roy VanDreser, Coordinator.
Room 107, College of Professional Studies Building. Phone: (715) 346-2542.
Fulfiliment of the requirements for the Instructional Resources minor will satisfy state licensing requirements for both school librarianship and audio-visual building coordinator. Either license may be obtained individually by meeting the requirements explained below.
A. A minor in Instructional Resources consists of a minimum of 25 credits including:

1. Instructional Resources 211, 222, 223, 321, 325, 331, and 332; English 275 and 375.
2. Remaining credits to be selected from Instructional Resources 231, 322, 399.
B. In addition to the above: To satisfy requirements of the School of Education and for state certification, it is necessary to have two credits of Instructional Resources 395 as a part of Education 398, in the minor described above.
C. The requirements for a minor in library science and audio-visual building coordinator are met within the instructional Resources minor.
The sequence of Instructional Resources 222, 223, and 321 will meet the standard requirements for entrance into graduate Library Science work.
A state license for audio-visual building coordinator may be earned by completing Instructional Resources 331, 332, and 18 credits in Education.

## Courses in Instructional Resources

110. Fundamentals of Architectural Drafting. 3 cr . A basic study and development of architectural drafting skills; multi-view drawings, perspectives, conventions, lettering. detailing, inking, and printmaking.
111. The Learning Resources Approach in Education. 1 cr . The development of the Learning Resources concept; purpose of Learning Resources in education processes, its relation to the curriculum, and its contribution to the improvement of instruction on the elementary and secondary levels; functional operation of the concept through a study of the representative operating systems. Prereq: So st.
112. Introduction to Reference. 2 or 3 cr . Materials of reference that are the basis of a learning resources reference collection and service, and practice in their use as a source of information and an aid to study and teaching. Prereq: So st.
113. Building Learning Resources Collections. 2 or 3 cr . Problems and values in building library collections with full concern for all materials that have relevance to the needs of elementary and secondary schools. Prereq: So st.
114. Basic Photography. 3 cr. Fundamentals of black and white photography including camera, types of film, filters, the use of the light meter and darkroom; practical experience in contact printing, developing, and enlarging. Prereq: So st.
115. Presentation Techniques for Interior Design. 2 or 3 cr . A study of the techniques used for interior design communications with emphasis on graphics, materials production, and presentation. (A major project will be required for the third credit.)
116. General Cataloging and Classification. 4 cr . Theory and practice of cataloging and classification of book and non-book materials; emphasis on Dewey Decimal Classification and Sears Subject Headings, with an introduction to Library of Congress classification and subject headings. Prereq: 222 and 223, or cons instr.

322/522. Workshop in Learning Resources. 1 to 3 cr. Problems of the Learning Resources Center in elementary and secondary schools. A subtitle will be added to the title to describe the area each time the course is offered.
325. Organization and Supervision of the Learning Resources Center. 3 cr . The function of the Learning Resources Center in the school; responsibilities of the Center in carrying out the aims of the curricular and extra-curricular programs; problems of administration, budget, physical facilities, and standards of service. Prereq: 211 or cons instr.

331/531. Audio-Visual Media. 3 cr. Utilization of such media as pictures, slides, motion pictures, tapes, maps, radio, and television in the communication process; self-instructional laboratory work in the operation of equipment and the production of materials.
332. Local Production of Media. 3 cr. Techniques in the planning and production of such media as flannel boards, filmstrips, single concept films, motion pictures, and tapes, and multi-media presentations. Prereq: 231 or 331, or cons instr.
351. Advanced Photography. 3 cr. Advanced work in specialized areas of photography; experience in theoretical and practical aspects of the special areas selected. The student will register for three of the specialized areas listed below, and may repeat the course for an additional three areas. Prereq: 231 or cons instr.

Lab. 1. Close-up and macro-photography. Special problems, equipment, and techniques involved in photography at extremely close distances.
Lab. 2. Creative photography. Use of photographic processes as art forms; emphasis on self expressions.
Lab. 3. Slide photography. Various techniques of writing, designing, and producing a slide sequence in color and black-and-white; the color slide as an art form.
Lab. 4. Journalistic photography. Special techniques of producing photographic materials for new and other print media, such as the picture book.
Lab. 5. Salon photography. Production of photographic prints for display and as decorative objects.
Lab. 6. Portraiture. Techniques and equipment used in producing the photographic portrait; special lighting effects in portrait and illustrative photography.
Lab. 7. Color photography. Production of the color print; laboratory controls and their relationship to color quality.
Lab. 8. Photo lab techniques. Bleaching, toning, spotting, dodging, burning in development control, and their effects on prints.
Lab. 9. Wildlife and scientific photography. Equipment and techniques used in producing prints and slides or illustration and scientific study; emphasis on telephoto and extreme close-up photography including microphotography.
352. Introduction to Library Resources. 2 cr. Introduction to the systematic approach to subject materials, printed bibliography, references and materials of critical search, with practice in compilation of bibliographies using approved forms of descriptive bibliography and footnote usage. Open to sophomores with consent of instructor.
395. Practicum. 2 to 5 cr . Practical field experience in the operation of learning resources functions under the supervision of cooperating instructional media personnel. Practicum credits may be earned as part of the requirements for Education 398 (Student Teaching) or by other arrangements approved by the chair of the Learning Resources department and of the Education department.
396. Field Experience. 2 to 5 cr . Practical experience in a public, academic, or special library, in the operation of rearning resource functions, under the supervision of cooperating media personnel. Intended for students without a major or certification program in the School of Education, and not seeking Department of Public Instruction certification as public school media persons. Prereq: Consent of I.R. program coordinator.
399. Special Work. Students minoring in Learning Resources may, with the approval of the coordinator of Instructional Resources, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. A maximum of two credits for such work will be acceptable for the minor in Learning Resources.
711. Design and Utilization of Materials for Individualized Instruction. 3 cr . The application of the findings of research on learning and behavioral psychology to the design and utilization of materials and methods for individualized instruction. Each student will prepare, field test, and revise a short individualized learning sequence. Prereq: Psychology $375 / 575$ or equiv.
713. Instructional Design. 3 cr . The application of the principles of systems analysis and systems design in investigating instructional problems and their solutions; emphasis on the creative use of research data from learning psychology in solving instructional design problems.
721. Utilization of Television in the School. 3 cr . Techniques necessary for utilization of educational television programs in large group, small group, and individualized instruction; for the experienced teacher.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in his area of specialization; regularly scheduled conferences with an Instructional Resources faculty supervisor.

## INTERIOR DESIGN

See Housing and Interiors in the previous section under Home Economics.

## LATIN AMERICAN STUDIES

Robert J. Knowlton, Coordinator. Room 412, College of Professional Studies Building. Phone: (715) 346-2147.

A. A major in Latin American Studies consists of 34 credits:

1. A minimum of 24 credits shall be selected in at least three fields from among the following Latin American content courses. Anthropology 335 (Peoples of Central and South America), Art 382 (History of Latin American Art), Geography 301 (Middle America), 329 (South America); History 253, 254 (Latin America), 352 (Independent Mexico); Latin American Studies 100 (Introduction to Latin America), 399 (Special Work), 423 (Latin American Development), Spanish 332 (Latin American Civilization), 353, 354 (Survey of Spanish American Literature), 471 (20th Century Spanish American Literature), 493 (Specialized Studies in Spanish American Literature).
2. The remaining credits shall be in related, non-language courses chosen in consultation with the Latin American Studies coordinator.
3. In addition, four semesters of college Spanish beyond the first year level are required and may include Spanish 332, 353, 354, 471, 493.
B. A minor in Latin American Studies consists of 24 credits, at least 16 of which shall be selected from content courses and the remainder in related, non-language courses chosen in consultation with the Latin American Studies coordinator.
Eight credits of Spanish beyond the first year level are strongly recommended.

## Courses in Latin American Studies

100. Introduction to Latin America. 3 cr. A multi-disciplinary introduction to the history and culture of Latin America utilizing video tape lecture presentations, films, and slides, as well as live lectures and discussions. May be applied toward the Humanities requirement for a degree.
101. Special Work. Upper-class students majoring or minoring in Latin American Studies may, by agreement with the Latin American Studies coordinator, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
102. Latin American Development. 3 cr. An interdepartmental course in development, modernization, and institutions of Latin America; analysis of factors influencing development. A subtitle will be added to the title to describe the focus each time the course is offered. Prereq: Six hours of work in Latin American Studies content courses or consent of the Latin American Studies coordinator.

## LEARNING DISABILITIES

See the Curriculum for Certification in Learning Disabilities, described earlier in this catalog in the section on the College of Professional Studies.

## LEARNING RESOURCES

101. Effective Use of the Learning Resources Center. 1 cr. (Pass-Fail only) The services, personnel, and organization of the Learning Resources Center; the development of basic skills necessary for its use as an effective aid to study, research, and enjoyment.

## LEARNING RESOURCES CENTER

Burdette Eagon, Dean; Allen Barrows, Director of Public Services; Keith Lea, Director of Technical Services.
Theresa Chao, Periodicals Librarian; Arthur Fish, Documents Librarian; John Gillesby, Head Reference Librarian; Patricia Paul, Head Cataloger; Lois HuiZar, Head of Instructional Materials Center; Zofia Soroka, Bibliography Librarian.

## LECTURE-FORUM COURSE (College of Letters and Science)

Alan Lehman, Coordinator.
Room 424, Collins Classroom Building.
Phone: (715) 346-3032.
101, 102, 301, 302. Lecture-Forum Course. Each 1 cr. Lectures and discussions by members of the faculty and by lecturers from outside the University. The purpose of the course is to stimulate interest in the problems of the world and to aid students in orienting themselves to that world. Each semester's offering will center around a general theme, which will be indicated by a subtitle to be added each time the course is offered. The course may be taken for two semesters for a total of two credits; two hours per week; no grade will be given except "Pass" or "Fail"; attendance is required for "Pass."

## LIBRARY SCIENCE

See Instructional Resources.

## MANAGERIAL ACCOUNTING

The major in Managerial Accounting is described in the section headed Business and Economics earlier in this catalog.

## MATHEMATICS AND COMPUTER SCIENCE

Bruce Staal, Chair. Room D-356, Science Building.
Phone: (715) 346-2120.
Courses, and the minor, in Computer Science are listed under that titie earlier in this catalog.
A. A major in Mathematics consists of:

1. At least 34 credits in Mathematics including:
a. Mathematics $120,121,222,213$. It is strongly recommended that students complete Mathematics 213 before enrolling in 300 -level courses.
b. At least one course from each of (1) and (2):
(1) Analysis: Mathematics $323,324,327$;
(2) Algebra: Mathematics 330, 331.
c. At least one course from each of two areas:
(3) Geometry and Topology: Mathematics 340, 341, 342, 372;
(4) Probability and Statistics: Mathematics 351, 352;
(5) Applications: Mathematics 320, 322, 360.
d. The major must be completed with Mathematics courses numbered 300 or above, chosen from Mathematics 320, 322, 323, 324, 327, 330, 331, 335, $340,341,342,344,351,352,360,372,390,395$, and 499 (if approved by the department chair).
When a 390 course is offered, the department will specify which, if any, of the areas (3). (4). (5), above, the course may be used to satisfy; a student may not use a single 390 course to satisfy more than one of these areas.
2. Collateral requirement: Computer Science 112. This requirement may be waived by the chair upon demonstrated proficiency in a scientific programming language.
B. A major in Mathematics for teacher certification consists of:
3. At least 36 credits including:
a. Mathematics $120,121,213,222,331,340,351$, and 380.
b. At least one of these: Mathematics 323, 324, or 327.
c. Additional courses selected from 300 -level Mathematics courses to total at least 36 credits. Mathematics 330,335 , and 341 are strongly recommended.
4. Collateral requirement: Computer Science 101 or 112. This requirement may be waived by the chair upon demonstrated proficiency in programming.

To have a major in mathematics or a major in mathematics for teacher certification approved for graduation, a student must have a minimum grade point ratio of 2.00 in mathematics courses selected by the student to satisfy the requirements of the major. In addition, a grade of $C$ or better must be achieved in at least 15 of the credits required in courses numbered 300 or above. These standards apply regardless of a declaration of academic bankruptcy. The department chair may allow exceptions to these standards on a conditional basis.
C. A minor in Mathematics consists of 22 credits including Mathematics 120, 121, 222, and 213, and at least six credits in courses numbered 300 and above.
D. A minor in Mathematics for teacher certification consists of Mathematics 120, 121, 213, 331 or 335,351 or 355 , and additional credits selected from Mathematics 212, 323, 331, 335, or 380, and Computer Science 101/ 102 or 112, or 113 to total at least 24 credits.
E. Elementary.Education majors are required to take (1) Mathematics 229, 239, and 349 (non-center), or Mathematics 229, 239, 345 and 346 (center); and (2) Mathematics Education 229, 239, and 249 (non-center), or Mathematics Education 229, 239, and 346 (center).
F. A Master of Science in Teaching (Mathematics) is offered in cooperation with UW-Oshkosh. Information on the program may be obtained from the department chair.
General Requirements: All students in the College of Letters and Science and in the College of Natural Resources must satisfy the general mathematics requirement for a degree by completion of Mathematics 100, or 103 (when offered). Exemption will be granted if the student presents three units of high school mathematics with an average grade of $C$ or better in the aggregate.
Students in the College of Fine Arts and in the College of Professional Studies may satisfy the general mathematics requirement for a degree as described above, or may take one year of a foreign language.

## Definitions:

1. An acceptable high school unit in mathematics is one year's work (exclusive of "general" mathematics) with a grade of $C$ or better.
2. Level I preparation in mathematics consists, in most cases*, of two acceptable units of high school mathematics, and a suitable test score or credit in Mathematics 104 with a grade of C or better.
3. Level II preparation in mathematics consists, in most cases*, of three acceptable units of high school mathematics, and a suitable test score or credit in Mathematics 105.
4. Level III preparation in mathematics consists, in most cases*, of four acceptable units of high school mathematics, and a suitable test score or credit in Mathematics 106/108.
*A high school course in which the content covered is substantially less than that included in a traditional course will be evaluated accordingly.
The Mathematics Placement Test is given to all new freshmen as they enter the University. The test covers the mate-
rial found in the usual 4-year high school mathematics program (two years of Algebra, Geometry, and Pre-Calculus) and the scoring varies according to the amount of mathematics the student has taken. The test results, along with the student's high school record (mathematics courses and grades), are used to place the student at the appropriate level of mathematics at UW-SP. At some of these levels several courses are available and may be found by examining the prerequisites for these courses. Students who did not take the test at the time they entered the University may arrange for it at the department office.

## Course in Mathematics

See also course listing under Mathematics Education (next section).
050. Essentials of Beginning Algebra and Geometry I. 2 cr. Beginning algebra with emphasis on solutions and applications of linear equations and inequalities of one variable, and applications of informal geometry. Recommended for students whose placement test scores indicate a need for practice in fundamental mathematical skills. Credits do not count toward a degree.
051. Essentials of Beginning Algebra and Geometry II. 2 cr. Beginning algebra with emphasis on solutions and applications of quadratic equations of one variable; applications of informal geometry and graphing of linear equations of two variables. Recommended for students whose placement test scores indicate a need for practice in fundamental mathematical skills. Credits do not count toward a degree. Prereq: 050 or a suitable placement test score.
100. College Algebra and Right-Triangle Trigonometry. 2 cr . A beginning course in college algebra and trigonometry including the following: functions, solutions and graphs of linear and quadratic equations, inequalities and systems of equations; logarithm and exponential functions, right-triangle trigonometry. Prereq: 051 or a suitable placement test score.
102. Pre-calculus Algebra I. 2 cr. A functional approach to algebra. Topics include concepts, graphs, and properties of functions; inverse functions; algebraic and some transcendental functions. Prereq: 100 or a suitable placement test score.
103. Great Ideas in Mathematics. 4 cr . Traditional and contemporary mathematical thought from aesthetic, historical, and practical viewpoints. Open only to students who present less than Level I preparation, or with consent of the chair.
104. has been discontinued.
105. has been discontinued.
106. Trigonometry. 2 cr . The trigonometric functions, their basic properties and graphs; inverse trigonometric functions; identities; applications. Prereq: 100 or a suitable placement test score.
107 has been discontinued.
108. Pre-calculus Algebra II. 2 cr . Continuation of 102. Topics include techniques of graphing; conic sections; linear and nonlinear systems; arithmetic and geometric series; mathematical induction and the binomial theorem. Prereq: 102 or a suitable placement test score.
The former 110 is now 120.

The former 111 is now 121.
115. Mathematics for Economics and Business Analysis. 2 cr. Applications to business and economics; matrices and determinants; linear programming; mathematics of finance. Intended primarily for students of business and economics. Prereq: 100 (or 105) or a suitable placement test score.
116. Differential Calculus. 2 cr . Techniques and applications of differential calculus in biology, business, economics, psychology, and sociology. Not open to majors or minors in mathematics. 116 and 120 may not both be taken for credit. Prereq: 100 (or 105) or a suitable placement test score.
117. Integral Calculus. 2 cr. Techniques and applications of integral calculus in biology, business, economics, psychology, and sociology. Not open to majors or minors in mathematics. Prereq: 116.
The former 118 and 224 have been replaced by 115, 116, and 117.
120. (Formerly 110) Analytic Geometry and Calculus I. 4 cr Analytic geometry of the plane; differentiation and integration of algebraic functions with some applications. Prereq: Level III preparation or cons chair.
121. (Formerly 111) Analytic Geometry and Calculus II. 4 cr. Analytic geometry of the plane continued; differentiation and integration of transcendental functions; integration techniques; parametric equations and vectors; additional applications. Prereq: 120.
The former 212 is now 222.
213. Introduction to Linear Algebra. 4 cr. A transitional course to prepare students for upper level courses in mathematics; topics in the foundations of mathematics, including set theory, functions, finite induction, equivalence relations and partitions, order relations, countable and uncountable sets; introductory topics in linear algebra, including matrix algebra, Gauss-Jordan elimination, vector spaces, linear independence, determinants, orthogonality. linear transformations and their matrix representation, eigenvalues and eigenvectors, and applications; emphasis on reading and writing formal mathematical proofs. Prereq: 121.
222. (Formerly 212) Analytic Geometry and Calculus III. 4 cr. Introduction to solid analytic geometry; differentiation of functions of several variables; multiple integrals; infinite series; applications. Prereq: 121.
The former 224 and 118 have been replaced by 115, 116, and 117.
227. Mathematics for Early Childhood Education. 4 cr. Basic concepts of sets, logic, classification, number systems, and informal geometry; emphasis on mathematical concepts which can be applied in teaching children; may be applied toward the mathematics requirement for a degree; credit may not be earned in both 227 and 229. Prereq: Prior acceptance into the ECE program, or cons instr.
229. Foundations of Arithmetic for the Elementary School Teacher. 3 cr . Basic concepts of sets, logic, and number systems with special emphasis on structure. Two hrs lec and two hrs lab per week. Prereq: Level I preparation, or consent of the chair; and con reg in Math Ed 229. Not to be counted toward a Mathematics major or minor. Credit may not be earned in both 227 and 229.
239. Modern Algebra for the Elementary School Teacher. 3 cr. Topics selected from linear and abstract algebra with emphasis on'topics directly related to the elementary school mathematics curriculum. Two hrs lec and two hrs lab per week. Prereq: 229, and con reg in Math Ed 239. Not to be counted toward a Mathematics major or minor.
320/520. Differential Equations. 3 cr . An introductory course treating ordinary differential equations of the first and second order; linear equations with constant coefficients; solution in series; numerical approximations; systems of ordinary equations, with certain applications. Prereq: 222.
322/522. Vector Analysis. 3 cr. Vector algebra; vector calculus; gradient, divergence, and curl; divergence theorem. Stokes' theorem; line and surface integrals; introduction to tensor analysis; applications. Prereq: 222.
323/523. Foundations of Analysis. 3 cr. The elementary topological properties of the real line and the Euclidean plane; connectedness, compactness, continuous and uniformly continuous functions. Prereq: 213.
324/524. Complex Variables. 3 cr. Complex numbers, functions of a complex variable; power series; elementary functions; conformal and bilinear transformation; integral theorems; Taylor and Laurent expansions; theory of residues; applications. Prereq: 222, and 213 or cons instr.
$327 / 527$. Advanced Calculus. 3 cr . Advanced treatment of infinite series, partial derivatives, exact differentials, lines, surface and volume integrals, and generalized integrals. Prereq: 222, and 213 or cons instr.
330/530. Intermediate Linear Algebra. 3 cr. Canonical forms (congruence, equivalence, similarities); applications. Prereq: 213.
331/531. Abstract Algebra. 3 cr . Groups, rings, field number systems, Euclidean domains, and polynomials. Prereq: 213.
335/535. Number Theory. 3 cr. Primes, composites, and divisibility; congruences and residue classes; number-theoretic functions; Diophantine equations. Prereq: $\mathbf{2 1 3}$ or cons instr.
340/540. College Geometry. 3 cr. Foundations of geometry; survey of Euclidean geometry from various developmental approaches; introduction to non-Euclidian geometries. Prereq: 121.
$341 / 541$. Modern Geometry. 3 cr. Historical and logical development of geometries; introduction to various geometries using synthetic and coordinate methods; classification of geometries. Prereq: 213.
342/542. Projective Geometry. 3 cr. Projective spaces; finite projective planes; the projective plane over the real numbers; special configurations, affine planes. Prereq: 213.
344/544. Advanced Analytic Geometry. 3 cr. Advanced topics in plane and solid analytic geometry. Prereq: 121.
345. Geometry for the Elementary School Teacher. 2 cr. Metric and non-metric properties of Euclidean geometry: congruence, projective and topological transformations; other geometries. Prereq: 239 or con reg. To be taken prior to participation in the Elementary Education Center for the Study of Teaching. Not open to other students except with permission of the department chair. Not to be counted
toward a major or minor in mathematics. Credit may not be earned in both 347/547, and 345 or 349.
346. Mathematics for the Elementary School Teacher. 1 cr. Mathematical topics for elementary school teachers, including topics in geometry. Prereq: 345 or cons chair, and con reg in Mathematics Education 346. Open only to students participating in the Elementary Education Center for the Study of Teaching. Credit may not be earned in both $347 / 547$, and 345 or 349.
347/547. Geometry for Elementary and Junior High School Teachers. 3 cr . Metric and non-metric properties of curves, surfaces, and solids; plane construction; models of surfaces and solids; measurement of length, area, and volume; coordinate geometry of the plane; finite geometry. Prereq: Cons instr.
Credit may not be earned in both 347/547, and 345 or 349.
348/548. Measurement and Computation for the Elementary School Teacher. 3 cr . Theoretical and applied measurement including the metric system, computational algorithms and their suitability for use with calculators, and the relationship of these topics to the elementary school mathematics curriculum. Prereq: 229, and 239, or cons instr. Not to be counted toward a Mathematics major or minor.
349. Geometry for the Elementary School Teacher. 3 cr. Metric and non-metric properties of Euclidean geometry; basic concepts of non-Euclidean geometry; finite geometries. Two hrs lec and two hrs lab per week. Prereq: 239, and con reg in Math Ed 349. Not to be counted toward a Mathematics major or minor. Credit may not be earned in both $347 / 547$, and 345 or 349.
351/551. Probability and Statistics I. 3 cr . Probability from a set-theoretic viewpoint, probabilities in discrete sample spaces; random variables; properties of distributions. Prereq: 121.
352/552. Probability and Statistics II. 3 cr. Probability density functions; moments; Student T and chi-square distributions; correlation and regression; tests of hypotheses; applications. Prereq: 213, 351.
355. Elementary Statistical Methods. 4 cr. Fundamental concepts and techniques which underlie applications to the various disciplines, including descriptive statistics; averages; dispersion; random sampling; binomial, normal, Student's T , Chi-square, and F distributions; estimation and tests of hypothesis; linear regression and correlation; laboratory emphasis on sampling and applications. Three hrs lec, two hrs lab per week. Not to be counted toward a Mathematics major or minor, or the Mathematics major for teacher certification. Prereq: Level II preparation.

## 359/559. Probability and Statistics for the Elementary

 School Teacher. 3 cr . Concepts of probability and statistics with emphasis on topics related to the elementary school mathematics curriculum. Two hrs lec, two hrs lab per week. Prereq: 229. Not to be counted toward a Mathematics major or minor.360/560. Numerical Analysis. 3 cr. Differences and interpolation; function approximation; solution of equation; linear systems and matrices; numerical solutions of ordinary differential equations; least square approximation; quadra-
ture. Prereq: 213 and 222 and Computer Science 101 or 102 or 103, or consent of the chair.
372/572. Topology. 3 cr . Topologies; topological spaces, relative topologies; separation axioms; connectedness; compactness, metrizability; continuity. Prereq: 213.
380. Seminar in the History of Mathematics. 2 cr . The historical development of selected mathematical ideas. Prereq: 213.
385/585. Historical Topics for the Elementary School Teacher. 3 cr . The historical development of number systems, numeration systems, algebra, geometry, and its relationship to the elementary school mathematics curriculum. Not to be counted toward a Mathematics major or minor. Prereq: Cons instr.

390/590. Special Topics in Mathematics. 2 or 3 cr . Topic and number of credits will be announced when the timetable is published each semester. Prereq: Consent of the chair.
395. Seminar. 1 cr . Selected readings in mathematical subjects will be presented and discussed by participating faculty and students. May be repeated for a maximum of three credits under different topics. Prereq: Cons instr.
499. Special Work. Upper-class students majoring in Mathematics may, by agreement with the chairman, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Normally no more than three credits may be counted toward the Mathematics major.

## Courses in Mathematics Education

229. The Teaching of Elementary School Mathematics. 1 cr. Principles, aims, methods, and techniques of teaching elementary school mathematics with emphasis upon the teaching of arithmetic. Studies and discussion of current problems in education. Prereq: Con reg in Math 229.
230. The Teaching of Elementary School Mathematics. 1 cr . Principles, aims, methods, and techniques of teaching elementary school mathematics, with emphasis upon the teaching of algebraic concepts. Prereq: Con reg in Math 239.
231. The Teaching of Elementary School Mathematics. 1 cr . Principles, aims, methods, and techniques of teaching elementary school mathematics; field experience. Prereq: Mathematics 345 or cons chair, and con reg in Mathematics 346 . Open only to students participating in the Elementary Education Center for the Study of Teaching.
232. The Teaching of Elementary School Mathematics. 1 cr . Principles, aims, methods, and techniques of teaching elementary school mathematics with emphasis upon the teaching of geometry. Prereq: Con reg in Math 349.
375/575. A Laboratory Approach to Mathematics. 3 cr. The use of laboratory techniques for learning and teaching mathematics; planning, equipping, and maintaining a mathematics laboratory; designing instructional materials for the effective use of a mathematics laboratory. Intended for teachers with little previous training in use of a mathematics laboratory. Prereq: Cons instr.

390/590. Special Topics. 1 to 3 cr . Topic and number of credits will be announced when the timetable is published. Prereq: Consent of the chair.
399. Special Work. 1 to 3 cr . Upper-class students may arrange for special work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted to a special project. Prereq: Consent of the chair.

## MEDICAL TECHNOLOGY (College of Professional Studies)

D. Chitharanjan, Director.

Room B-152, Science Building.
Phone: (715) 346-2646.

## A Bachelor of Science Degree in Medical Technology consists of:

A. Academic Program: 101-103 credits (exclusive of required Physical Education) of on-campus study including the following:

1. General Degree Requirements of the College of Professional Studies.
2. Medical Technology-16-18 credits; Medical Technology 100/101, 200/201, 205, 300/301, 305, 315, 325, 335, 345, 355.
3. Chemistry- $25-27$ credits including the following: Chemistry 115, 116; (By special permission of the Director of Medical Technology, Chem 105 and 106 may, in some special cases, be accepted in lieu of this sequence. Also, permission from the chair of the Chemistry Department must be obtained to enter Chemistry 225 and 248); Chemistry 225, 226, 228, 248, 365, 369.
4. Biology-16 credits: Biology 160, 210, 285, 333.
5. Physics-6 credits - Physics 104 and 105.
6. Mathematics-4 credits: Mathematics 355.
7. For acceptance, and continued registration, as a candidate for this degree, a student must maintain an overall grade point ratio of 2.50 and a grade point ratio of at least 2.50 in mathematics and the sciences. Students not meeting this standard may petition the Director of Medical Technology for consideration.
8. Registration in summer session is required for the summer following the sophomore year.
B. Clinical Practicum: Upon completion of part A, the student must serve a 12 month clinical practicum in a hospital School of Medical Technology accredited by the Committee On Allied Health Education and Accreditation (CAHEA) in cooperation with the National ACcrediting Agency for Clinical Laboratory Sciences (NAACLS). The University has established affiliation agreements with the following Hospital Schools of Medical Technology for providing clinical practicum for the seniors. The Director and the Educational Coordinators of the Hospital School of Medical Technology are given courtesy appointment as University Adjunct Faculty:
Madison General Hospital: Dennis Stone, M.D., Audrey Tessmer, M.T.; St. Elizabeth's Hospital, Appleton: James Erchul, M.D., Robert Cihak, M.T.; St. Joseph's Hospital, Marshfield: C.N. Reyes, M.D., Virginia Narlock, M.T.; Theda Clark Memorial Hospital, Neenah: H. Cullen Henshaw, M.D., Thom Pharmakis, M.Sc.; St. Michael's Hospital, Stevens Point: A. Milano,


#### Abstract

M.D., Rodney Hoeth, M.T; Wausau Hospital Center: Kathy Belgea, M.D., Erla Schuett, M.T.; Waukesha Memorial Hospital: Robert Kascht, M.D., Gerianne Asti, MT.; West Allis Memorial Hospital: H. J. Conlon, M.D., Joyce Walsh, M.T. Before the degree is awarded, the Director of the Hospital School of Medical Technology must notify the University Registrar that the Clinical Practicum has been successfully completed by the student.


## Courses in Medical Technology

100/101, 200/201, 300/301. Forum. 0.5 cr per sem. Lectures and discussions by guest speakers, affiliated with the field of Medical Technology; topics varied on a monthly basis. Four 2-hour lecs, one written report required. Pass-Fail ONLY.
205. Clinical Orientation. 1 cr . Hospital introduction to laboratory techniques. Open only to students majoring in Medical Technology. Pass-Fail ONLY. Prereq: So st.
305. Hematology. 3 cr. Basic concepts in hematology, immunohematology, coagulation, and urinalysis. Two hrs lec, three hrs lab per wk. Prereq: Biology 285.
315. Clinical Microbiology. 2 cr . Isolation and identification of human pathogenic microorganisms and the relationships of these organisms to diseases. Prereq: Biology 333.
325. Clinical Parasitology. 2 cr. Morphology, life history, diagnosis, and control of the common animal parasites affecting man. Prereq: Biology 160. Not open to students with credit or con reg in Biology 362.
335. Clinical Instrumentation. 3 cr . Basic concepts, operation, and trouble shooting techniques of automated instrumentation; introduction to quality control, statistics, clinical quantitative analysis, computerization, clinical chemistry, and laboratory safety. Two hrs lec, three hrs lab per wk. Prereq: Chemistry 248.
345. Special Topics. 2 cr . Survey of chemotherapy, antibacterial and antiviral agents; biochemical aspects of immunology, and the mechanism of drug action. Prereq: Biology 281; Chemistry 228.
355. Immunology. 2 cr. Basic concepts in immunology, serology, immunohematology; antigenantibody and immunochemical reactions; measurement of immune response. Prereq: Biology 285.
The following is the description of the courses for the clinical internship year, for a total of 35 credits. These courses will be taught only at the hospital.
405. Clinical Chemistry I. 5 cr. Fundamental concepts of clinical biochemistry; measurement of specific substances in body fluids and feces by chemical analytical techniques, and correlation of results with disease states; principles of instrumentation; quality control.
406. Clinical Chemistry II. 4 cr . Continuation of 405; drug screening and identification.
415. Clinical Hematology I. 3 cr . Collection of blood specimens; fundamentals of blood and bone marrow composition, function, and cell morphology; normal morphology and pathologic conditions of cellular elements; laboratory techniques.
416. Clinical Hematology II. 4 cr. Continuation of 415; theories of blood coagulation and hemostasis; diagnosis of bleeding disorders with laboratory testing and correlation of these results with clinical history.
425. Clinical Microbiology I. 4 cr. Techniques and theories of medical diagnostic bacteriology; special emphasis on cultivation, identification, isolation, antimicrobial sensitivity of pathogenic bacteria; principles of sterilization, aepsis, and infection control.
426. Clinical Microbiology II. 4 cr. Continuation of 425; mycology, fungal contaminants, laboratory techniques; parasitology: division of medical protozoology, helminthology, and arthropodology; virology and Rickettsiae: characteristics of organisms, laboratory technique for isolation and identification.
435. Clinical Immunology-Serology. 2 cr. Antigens and antibodies; stimulation, production, and their interaction; im-muno-deficiency diseases; tumor and organ transplants; performance of qualitative and quantitative serological procedures.
445. Immuno-hematology: Blood Banking I. 2 cr. Application of the principles of immunology and genetics to grouping and crossmatching of blood and its components for transfusion; donor collection and processing; titration of selected antibodies and their relation to transfusion reactions and the use of transfusion therapy in disease conditions.
446. Immuno-hematology: Blood Banking II. 3 cr. Continuation of 445 .
455. Clinical Urinalysis. 2 cr . Theory of renal function in health and disease; renal function tests including chemical and microscopic examination of urine.
465. Clinical Nuclear Medicine. 1 cr. Basic concepts and instrumentation of nuclear physics; application of radioactive substances to the identification of diseases; study of isotopes of clinical importance and the methodology for their use.

## MICROELECTRONICS AND MICROCOMPUTER SYSTEMS

Allen G. Taylor, Coordinator.
Room B-203, Science Building.
Phone: (715) 346-2791.
An interdepartmental minor in Microelectronics and Microcomputer Systems consists of twenty-three credits:

Computer Science 110 or 112, 230, 305.
Physics 205 (Physics 104 and Mathematics 111, or Physics 250 may be substituted), 301, 302, and 390.
The Department of Physics and Astronomy administers the minor.

## MILITARY SCIENCE (College of Professional Studies)

Lieutenant Colonel Lonnie G. Hartley, Chair. Room 204, Student Services Building.
Phone: (715) 346-2885.
The Military Science Department offers to male and female students 24 credits in courses which may qualify the student for a commission as a second lieutenant in the U.S.

Army Reserve, National Guard, or in the Regular Army upon graduation. The Reserve Officers' Training Corps (ROTC) program is designed to develop leadership and management skills which are both desired in a civilian career and required for entry into the military service in a leadership capacity. ROTC provides the Army with over 70 percent of the officers commissioned annually. These officers provide an academic influence within the military and are the primary source of U.S. Army leadership available in time of emergency. ROTC instruction may begin in any semester. It is undertaken concurrently with the individual's undergraduate curriculum, and it may overlap graduate study. A detailed Military Science orientation or answers to specific questions are available upon request.
The four-year curriculum provides a progressive course of study in leadership and management, and is divided into a two-year basic course (Freshman: MS I; and Sophomore: MS II) and a two-year advanced course (Junior: MS III: and Senior: MS IV).
The voluntary basic course involves no obligation either for military service or for continuation in the Military Science program. It includes an optional concentrated weekend Leadership Laboratory providing 1 credit each semester.
The advanced course is also voluntary, but a three-month to three-year active duty obligation and an obligation for Reserve component duty are incurred. Active duty or Regular Army commissions may be earned on a competitive basis. National Guard/Reserve Army commissions can also be earned and/or guaranteed upon acceptance into the advanced course. Advanced course students are paid tax-free subsistence allowance of $\$ 100$ per month for up to ten months of both school years. All students in the advanced course must attend a six-week ROTC advanced summer camp, usually between the junior and senior year. While at the camp, the student receives $\$ 16.00$ per day, food, housing and round-trip travel expenses.

Advanced placement into the ROTC advanced course may be obtained by students (1) with JROTC experience, (2) completing a six-week ROTC basic summer camp, (3) completing National Guard or Army Reserve basic training, or (4) having veteran status. Veterans may receive all ROTC financial benefits in addition to their GI Bill benefits. Both male and female students who have at least two years of undergraduate and/or graduate study remaining at UW-SP may qualify for this program. Questions on advanced placement should be addressed to the department chair.
Three-year, two-year, and one-year scholarships are available for outstanding ROTC students. Tuition, fees, books, and laboratory expenses plus $\$ 100$ per month for up to ten months of each school year are included in each scholarship. Acceptance of a scholarship incurs an obligation of 4 years on Active Duty after completion of a student's degree.

Air Assault, Airborne and Ranger Training may be available to outstanding advanced program participants. The wide variety of activities in which ROTC students may participate includes mountaineering, survival, cold weather indoctrination, rappelling, water survival, orienteering, field exercises, intramurals, social events, marksmanship, travel to military installations, drill, and others.

ROTC Basic Course: Military Science 101, 102, 211 and either MS 213 or History 274/374. Optional leadership laboratories which may be taken concurrently with the appropriate class are MS 103, 104, 215 and 216 (all 1 cr ).
ROTC Advanced Course: Military Science 301, 302, 451 and 452. Leadership laboratories are mandatory for students pursuing a commission and are included in the class schedule.
A minor in Military Science consists of 20 credits in Military Science courses. This optional program is available to all students, whether or not they are ROTC cadets:

1. Basic Course: Military Science 101, 102, 211; and History 274 or 374. Placement credit for MS 101, 102, and 212 may be available for veterans and students who have participated in the six-week basic course, National Guard and Reserve Training. Specific questions on requirements should be directed to the chair of the department.
2. Advanced Course: Military Science 301, 302, 451, and 452. A prerequisite for MS 301 is successful completion of the Basic Course, or advanced placement through ROTC participation, or completion of a six-week Basic Camp offered during the summer, or through advanced placement based on veteran's status. Specific questions on credit for the Basic Course should be directed to the chair of the department.
No more than twelve Military Science credits may be counted toward the "One Hundred Credit Rule" for students in the College of Letters and Science.

## Courses in Military Science

101. Introduction to Military Science. 1 cr. Types of activities in which Army officers are involved: theory, principles and fundamentals: emphasis on practical work. Specific sub-topics vary, but may include mountaineering. marksmanship, rappelling, water safety, first aid, personal defense, physical fitness, leadership, survival and cold weather indoctrination.
102. Introduction to Military Science. 1 cr. Continuation of 101.
103. Leadership Laboratory. 1 cr. (Optional) Weekend offcampus, structured orientation to and participation in outdoor, physical skills, preceded by on-campus introductory class; orientation toward summer-fall outdoor environment; specific subjects will be announced in the timetable. Prereq: Con reg in 101.
104. Leadership Laboratory. 1 cr. (Optional) Same as 103; orientation toward winter outdoor environment. Prereq: Con reg in 102.
105. Orienteering and Basic Survival. 2 cr. Fundamentals of map reading and land navigation, with approximately 16 hrs of outdoor field orienteering; basic wilderness sur-vival-techniques, theories, and psychological factors. (This course may be used to satisfy one cr of required Physical Education.) Prereq: 101, or 102, or cons chair.
106. Wilderness Survival. 2 cr. Study and practical application of the mental and physical endurance stresses encountered in an emergency, remote setting; a late-semester 3 or 4 day wilderness exercise included. This course
does not meet the requirements for a Military Science minor. Prereq: 211 or cons chair.
107. Leadership Laboratory. 1 cr. (Optional) Same as 103; required performance in organizational leadership positions. Prereq: Con reg in 211 or cons chair.
108. Leadership Laboratory. 1 cr. (Optional) Same as 104; required performance in organizational leadership positions. Prereq: Con reg in 212 or cons chair.
109. Leadership and Management. 3 cr. Principles, objectives, and techniques; functions of the leader, and special problems in military leadership; emphasis on problem analysis and decision making, delegation and control, planning and organizing, and interpersonal skill required for effective management. Field trips required. Prereq: Cons chair.
110. Command and Control. 4 cr . Techniques of directing and coordinating individual and team tactics; functions of various branches in their support of the Army and its field forces; analysis of military communications system; application of the principles of leadership to the problems of platoon leaders and company commanders; development of potential by planning, preparing, presenting and otherwise participating in practical instruction.
111. Operations, Logistics, and Administration. 4 cr . Advanced instruction in management skills; processes for arriving at decisions and translating them into plans and orders; principles of administration and logistics; practical experience in the management of personnel through performance as a cadet officer in the planning and supervision of cadet activities. Prereq: 302 or cons chrmn.
112. Military Law. 2 or 3 cr . ( 2 cr option excludes laboratory, and is not open to students pursuing a commission.) Fundamental concepts of U.S. Military Justice; requirements for a separate body of law for the military; organization, historical evolution, and procedures of the Uniform Code of Military Justice; practical experience as in 451. Prereq: 451 or cons chrmn.
113. Military Law, Professionalism and Ethics. 2 or 3 cr . (Experimental 1982-84) Fundamental concepts of U.S. Military Justice; historical evolution, need for, organization, and procedures of the Uniform Code of Military Justice; introduction to and understanding of professional soldier's responsibilities, need for ethical conduct, and improved ethical decision-making skills. Prereq: 451 or cons chair.

## MUSEUM TECHNIQUES (College of Letters and Science)

Charles A. Long. Adviser.
Room 428, College of Natural Resources Building.
Phone: (715) 346-2858.
The minor in Museum Techniques is interdepartmental and is administered by the Department of Biology.
A minor in Museum Techniques consists of a minimum of 22 credits:

1. Biology 322.
2. Art 101 or 102 ; and 103 or 106; or Instructional Resources 231 and Art 101 or 102.
3. Either a or b.
a. Anthropology 290 and 340 S.
b. One or more of these: Biology 342, 360, 372, 374, 376, 377, 378.
4. The remaining credits to be selected from Anthropology 111; Biology 305, 379, 388; Communication 330, 400; Computer Science 102; Geology 200, 339; Instructional Resources 231; Natural Resources 369.


## MUSIC

## (College of Fine Arts)

Charles O. Reichl, Chair (-83); Donald E. Greene, Chair Designate (83-).
Room B120, College of Fine Arts Building.
Phone: (715) 346-3107.
Special music scholarships are available to high school seniors with outstanding talent in musical performance. These scholarships are awarded each spring on the basis of special auditions held before miembers of the Music faculty. Information as to the date, time, and other details may be obtained from the chair of the Music Department.
The following organizations are open to all students, on either a credit or an extra-curricular basis. Band, Brass Choir, Jazz Band, Choir, Madrigals, Opera Workshop, Oratorio Chorus, University Singers, Orchestra, Small

## Ensembles.

## NOTE:

Music majors are required to register for two credits of large ensemble every semester (normally, a total of 16 credits, with exceptions for recital, student teaching, and transfer). Small ensembles are available for students who wish additional experience in the specialty literature. Permission to register, placement, and exceptions to the requirements are subject to the approval of the instructor and the chair.

## A. Bachelor of Music Degree.

All general requirements for the Bachelor of Music Degree in the College of Fine Arts will be completed along with the following credits in Music.

[^9]with insufficient background must take Music 109 as prerequisite.
2. Theory electives, four credits: Music 313, 314, 315, 316, 413, 414.
3. Applied music, 12 credits. (Piano, when not the major applied area, must be taken for four credits or to grade III, whichever is reached first.) A proficiency grade of $V$ must be earned on the major instrument before graduation.
4. Required Ensemble, 16 cr . (See NOTE, above.)
5. Music literature, 14 credits: Music 220, 221, 320, 321, and six credits of electives.
6. Music electives from at least two of the following groups, eight credits.
a. Music 310, 410.
b. Music 150 through 159.
c. Music 160 through 177.

## B. Bachelor of Music Degree in Applied Music.

All general requirements listed for the Bachelor of Music Degree in the College of Fine Arts will be completed with the following exception. The Natural Science requirements (VII) may be reduced to five credits with two acceptable units of high school science, or may be eliminated with three acceptable units of high school science. An acceptable unit is one year of work with a grade of $C$ or better.

In addition to the general requirements, 80 to 82 credits of music are required in one of the following options:

1. Piano. Students admitted by audition only; they must reach a proficiency of Grade VIII in piano, and give a half recital in the junior year and a full recital in the senior year.
a. Applied music, 28 credits: Music 160, four credits; music 260,360 and 460 , twenty-four credits.
b. Theory, 22 credits: Music 110, 111, 112, 113, 210, 211, 212, 213; and six credits from $310,313,314$, 315, 316, 317, 410, 411. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Music literature and history, 14 credits: Music 220, 221, 320, 321, 420, 421.
d. Piano pedagogy, two credits: Music 490.
e. Required ensemble, 16 credits: Must include at least two credits in Music 328 or 429, for which eligibility will be determined by the instructor and the coordinator for accompanying. (See NOTE, above.)
2. Organ. Students admitted only by a piano audition before the organ and piano faculty; Grade IV proficiency in piano is required. A half-recital is required in the junior year, and a full recital (including at least three memory selections) in the senior year. Organ proficiency of Grade VIII is required for performance in the senior recital and for graduation.
a. Applied Music, 28 credits: Music 161 (four credits); Music 261, 361, 461. (24 credits).
b. Theory, 22 credits: Music 110, 111, 112, 113, 210, 211, 212, 213, 310, and 410 or 411.
c. Music Literature and History, 14 credits; Music 220, 221, 320, 321, 324, 325.
d. Service Playing Techniques, two credits: Music 344.
e. Required ensemble, 16 credits (choral area preferred). (See NOTE, above.)
3. Voice. Students admitted by audition only; by the end of the sophomore year they must achieve a proficiency grade of III in piano and IV in voice. A-half recital is required in the junior year and a full recital in the senior year. A proficiency grade of VII in voice must be reached for presentation of the senior recital and graduation.
a. Applied music, 28 credits: Music 162, four credits; Music 262, 362, and 462, twenty-four credits.
b. Theory, 22 credits: Music 110, 111, 112, 113, 210, 211, 212, 213, 317; and four credits from 310, 313, 314, 410, 411. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Music literature and history, 14 credits: Music 220, 221, 320, 321, 323, 422.
d. Vocal pedagogy, two credits: Music 491.
e. Required vocal ensemble, 16 credits. (See NOTE, above.)
f. Opera Workshop, 2 credits: Music 390.
4. String instrument. Students admitted by audition only; they must reach a proficiency grade of Ill in piano and VII in the major instrument, and give a senior recital.
a. Applied music, 28 credits: Music 163 through 166, four credits; Music 263 through 266, 363 through 366 , and $463^{\prime}$ through 466, twenty-four credits.
b. Theory, 28 credits: Music 110, 111, 112, 113, 210, $211,212,213,315,317$; and eight credits from 310 . $313,314,316,410,411$. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Music literature and history, 11 credits: Music 220, $221,320,321$, and 426 or 427.
d. String Pedagogy, two credits: Music 495.
e. Required ensemble, 16 credits. (See NOTE, above.)
5. Wind instrument. Students admitted by audition only; they must reach a proficiency grade of III in piano, and give a senior recital.
a. Applied music, 28 credits: Music 167 through 176, four credits; Music 267 through 276, 367 through 376, and 467 through 476, twenty-four credits.
b. Theory, 28 credits: Music 110, 111, 112, 113, 210 , 211, 212, 213, 315, 317; and eight credits from 310, $313,314,316,410,411$. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Music literature and history, 11 credits: Music 220 , $221,320,321$, and 426 or 427.
d. Brass or woodwind pedagogy, two credits: Music 492 or 493.
e. Required ensemble, 16 credits. (See NOTE, above.)
6. Percussion. Students admitted by audition only; they must reach a proficiency grade of III in piano, a grade of VI in percussion, and give a senior recital.
a. Applied Music, 28 credits: Music 177, (four credits); Music 277, 377, and 477, (24 credits).
b. Theory, 28 credits: Music 110, 111, 112, 113, 210, $211,212,213,315,317$, and eight credits from 310 , $313,314,316,410,411$. Placement examination is required; students with insufficient background must take Music 109 as prerequisite.
c. Music Literature and History, 8 credits: Music 220, 221, 320, 321.
d. Percussion Pedagogy, two credits: Music 494.
e. Required ensemble, 16 credits. (See NOTE, above.)
7. Theory/Composition. Students in this program must maintain at least a B average in the first two years of music theory to be considered candidates for a degree in Theory/Composition; they must reach a proficiency grade of IV in piano and V in a major instrument.
a. Applied music, 14 credits: Music 160 through 177 , 260 through 277, 360 through 377, and 460 through 477 in any area.
b. Theory, 44 credits: Music 110, 111, 112, 113, 210, $211,212,213,310,313,314,315,316,317,410,411$, 413,414 . (Theory-oriented majors will elect a senior year project rather than Music 413 and 414.) Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Class applied music, eight credits: Music 152 through 158.
d. Music literature and history, 8 credits: Music 220 , 221, 320, 321.
e. Required ensemble, 16 credits. (See NOTE, above.)
8. Classical Guitar. Students admitted by audition only; they must reach a proficiency grade of III in piano and VIl in guitar. They must also give a senior recital and submit a research paper on an historical, theoretical, or pedagogical topic dealing with the guitar.
a. Applied music, 28 credits: Music 181, 4 credits; Music 280, 380 and 480, 24 credits. Music 149 (Class Guitar) should be waived in the audition and cannot count toward the 28 credits of applied music.
b. Theory, 28 credits: Music 110, 111, 112, 113, 210, $211,212,213,315,317$; and eight credits from 310 , $313,314,316,410,411$. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
c. Music history and literature, 11 credits: Music 220, 221, 320, 321, 326.
d. Small ensemble, 6 credits: Music 131, 231, 331, 431 (Guitar Ensemble) or Music 135, 235, 335, 435 (Renaissance Consort).
e. Required (large) ensemble, 16 credits. (See NOTE, above.)
9. Jazz Guitar. Students admitted by audition only; they must reach a proficiency grade of III in piano and VII in guitar. They must also give a senior recital and have performed in at least one public concert with the University Jazz Ensemble.
a. Applied Music, 28 credits: Music 181, 4 credits; Music 281, 381 and 481, 24 credits. Music 149 (Class Guitar) should be waived in the audition and cannot be counted toward the 28 credits of applied music.
b. Theory, 32 credits: Music 110, 111, 112, 113, 192, 210, 211, 212, 213, 315, 317, 417; and eight credits from 193, 310, 313, 314, 316, 410. Placement examination required; students with insufficient background must take Music 109 as a prerequisite.
c. Music history and literature, 11 credits: Music 220, 221, 320, 321, 329.
d. Small ensemble, 6 credits: Music 131, 231, 331, 431 and/or 139, 239, 339, 439.
e. Required (large) ensemble, 16 credits. (See NOTE, above.)

## C. Bachelor of Music Degree in Music Literature.

Students in this program must have a cumulative GPR of at least 3.0 by the end of the sophomore year to be considered candidates for the degree. Senior candidates will take an oral examination administered by the Music History faculty during the first two weeks of the second semester in their senior year. This is required for graduation in this degree area. All general requirements listed for the Bachelor of Music Degree in the College of Fine Arts will be completed along with the following credits in Music.

1. Theory, 16 credits: Music 110, 111, 112, 113, 210, 211, 212, 213. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
2. Theory electives, four credits: Music 310, 313, 314, 315, 316, 410, 411.
3. Applied music (major), 12 credits: A proficiency grade of $V$ must be earned on the major instrument before graduation. If piano is not the major instrument, a proficiency grade of IV on piano is required, in addition to the proficiency on the major instrument.
4. Required ensemble, 16 credits. (See NOTE, above.)
5. Music literature, 24 credits: Music 220, 221, 320, 321 (3 cr option); and 12 credits from among 323, 326, 329, 426, 427.
D. Bachelor of Music Degree for Teacher Certification.

All general requirements for the Bachelor of Music Degree in the College of Fine Arts will be completed along with the following credits in Music, Music Education, and Education.
*A proficiency of Grade V must be earned on the major instrument before student teaching. A piano proficiency of Grade IV is required for the vocal emphasis and a piano proficiency of Grade III is required in the instrumental emphasis.
**When piano is not the major applied area, it will be the minor applied area.

## D (1) Instrumental Emphasis.

1. Education, 22 credits: Education 100, 351, 355, 380, 381, 398.
2. Music Education, five credits: Music Education 201, 324, 326.
3. Music, 69 credits:
a. Theory, 16 credits: Music 110, 111, 112, 113, 210, 211, 212, 213. Placement examination is required; students with insufficient background must take Music 109 as a prerequisite.
b. Orchestration, two credits: Music 315.
*c. Applied Music, 10 credits.
d. Music Literature, 8 credits: Music 220, 221, 320, 321.
e. Class Applied Music, 10 credits: Music 152 and 153 are required. Students with String emphasis may substitute, for 152 and/or 153 on a credit for credit basis, Music 495 or Music Education 384 or 385.
f. Music 150 (Class Voice for Instrumentalists) 1 cr.
g. Conducting, four credits: Music 317, 395.
h. Required ensembles, 14 credits.
i. Music electives, five credits.

Students fulfilling the requirements for a Bachelor of Music Degree for teacher certification with Instrumental Emphasis may also receive vocal certification by completing the following courses:

Music 341 ( 4 cr.); 162-262 (6 cr.); 180 (2 cr.); 394 (2 cr.).
Music Education 323, 325, 382 (2 cr. each).
In addition, a proficiency of Grade IV must be earned in piano, and a portion of the student teaching must be completed in vocal music.

## D (2) Vocal Emphasis.

1. Education, 17 credits: Education 100, 380, 381, 398.
2. Music Education, seven credits: Music Education 201, 323, 325, 382.
3. Music, 65 credits:
a. Theory, 16 credits: Music 110, 111, 112, 113, 210, 211, 212, 213. Placement examination is required; students with insufficient background must take Music 109 as a prerequisite.
b. Vocal Pedagogy, two credits: Music 491.
*c. Applied Music (major), 10 credits: Voice, piano, or organ.
**d. Applied Music (minor), six crédits.
e. Music Literature, 8 credits: Music 220, 221, 320, 321, 322.
f. Conducting, four credits: Music 3.17, 394.
g. Required ensemble (major), 14 credits.
h. Music electives, five credits.

Students fulfilling the requirements for a Bachelor of Music Degree for teacher certification with Vocal Emphasis may also receive instrumental certification by completing the following courses.

Music 342 or 343 ( 4 cr.); Music 163-168, 263-268 (6 cr.);
Class Applied Music (152 and 153 are required) ( 10 cr .). 395 (2 cr.)

Music Education 324, 326 (2 cr. each).
In addition, a proficiency of Grade IV must be earned in the instrumental applied area, and a portion of the student teaching must be completed in instrumental music.
E. A minor in Music consists of 24 credits as follows:

1. Eight credits: Music 110, 111, 112, 113. Placement examination required; students with insufficient background must take Music 109 as prerequisite.
2. Six credits of Music 160 through 181 and 260 through 281.
3. Six credits of electives from the two following groups. a. Music 220, 221, 320, 321, 323.
b. Music 210, 211, 310.
4. In addition to the 20 credits specified in 1, 2 , and 3 above, Music minors are required to earn four credits of large ensemble, selected from Music 140, 341, 342, 343.

## Courses in Music

See also course listings under Music Education (next section.)
100. Appreciation and History of Music. 3 cr. Development of music, stressing the elements of music understanding and intelligent listening; form and design in composition. Not to be counted toward a Music major or minor, or the Bachelor of Music Degree.
102. Popular Music in America. 1 to 3 cr . The music of America's people, past and present: the great jazz and folk movements, Broadway musical theatre, film music; recording, publishing, and broadcasting. Not to be counted toward a music major or minor, or the Bachelor of Music Degree. A subtitle will be added each time the course is offered; it may be repeated any number of times, but the same subtitle cannot be repeated. May be applied toward the Humanities requirement in all curricula except for the Bachelor of Music Degree.

The former 103 is now 303.
109. Fundamentals of Music Theory. 2 cr. A survey of the basic elements of musical structure and communication (notation, rhythm, scales, intervals, chords), and their application toward developing vocal, manual, and aural musicianship skills. Three hours per week.
"110. Elementary Theory. 3 cr . Review of theory fundamentals, introduction to part-writing, harmonic and structural analysis in the diatonic idiom, and supporting keyboard skills, Prereq: Placement exam; students with insufficient background must take 109.
*111. Elementary Theory. 3 cr . Extension of written and keyboard musicianship skills in elementary techniques of modulation and chromaticism. Prereq: 110 and 112.
*112. Elementary Music Reading and Ear-Training. 1 cr. Applied musicianship skills in support of, and concurrent with, Music 140. Prereq: Same as for 110.
*113. Elementary Music Reading and Ear-Training. 1 cr. Extension oflapplied musicianship skills in support of, and concurrent with, Music 111. Prereq: 110 and 112.
-See note after Music 213, below.
The former 128 is now 328.
The formen 12 jis now 429.
130-139. First Year Small Ensembles. Each 1 cr. May be repeated once for credit. Prereq: Cons instr.

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\begin{aligned}
& \text { 130-Vocal; 131-String; 132-Flute; 133-Clarinet; } \\
& \text { 134-Saxophone; 135-Mixed Woodwind; 136-Low } \\
& \text { Brass; 137-Mixed Brass; 138-Percussion; 139-Jazz } \\
& \text { Band: }
\end{aligned}
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140. Oratori'́ Chorus. 2 cr. A University-Community chorus which performs the choral masterworks. Open to anyone with or without credit. No audition required. May be re-peated-for credit.
$\begin{array}{rrrr}\text { The former } & 141 \text { is now } & 341 . \\ & 142 & 342 . \\ \text { Bex } & 143 & 343 .\end{array}$
141. (New) Marching Band. 1 cr. Open to non-music majors. No audition required. May be repeated for credit.
142. University Band. 1 cr. An opportunity for non-music majors to continue playing in a musical organization for
enrichment. No audition necessary. May be repeated for credit.
149-157. Class Applied Music. Each 2 cr. (except 150). The elements of each medium taught by class participation and observation.

149-Guitar; 150 ( 1 cr.)-Vocal Techniques for Instrumentalists; 151-Voice; 152-Violin; 153*-Strings; 154 -Double Reeds/Flute; 155-Single Reeds; 156Brass; 157-Percussion. 'Prereq: 152.
158. Group Piano. 1 or 2 cr . Piano through Level III; for the non-pianist music major, exemption, by audition, from any level or part of a level. Not to be counted toward a major or minor in Music, except the Bachelor of Music Degree for Teacher Certification-Vocal Emphasis.
159. Group Piano for the Elementary Teacher. 2 cr. Basic piano skills in music and rhythmic reading, and in the harmonization of simple melodies; for students in elementary education.

160-181. First Year of Applied Music. Each 2 cr. Prereq: Consent of chair.

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\begin{aligned}
& \text { 160-Piano; 161-Organ; 162-Voice; 163-Violin; } 164-1 \text {-Vole } \\
& \text { Viola; 165-Violoncello; 166-Double Bass; 167-Flute; } \\
& \text { 168-Oboe; 169-Clarinet; 170-Bassoon; 171-Saxo- } \\
& \text { phone; 172-Trumpet; 173-Horn; 174-Trombone; } \\
& \text { 175-Baritone; 176-Tuba; 177-Percussion; 178-Harp; } \\
& \text { 179-Composition; 180-Classical Guitar; 181-Jazz } \\
& \text { Guitar. }
\end{aligned}
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The former 190 is now 390. 191 - 328.
192. Introduction to Jazz Improvisation. 1 or 2 cr. Elements of improvising in jazz styles through playing. Prereq: Knowledge of chords and scales, or cons instr. 1 cr. for first eight weeks; 2 cr for the full semester.
193. Improvisation of Music. 2 cr. Applied improvisation using the musical materiais of jazz, aleatory, chance, and free improvisation. Prereq: Basic proficiency on a musical instrument, an understanding of improvisation in other media, or cons instr.
The former 200 has been discontinued.
*210. Intermediate Theory. 3 cr . Part-writing, harmonic and structural analysis in the chromatic idiom, and supporting keyboard skills. Prereq: 111 and 113.
*211. Intermediate Theory. 3 cr . Extension of theory and musicianship to the contemporary idiom; historical survey of musical form and style, with individual creativity and supporting keyboard skills. Prereq: 210 and 212.
212. Intermediate Music Reading and Ear-Training. 1 cr. Advanced applied musicianship skills in support of, and concurrent with, 210. Prereq: 111 and 113.
213. Intermediate Music Reading and Ear-Training. 1 cr. Extension of advanced applied musicianship skills in support of, and concurrent with, 211. Prereq: 210 and 212.
-These courses are offered in pairs, and in this sequence: Music 110 with 112; 111 with 113; 210 with 212; 211 with 213.
Students who fail or receive an incomplete in applied musicianship courses (Music 112, 113, 212, 213) may enroll for the next course in the sequence with permission of the theory faculty, provided the failed course is repeated, or the incomplete removed, in the concurrent semester.
220. Baroque Period. 2 or 3 cr . Musical idioms and styles of the Baroque period, with emphasis on its origins in antiquity, development and rise of new forms, and the relationship of music to the general culture of the period. Majors in music history-literature must register for 3 cr .; other majors with cons instr.
221. Classic Period. 2 cr (3 cr with Writing Emphasis). Musical idioms and styles from 1700 to 1825, with emphasis on the development of new forms, and the relationship of music to the general culture of the period. Majors in music history-literature must register for 3 cr .
230-239. Second Year Small Ensembles. Each 1 cr. May be repeated once for credit. Prereq: 130-139.

230-Vocal; 231—String; 232—Flute; 233-Clarinet;
234-Saxophone; 235-Mixed Woodwind; 236-Low
Brass; 237-Mixed Brass; 238-Percussion; 239-Jazz Band.
The former 240 has been discontinued. See 140.
The former 241 is now 341.
" 242 ". 342.
" 243 " 343.
260-281. Second Year of Applied Music. Students who are working toward the Bachelor of Music Degree in Applied Music receive 4 cr .; other, 2 cr . May be repeated once for credit. Prereq: 160-181; and consent of chair.

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\begin{aligned}
& \text { 260—Piano; 261-Organ; 262—Voice; 263-Violin; 264-_ } \\
& \text { Viola; 265-Violoncello; 266-Double Bass; 267—Flute; } \\
& \text { 268-Oboe; 269-Clarinet; 270-Bassoon; 271—Saxo- } \\
& \text { phone; 272-Trumpet; 273-Horn; 274-Trombone; } \\
& \text { 275-Baritone; 276-Tuba; 277-Percussion; 278-Harp; } \\
& \text { 279—Composition; 280-Classical Guitar; 281-Jazz } \\
& \text { Guitar. }
\end{aligned}
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The former 290 is now 390.
The former 300 (Music Here and Now) has been discontinued.
300. (New) Music International. 3 cr. Music in performance at Semester Abroad sites; attention to background, development of various forms, and masterworks of various periods. Prereq: Jr st or cons instr.
301/501. History of Women in Music. 2 or 3 cr. The contribution of women as composers, performers, authors, and teachers throughout European and American history.

303/503. (Formerly 103) Diction for Singers. 2 cr. Application of international phonetic alphabet to lyric diction in English, Italian, German, and French repertoire. Prereq: Cons. instr.
310. Counterpoint. 3 cr . Writing and analysis of contrapuntal forms and textures useful to the composer-arranger; emphasis on the stylistic contribution of J.S. Bach and the Baroque era. Prereq: 211, 213.
311. Sixteenth Century Polyphony. Contrapuntal styles of the 16th century; analysis and writing of examples. Prereq: 211.

313/513. Composition. 2 cr . Twentieth century compositional techniques with projects in short chamber forms, both vocal and instrumental. Prereq: 211 or cons instr.

314/514. Composition. 2 cr. Twentieth century compositional techniques with projects in large forms for chamber ensembles. Prereq: 211 or, cons instr.
315. Orchestration. 2 cr . Orchestral instruments in regard to their ranges, playing characteristics, physical properties, history, and advisable use. Prereq: 110.
316/516. Electronic Music Studio. 1 to 3 cr. Generation, synthesis, mixing, and recording of electronic and live sounds, including operation of the synthesizer, multi-track recording, and techniques of producing tapes of sound effects, transcriptions, and original compositions for a variety of artistic and commercial applications. Prereq: Cons instr.
317. Conducting. 2 cr . Conducting techniques for vocal and instrumental groups; experience in conducting through class laboratory situations. Prereq: 110.
320/520. Romantic Period. 2 or 3 cr. Musical idioms and styles of the Romantic Period from 1825 to 1900, with emphasis on its origins, development and rise of new forms, and the relationship of music to the general culture of the period. Majors in music history-literature must register for 3 cr., other majors with cons instr.
321/521. Music in the Twentieth Century. 2 or 3 cr . Same as 320/520, from 1900 to the present.
322. Choral Literature. 2 cr . Survey of the signficant small forms of choral composition from the Renaisswince to the present, with emphasis on stylistic understanding.
$323 / 523$. Opera. 3 cr . Opera from 1600 to the present, with special emphasis on one masterwork of each period.
324/524. Organ Literature I. 3 cr. Basić literature of the organ from the 14th to the late 17th century, including thie important predecessors of J. S. Bach, their styles, and the organs for which they wrote. Prereq: Keyboard pfoficiency of grade 4.
325/525. Organ Literature II. 3 cr . Continuation ${ }^{3}$ bf Music 324 , with emphasis on the works of J. S. Bach through the contemporary period; style analysis by: means of recordings and score study, with outside research assignments. ( 324 and 325 need not be taken in sequence.) Prereq: Keyboard proficiency of grade 4.

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326/526. Music before $\mathbf{1 6 0 0} .3 \mathrm{cr}$. History, literaterre, and stylistic trends of music from the Greeks to 1600.
327/527. Music Reference and Research Techniques. 2 cr. Introduction to musical scholarship and the writing of creative projects in music history-literature, theory, and musicology; emphasis on bibliographical survey offeference materials. Prereq: 211-213, 220, 221, and cons jastr.
328/528. (Formerly 128) Studio Accompanying: 1 Er: For the intermediate and advanced pianist; development of accompanying skills in vocal and instrumental music; supervision of applied instructor in an area other than piano; required for applied piano degree. Prereq: Cons piano faculty.
329/529. American Music. 3 cr . From the time of the Pillgrims to the present, with special emphasis on jazz and ethnic music, and their influence on contemporary music.
330-339/530-539. Third Year Small Ensembles. Eachiticr. May be repeated once for credit. Prereq: 230-239.

330/530. Vocal; 331/531. String; 332/532. Flute; 333/ 533. Clarinet; 334/534. Saxophone; 335/535. Mixed' Woodwind. (wяи)
336/536. Low Brass; 337/537. Mixed Brass; $338 /$ 538. Percussion; 339/539. Jazz Band.

The former 340/540 has been discontinued. See 140.

341/541. Large Ensemble: Choir. 1 or 2 cr*$^{*}$. May be repeated for credit. Prereq: Audition or cons instr.
342/542. Large Ensemble: Orchestra. 1 or 2 cr** $^{*}$. May be repeated for credit. Prereq: Audition or cons instr.
343/543. Large Ensemble: Band. 1 or 2 cr." May be repeated for credit. Prereq: Audition or cons instr.
'Students not majoring in music may attend five rehearsals weekly for 2 cr , or 3 rehearsals for 1 cr, with optional scheduling. During the fall semester of their junior and senior years, students majoring in Music Education-Instrumental must register for 1 cr of Marching Band, and 1 cr of Wind Ensemble or Symphonic Band.
344. Service Playing Techniques. 2 cr. Practical application of the problems in church service playing, with introduction to the performance in liturgical forms, anthem and oratorio accompaniments, piano adaptations for the organ, modulations, transposition, improvisation, conducting from the console, and hymnology. May be repreated for a maximum of 4 cr with cons instr. Prereq: 211, 213; organ proficiency of Grade IV.

359-381. Third Year of Applied Music. Students who are working toward the Bachelor of Music Degree in Applied Music receive 4 cr ; others 2 cr . (junior and senior music students not majoring in Applied Music may register for 4 cr with the approval of the instructor and the department chais $\mathrm{c}_{\text {t }}$ Prereq: 260-281 and cons chair.
359. 'Harpsichord'(prereq: Piano proficiency of Grade VII and consinstr); 360. Piano; 361. Organ; 362. Voice; 363. Violin; 364. Viola; ${ }^{\text {² }} 365$. Violoncello; 366. Double Bass; 367. Flute; 368. Oboe; 369. Clarinet; 370. Bassoon; 371. Saxophone; 372. Trumpet; 373. Horn; 374. Trombone; 375. Baritone; 376. Tuba; 377. Percussion; 378. Harp; 379. Composition; 380. Classical Guitar; 381. Jazz Guitar. 0
390. (Formerly 190) Opera/Musical Theatre Workshop. 1 cr. Practical experience in opera, operetta, musical comedy. May be repeated for credit, required in applied voice degree. Prereq: Cons instr.
394. Advanced Choral Conducting. 2 cr . Conducting and rehearsal techgiques with emphasis on the relationship between gesture and interpretation of the score; experience in conducting the University choral ensembles. Prereq: 317.
395. Advanced Instrumental Conducting. 2 cr. Experience in selecting, conducting, and rehearsing instrumental music suitable for use in elementary and secondary schools; emphasis on performance problems unique to band and orchestra instruments; required performance on secondary instruments: Prereq: 317.
410. Form and Analysis I. 3 cr . Survey of musical forms through Beethoven, in the context of their contribution to musical style, with analysis techniques useful in performance, score preparation, and teaching. Prereq: 211, 213.
411. Form and Analysis II. 3 cr . Continuation of 410 from Beethaven to the present. ( 410 and 411 need not be taken in sequence.) Prereq: 211, 213.
412/612. Projects in Electronic Music. 1 to 3 cr. Individually designed projects; credit assigned according to studio time and resources required. Prereq: 316/516 and cons instr.

413/613. Composition. 2 cr. Twentieth century compositional techniques with projects in multisectional forms for large ensembles. Prereq: 211 or cons instr.
414/614. Composition. 2 cr. Twentieth century compositional techniques with projects in improvisation and experimental media. Prereq: 211 or cons instr.
415/615. Band Arranging Techniques. 2 cr . Special attention to arranging needs of high school wind ensembles with particular emphasis on production numbers, solo backgrounds, small ensembles, and accompaniments.
416/616. Choral Arranging Techniques. 2 cr . Arranging for standard adult and adolescent choral groups, in the popular and serious idioms, with special attention to the needs of high school and specialty organizations. Prereq: Open only to music majors; or cons instr.
417/617. Jazz Arranging Techniques. 2 cr. Study of jazz and commercial arranging styles for the public school and professional organizations, with opportunities for performance in jazz ensembles. Prereq: Open only to music majors; or cons instr.
420/620. Piano Literature I. 3 cr. Keyboard literature from 1700 to 1825 with emphasis on major composers and their contributions to this field.
421/621. Piano Literature II. 3 cr. Same as 420 , covering the period from 1825 to the present.
422/622. Voice Literature I. 3 cr. Study of vocal literature from 1500 to 1825 ; designed to broaden the student's performing and teaching repertoire, including the study of program building.
423/623. Voice Literature II. 3 cr. Same as $422 / 622$, covering the period 1825 to the present.
424/624. History and Literature of Wind Ensemble Music. 2 cr. History of the development of wind instruments and their literature, with emphasis on composers from Mozart to the present.
426/626. Chamber Music. 3 cr . Survey of chamber music, with emphasis on literature of the string quartet and other instrumental chamber ensembles.
$427 / 627$. Symphonic Music. 3 cr . Survey of symphonic music, with emphasis on literature of the symphony and symphonic program music.
428/628. Music Cultures of the Pacific, the Near East, and Asia. 3 cr . Basic kinds of music and musical instruments found in the major oriental civilizations and in the island cultures of the Eastern Hemisphere.
429/629. (Formerly 129) Piano Chamber Ensemble. 1 cr. Study and performance of chamber music. The student will be assigned to a member of the piano faculty and will have weekly coaching sessions; performance on a student recital. Required for the applied piano degree. Prereq: Cons instr.
430-439/630-639. Fourth Year Small Ensembles. Each 1 cr. May be repeated once for credit. Prereq: Cons instr.

430/630. Vocal; 431/631. String; 432/632. Flute; 433/633. Clarinet; 434/634. Saxophone; 435/635. Mixed Woodwind; 436/636. Low Brass; 437/637. Mixed Brass; 438/638. Percussion; 439-639. Jazz Band.
The former 440-443/640-643 have been discontinued. See 140.

459-479. Fourth Year of Applied Music. (Same description as for 359-379) Prereq: 359-759 and cons chrmn.
459. Harpsichord (prereq: Piano proficiency of Grade VII and cons instr.) 460. Piano; 461. Organ; 462. Voice; 463. Violin; 464. Viola; 465. Violoncello; 466. Double Bass; 467. Flute; 468. Oboe; 469. Clarinet; 470. Bassoon; 471. Saxophone; 472. Trumpet; 473. Horn; 474. Trombone; 475. Baritone; 476. Tuba; 477. Percussion; 478. Harp; 479. Composition; 480. Classical Guitar; 481. Jazz Guitar.
The former 490 is now 390.
491. Piano Pedagogy. 2 cr. Effective skills in private and class piano, with discussion and performance of piano literature; observation of class and private instruction. Prereq: Piano proficiency IV.
492. Voice Pedagogy. 2 cr . Vocal teaching methods; observation of class and private instruction. Prereq: Voice proficiency Grade IV.
493. Woodwind Pedagogy. 2 cr. Methods of teaching woodwind instruments with special attention to specific problems of each instrument.
494. Brass Pedagogy. 2 cr. Methods of teaching brass instruments with special attention to specific problems of each instrument.
495. Percussion Pedagogy. 2 cr. Literature and reference material covering the field of percussion, including various method books, textbooks, and publisher sources. Prereq: Percussion proficiency Grade IV.
496. String Pedagogy. 2 cr . Techniques employed by master string teachers of the past and present, including literature and music available for string instruction at all levels, in both private and class situations. Prereq: Performance grade IV, and/or cons instr.
499. Special Work. Upper-class students majoring or minoring in Music, or those working toward a Bachelor of Music degree may by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit. for each week, or its equivalent, devoted exclusively to a special project in theory, conducting, composition, orchestration, or music history.
711. Theory. 3 cr . Structure and materials of music, in which analysis is related to the performance and interpretation of music; musical materials drawn from small forms, 1650-1900.
712. Form and Analysis. 3 cr . Musical forms from all periods, with emphasis on structural analysis.
722. Mass, Motet, Cantata. 2 cr. Major choral forms; their beginnings and development with careful evaluation of representative works.
760-779. Artist Course in Applied Music. Each 2 cr. Opportunity for the gifted student to expand his repertoire and develop his musicianship.
760. Piano; 761. Organ; 762. Voice; 763. Violin; 764. Viola; 765. Violoncello; 766; Double Bass; 767. Flute; 768.
Oboe; 769. Clarinet; 770. Bassoon; 771. Saxophone; 772.
Trumpet; 773. Horn; 774. Trombone; 775. Baritone; 776.
Tuba; 777. Percussion; 778. Harp; 779. Composition; 780.
Classical Guitar. 781. Jazz Guitar.
796. Independent Study. 1 to 3 cr . Planned study designed to enrich and supplement the student's preparation in his area of specialization.

## Courses in Music Education

201. Introduction to Music Education. 1 cr. Introduction to the philosophy of music education. 2 hrs per wk includes observation and participation in public school music classes. Prereq: Music 110, 112.
202. Music Teaching Techniques in the Elementary School: Vocal. 2 cr . Theory and application of effective vocal teaching skills in the primary and intermediate grades; aims and content of public school music in relation to general curriculum; classroom observations. Prereq: 201 or cons instr; open only to music majors and minors and elementary education majors with a music emphasis.
203. Music Teaching Techniques in the Elementary School: Instrumental. 2 cr . Theory and application of effective instrumental teaching skills in the primary and intermediate grades, and their relation to public school music and general curriculum; classroom observation. Prereq: 201 or cons of instr; open only to music majors and minors.
204. Music Teaching Techniques in the Secondary School: Vocal. 2 cr. Methods, materials, and curricular organization of vocal and general music in the high school, and appropriate teaching strategies. Prereq: 201 or cons instr; open only to music majors and minors.
205. Music Teaching Techniques in the Secondary School: Instrumental. 2 cr. Methods, materials, and curricular prganization of instrumental music in the3high school, and its teaching strategies. Prereq: 201 or cons instr; qpen only to music majors and minors.
206. Music in the Elementary School. 3icr. Tectrniques and theory of effective teaching skills in the iprimaryfand intermediate grades, including the fundamentals of music as applicable to each grade as studied; aims and content of public school music in relation to general curriculum. Required in the Primary and Intermediate curricula. Not to be counted toward a Music major or minor. Prereq Music 109 and 159, or exemption by examination; Music Accompaniment Competency - See item XIII under the Bachelor of Science Degree in Elementary Education:
207. Music in the Junior High School: Vocal. 2 icm. Theory and application of effective vocal and general music teaching skills in the junior high school; aims, methods; materials, planning and testing. Prereq: 201 or cons instr; open only to music majors and minors and elementary education majors with a music emphasis.
208. Music Education Workshop. 2 cr. Review of techniques in music education for the classroom teacher, with special emphasis any one semester in one of the following: music reading, rhythmic activities, creativity, listening activities, and the examination of materials.
384/584. Pedagogy of Suzuki Talent Education. 2 cr. Teaching skills required for individual, class, or group lessons based on Suzuki Talent Education with special attention to specific methods of developing musical ability in 3-18 year old students using audio-visual materials, Suzuki litefrature, discussion, performance, and observation.
385/585. Suzuki Workshop. 2 cr. Techniques and practica) applications of the Suzuki string method. May be repeated once for a total of four credits. Two sessions weekly and
practical experiences in Suzuki instruction. Prereq: 384 or cons instr.
$386 / 586$. Principles of Adult and Continuing Music Education. 2 cr . Needs and characteristics of adult learners in music; strategies for development of learning and performance enterprises in community settings. Prereq: 201 or cons instr.
209. Music for Exceptional Children. 2 cr. Ways in which music can be used with children who are mentally retarded, emotionally disturbed, learning disabled, or gifted, or who have visual, hearing, speech, or motor impairments; techniques and materials. Prereq: 323; Education 351/551.
424/624. Survey of Choral Literature. 2 cr . Selection and reading of solo and ensemble literature for the junior and senior high school student; for the experienced teacher.
$425 / 625$. Survey of Instrumental Literature. 2 cr . Selection and reading of solo and ensemble literature for the junior and senior high school student; for the experienced teacher.

426/626. Literature of Suzuki Talent Education. 3 cr. Survey of Suzuki performance and teaching literature, with special emphasis on graded performance and technical materials.
427/627. Workshop in Jazz Pedagogy. 2 cr. Jazz teaching methods with emphasis on techniques in elementary and secondary education.
485/685. Band Pageantry. 2 cr. Marching and formation techniques for the street, parade, and the sport event.
486/686. Theory and Practice of Instrumental Repair, Adjustment, Tuning, and Maintenance. 2 cr . Beginning and intermediate work with use of tools for woodwind, brass, and percussion.
487/687. Theory and Practice of Piano Tuning and Repairing. 2 cr. Introduction to piano maintenance with emphasis on practical experience in tuning, regulating, and repairing
710. Theory for Junior and Senior High Schools. 3 cr. Latest teaching approaches for music theory including teaching machines, tape machine learning, programmed learning, and research applications, laboratory and reading projects.

## 723. Music Literature for Junior and Senior High Schools. 3

 cr. The selection and presentation of classic and modern literature for young people; styles and form and their implications for teaching.
## 750-759. Pedagogical Techniques for Music Teachers.

Each 2 cr . Designed to assist the experienced teacher.
750-Piano; 751-Voice; 752-Violin; 753-Low Strings;
754-Flute; 755-Double Reeds; 756-Clarinet; 757-
Trumpet, 758-Low Brass; 759 - Percussion.
781. New Developments in Elementary Music. 3 cr. Exploring the Kodaly and Orff approaches to classroom music and their relation to current research.
783. Problems in Curriculum and Supervision. 3 cr. Working with curriculum as it relates to a total school program; for the experienced teacher.
784. Rehearsal Techniques: Choral. 3 cr. Problems related to the organization and preparation of ensembles with particular emphasis to techniques of the rehearsal.
785. Rehearsal Techniques: Instrumental. 3 cr. Problems related to the organization and preparation of ensembles with particular emphasis to techniques of the rehearsal.
786. Seminar in Music Education I. 3 cr. Aesthetic and philosophical foundations of music education; emphasis on current trends in educational thought and their implications for music education.
787. Seminar in Music Education II. 3 cr. Psychological foundations of music education; emphasis on the development of teaching objectives and didactic strategies.
788. Seminar in Music Education III. 3 cr. Aesthetics, philosophical, and practical foundations of Suzuki talent education, its techniques and teaching objectives.
789. Introduction to Research. 2 cr. Methodology and elementary statistics as they apply to research in music education.
798. Residency. $1-6 \mathrm{cr}$. Observation and teaching under guidance from cooperating teachers in actual classroom situations. May be repeated once for a maximum of 12 credits.
799. Thesis. 2 to 6 cr .

## NATURAL RESOURCES, College of

Daniel O. Trainer, Dean; James G. Newman, Assistant to the Dean.
Room 136, College of Natural Resources Building. Phone: (715) 346-4617 or -2853.
The College of Natural Resources offers courses in Forestry, Natural Resources, Soils, Water, and Wildlife. These courses are described under the appropriate headings in the following pages.
Majors and/or minors are offered in Environmental Communication, Environmental Education/Interpretation, Environmental Law Enforcement, Forestry, Outdoor Education, Resource Management, Soil Science, Water Resources, and Wildlife. Students in the majors must meet the general degree requirements of the College of Natural Resources. In addition to the general requirements, the following should be noted:

1. Most of the courses in the College of Natural Resources numbered 300 and above require a student to have completed the introductory courses in Natural Resources, Forestry, Soils, Water, and Wildlife, as well as the Summer Camp courses. It is therefore important that a student complete the required introductory courses and summer camp before the beginning of the first semester of the junior year.
2. The courses taken to fulfill a specific major or minor must be approved by an adviser in that discipline prior to graduation, It is therefore imperative that each student work with an adviser in choosing the course sequence.
3. No courses required in a major or minor may be taken on a Pass-Fail option.
To be accepted as a major, to be retained as a major, and to be approved for graduation, the student must have a minimum grade point ratio of 2.00 in all courses taken within the major ( 2.25 in the Wildlife and Forestry majors or minors), including collateral courses, regardless of a dec-
laration of academic bankruptcy. The Assistant to the Dean may allow exceptions to the above on a conditional basis.
The Master of Science Degree - Natural Resources is described earlier in this catalog in the section on The Graduate College.

## ENVIRONMENTAL COMMUNICATION

A minor in Environmental Communication is open only to majors within the College of Natural Resources. It consists of 24 credits:

1. Required core courses, nine credits: Natural Resources 320, 368, and 369.
2. Nine credits selected from the following: Communication 210, 211, 217, 227; 330, 331, 332, 333, 334, 335, 336. (At least three credits must be selected from 210, 211, 217.)
3. Six credits selected from the following: Communication 400; English 354; Instructional Resources 231, 322, 331, 332, 351 (sections 1, 3, 9, only).

## ENVIRONMENTAL EDUCATION/INTERPRETATION

A minor in Environmental Education/Interpretation consists of 25 credits. It is open only to majors in the College of Natural Resources and the Department of Biology. (Others may be admitted if they receive special permission from the Dean of the College of Natural Resources.)

1. Required core courses, sixteen credits: Natural Resources 300/500, 368/568, 369/569, 376/576, 478/678. Students not majoring in the College of Natural Resources are additionally required to take Natural Resources 370/570.
2. Six to nine elective credits from field courses in consultation with the faculty administering the environmental education/interpretation minor.

## ENVIRONMENTAL LAW ENFORCEMENT

A minor in Environmental Law Enforcement is available to all majors in the College of Natural Resources, and to others with the approval of the Dean of the College. It is designed to provide a law enforcement background which can be utilized by students with a natural resources major.
The minor consists of 22 credits in the following courses: Natural Resources 393 (3 cr), and 473; Philosophy 315, 380; Physical Education 252; Political Science 212; Sociology 230 (101 or 102 is prereq).

## ENVIRONMENTAL STUDIES

The minor in Environmental Studies is described earlier in this section of the catalog under that heading, and is administered by the College of Letters and Science.

## FORESTRY

## Objectives of the Forestry Program:

1. Top priority is to provide a sound undergraduate program of forestry education: The basis of professional training is established by the Society of American Foresters. To this base our program adds flexibility in the selection of collateral courses in concentrations
designed to help meet the student's professional objectives. To a traditional core of required forestry courses, specialized training is provided in areas which manifest a demand for well qualified professionals, not emphasized elsewhere in the state.
2. To support and enchance the other majors in the College of Natural Resources and other academic programs of the University: The philosophy of the College of Natural Resources emphasizes the oneness of the environment. All majors in the College require training in forestry, soils, water, and wildlife. Some students combine minors or concentrations in other disciplines with their forestry major to enhance their qualification as forestry professionals.
3. To pursue new knowledge: Research leading to the Master of Science degree serves as a basis for the graduate program. Research primarily emphasizes areas of applied forestry allied to the undergraduate program.
4. To apply contemporary forestry knowledge through continuing education and extension: The forestry program serves as a center for the exchange of knowledge through sponsorship of symposia, workshops and seminars on contemporary subjects for forestry professionals and forest landowners.
5. To develop professionalism and an esprit de corps among students, alumni, and faculty: The faculty will cooperate and coordinate activities with the Society of American Foresters, the student chapter, local chapters and sections of the Society, and the University alumni association to encourage continuing participation in professional and university activities throughout the individual's life.
Students wishing to be admitted to the forestry major must petition the forestry faculty for admission to the forestiry program after completing 45 or more credits of course work at this or any other accredited university. Preliminary admission to the forestry major and permission to take 300400 level forestry courses (except Forestry 320 and 325) will be limited to those forestry students who have earned at least a 2.25 grade point ratio in the forestry major.
Final admission to the forestry major will be based on these minimum grade point ratios computed after the completing of Forestry 320.

Students who register for 300-400 level forestry courses (except Forestry 325) on the basis of preliminary admission and who fail to meet the minimum 2.25 grade point ratio for all courses in the major after completing Forestry 320 (or NR 475) will be withdrawn from the 300-400 level forestry courses until they meet these minimum standards.
A. A major in Forestry consists of:

1. Major study and approved electives to total 130 credits in addition to the required physical education (total: 134 credits).
2. Forty-nine credits, including Forestry 120, 221, 328, 332, 422, 425, 426, 431; Natural Resources 170, 372; Soils 260; Water 180; Wildlife 140; and twelve credits selected from the following electives: Forestry 227, 324, 325, 329, 330, 333, 394, 424, 429, 440, 450, 480, 493; Natural Resources 371, 377, 473, 474, 490; Paper Sci-' ence 101; Solls 361; Water 389; Wildlife 451.
3. Six credits of Summer Camp courses: Forestry 320; Soils 360; Wildlife 340, Water 380.
4. Completion of one of four collateral emphases (select one of a., b., c., or d.):
a. Forest Management (for students interested in graduate school and research):
Biology 130, 160, 351; Chemistry 105 and 106, or 115 and 116; Economics 200; Mathematics 100, 116, 117, 355; and at least four credits from Chemistry 220, 240; Computer Science 112, 212; Geology 104; Mathematics 121; Natural Resources 171; Physics 201.
b. Forest Administration (for students interested in working for a public agency or private industry):
b.1. Biology 130, 160; Business 320 or Computer Science 112, Chemistry 105 or 115; Economics 200, 201; Mathematics 100, 116, 117, 355.
b.2. At least six credits from Communication 211, 217, 227 (Writing Lab), 330, 335, 336, 365, 400; English 157, 250, 257, 350, 354, 357.
b.3. At least six credits from Business 330,370 , 380; Economics 311, 315, 341, 345, 361, 365, 453; Political Science 250, 304, 320, 351, 354, 356, 358; Psychology 320, 345; Sociology 311, 312, 356, 359.
c. Urban Forestry:
c.1. Forestry 227, 324, 333, 424 (These courses may be used to meet the forestry elective requirements listed in 2., above.); Natural Resources 368 ; Wildlife 454 .
c.2. Biology 130, 160, 351; Chemistry 105 and 106, or 115 and 116; Economics 200; Mathematics $100,116,117$.
c.3. The following are suggested to add to your understanding of urban environment and to meet some Social Science, Humanities, and elective requirements: Communication 210, 335, 400; Drama 132; English 363; Geography 373; Philosophy 380; Political Science 250, 341, 342, 354, 356, 358; Psychology 110; Sociology 101, 356.

## d. Forest Recreation:

d.1. Forestry 227, 330, 333, 394, 480; Natural Resources 474 (These courses may be used to meet the forestry elective requirements listed in 2., above).
d.2. Natural Resources 368,393 or 473.
d.3. Biology 130, 160, 322; Chemistry 105 or 115; Geography 103 or Geology 104; Mathematics 100, 116, 117, 355.
B. A minor in Forestry consists of $\mathbf{2 2}$ credits:

1. Forestry $120,332,422,425,432$.
2. Eight credits selected from Forestry 221, 227, 320, 324, 325, 328, 426, 493; Natural Resources 372; Soils 361.

## Courses in Forestry

120. Introduction to Forest Resources. 3 cr . Introduction to the forest resources of the United States with special emphasis on the role of forestry in historic and current events;
elementary mensuration; management techniques. Two hrs lec, two hrs lab per week. (I, II)
121. Dendrology. 3 cr. Identification, classification, distribution, and economic importance of the principal forest trees of the United States. Two hrs lec, two hrs lab per wk.
Prereq: 120 or cons instr. (I, II)
122. Recreational Use of Forests and Parks. 3 cr. Survey of recreational use of forest environments; role of federal, state, and local government agencies in forest recreation; environmental impact of forest recreation; and principles of management and planning. Prereq: So st. (I, II)
123. Field Experience in Forest Measurement and Surveying. $11 / 2 \mathrm{cr}$. Application of forest measurement and surveying techniques and forest ecological relationships for integrated resource management. Prereq: 120. (SS)
324/524. Forest Protection I: Abiotic Agents. 2 or 3 cr. Analysis of non-living agents, such as forest fires, air pollutants, weather phenomena, and soil condition, and the damage they do to trees; principles of detection, prevention, and control. Prereq: 120 or cons instr. (ii)
325/525. Range Management. 3 cr . Technical study of sustained yield management practices applicable to rangelands with consideration of proper stocking and grazing systems and methods of Range surveying. Prereq: Biology 130; Soils 260 or cons instr. (II)
328/528. Wood Technology. 3 cr . Structure of wood; identification of native woods by microscopic and macroscopic features; physical and chemical properties; uses. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (1, II)
329/529. Harvesting Systems. 2 cr. North American tree harvesting systems: felling, limbing, bucking, forwarding, loading and hauling, analysis of safety procedures, equipment selection and maintenance, environmental implications, and cost determinations. Prereq: Summer Camp or cons instr. (I)
330/530. Forest Recreation Planning and Site Design. 3 cr. Analysis of the principles and practice of forest recreation planning; emphasis on the planning practices of federal and state recreation agencies, on the development of master plans for parks, and on site planning procedures. Prereq: 227 or cons instr. (II)
124. Landscape Maintenance/Arboriculture. 3 cr. Principles and practice of tree, shrub, and turf establishment and maintenance; use and maintenance of landscape equipment and facilities.
$332 / 532$. Silvics. 3 cr . Ecological foundations of silviculture with reference to forest site factors; influence of forest on the environment; growth and development of trees and stands; origin, development, and classification of forest communities. Two hrs lec, three hrs lab per wk. Prereq: 221, 320; Summer Camp or cons instr. (I)
333/533. Urban Forestry. 3 cr . Management of trees and other vegetation in metropolitan areas to enhance the urban environment. Prereq: 221 or cons instr. (I)
381/581. Internship in Forestry. 1-12 cr. Supervised training program in forestry, coordinated by the faculty of the College of Natural Resources in cooperation with private or public'resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be de-
termined before registration. Credit will be determined by instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Wildlife 340, Soils 360, and Water 380; or Natural Resources 475; and/or cons intern director. (I, II, SS)
125. Applied Landscape Architecture. 3 cr. Principles of design, landscape assessment, and graphic techniques as applied to urban and rural forested landscapes. Prereq: Summer camp or cons instr.
394/594. Forest Recreation Seminar. 1 or 2 cr. Field observation and study of recreation planning and management problems and practices, at federal, state, and other recreation areas outside this geographical region. Prereq: 227 or cons instr. (II)
422/622. Forest Mensuration. 3 cr . Measurement of forest stands, products, and growth, including the construction and use of appropriate instruments, tables, and surveys. Two hrs lec, three hrs lab per wk. Prereq: Mathematics 355; Summer Camp or cons instr. (I)
424/624. Forest Protection II: Pathology. 2 cr. Identification, ecology and control of important disease organisms affecting forest and shade trees or wood in service. One hr lec, three hrs lab per week. Prereq: 221; Biol 130; Summer Camp or cons instr. (II)
425/625. Forest Management and Finance. 3 cr. Principles of organizing and regulating forest properties; valuation and investment analysis. Two hrs lec, two hrs lab per week. Prereq: 221, 322, 332, 432; Summer Camp or cons instr. (II)
426/626. Forest Protection III: Entomology. 3 cr. Identification, ecology and control of important forest, shade tree and structural insects, with emphasis on principles of integrated control. One hr lec, four hrs lab per week. Prereq: 221; Biol 160; Summer Camp or cons instr. (I, II)
429/629. Forest Products. 2 gr . Source, character, and methods of manufacture of natural and derived forest products. Prereq: 328 or cons instr. (II)
432/632. Silviculture. 3 cr . Principles governing establishment, treatment, and control of forest stands; natural and artificial regeneration systems; intermediate cuttings, and cultural operations with emphasis on the principal forest types of temperate North America. Two hrs lec, three hrs lab per week. Prereq: 332; Summer Camp or cons instr. (II)
434/634. Field Practices in Silviculture. 3 cr. Field techniques in silviculture, including practices in intermediate treatments of forest stands, forest regeneration techniques, and silvicultural management of forest stands. Prereq: 432. (SS)
440/640. Forest Tree Improvement. 3 cr. Distribution of genetic variation in forest tree populations; introduction, selection, progeny testing, species hybridization, and polyploidy to obtain superior tree populations. Prereq: 221, 322, 432; or cons instr. (On demand)
450/650. Forestry Forum: Current Developments. 1 cr. Research and issues of current interest likely to influence forestry in the future. Pass-Fail ONLY. Prereq: Summer Camp or cons instr. (II)
480/680. Forest Recreation Management. 3 cr. Formulating of recreation management objectives; determination of user preferences and satisfaction; analysis of ecological
impacts and facility requirements of forest recreation üse. Prereq: Summer Camp; Forestry 227, 330; or cons instr. (I)
493/693. Forestry Field Seminar. 1 or 2 cr. See Field Seminar Program, which is described under Natural Resources. (II)
126. Special Work. Upper-class students in Forestry may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-of-class work for which credit may be allowed on the basis of one credit for every week, or its equivalent, devoted exclusively to a special project. (I, II)
127. Tree Physiology. 4 cr . The principle physiological processes of trees including synthesis and use of foods, and growth phenomena. Prereq: Biol 351 and Chem 220 or equiv. (on demand)

## NATURAL RESOURCES

The major in Resource Management is described under that heading later in this section.

## Courses in Natural Resources

The former 090, 091, 092/392 have been discontinued.
100. Natural Resource Careers Workshop. 1 cr. A resident workshop at the Central Wisconsin Environmental Station exploring concepts and careers in soil, water and fisheries, wildlife, forestry, paper science, environmental education, and recreation. Presentations by resource specialists in each area. (SS)
170. Introduction to Natural Resources. 1 cr . The integrated management of natural resources and their role in man's natural, social, and economic welfare. Open to all students. (I, II)
171. Elementary Surveying. 3 cr . Use of the tape, compass, level, and transit; U.S. land system; simple maps, traverse closure, and area computations; profiles, stadia plane table. One hr lec, six hrs lab per week. Prereq: Math 100 or equivalent training in trigonometry. (I)
The former 194 has been discontinued.
210. Safety Instructor Certification. 1 cr . Preparation of qualified instructors to teach courses in boating, hunter, and snowmobile safety as prescribed by the state Department of Natural Resources; ethics and public controversies relative to these areas. Each time the course is offered a subtitle indicating the area of certification will be added. May be repeated under different subtitles for a maximum of three credits. Credit may not be earned in both Physical Education 278 and Natural Resources 210. Prereq: So st. (II)

The former 291 has been discontinued.
The former 294 has been discontinued.
300/500. Foundations of Environmental Education. 3 cr . Conceptual and philosophical basis for environmental education; analysis of instructional materials; strategies for developing and implementing environmental education programs. Prereq: Biology 305. (I)
320/520. Natural Resources and Public Relations. 3 cr. Preparation of natural resources specialists for involvement with various publics, including governmental agencies, boards, and committees, professional associations,
and environmental societies; identification of public relations techniques and methods of evaluating public input as used by resource professionals. Prereq: Cons instr. (I)
$368 / 568$. Environmental Interpretation I. 3 cr. Principles and verbal techniques to relate the values of natural history and cultural features to visitors at parks, recreation areas, museums, and other institutions; walks, talks, and programming. (I, II)
369/569. Environmental Interpretation II. 3 cr. Nonverbal techniques to relate the values of natural history and cultural features to visitors at parks, recreation areas, museums, and other institutions; writing, signs, trails, exhibits, slide-tape programs, and interpretive planning; field trips to area interpretation centers. Prereq: 368/568. (I, II)
370/570. Introduction to Environmental Study. 3 cr. Natural, social, and economic factors influencing the quality of man's environment; ecological relationships and principles and their relation to population growth, pollution, resource allocation and depletion, conservation, technology, and urban and rural planning. Fulfills the requirement for those who need a conservation course. Not open to majors or minors in the College of Natural Resources. (1, II)
371/571. Resource Administration. 2 cr . Administrative principles and organizational structure of private, local, state, and federal resource agencies. (I)
372/572. Resource Economics. 3 cr. Fundamental economics concepts and their application to resource use; traditional and revised theories of land use; problems of land policy management. (I, II)
373/573. Agronomy. 3 cr . Grain and forage crops, with emphasis on management practices. Two hrs lec, two hrs lab per week. Prereq: Summer Camp or cons instr. Purchase of a laboratory manual is required. (1)
375/575. Environmental Field Studies. 3 cr. Environmental and Natural History study as a background to the use of the outdoors as a teaching laboratory. One hr lec, four hrs lab per wk. Not open to majors or minors in the College of Natural Resources. (SS)
376/576. Environmental Education and Interpretation Practicum. 4 cr. Practical experiences in environmental education and interpretation at selected off-campus sites. One full day per wk. Prereq: 300, 368, or con reg. (I, II, SS)
377/577. Airphoto Interpretation. 3 cr . Introduction to the use of airphotos and airphoto interpretation to inventory forest, soil, water, and wildlife resources; to identify and evaluate indicators of pollution and related evidences of environmental degradation. Two hrs lec, two hrs lab per wk. Credit may not be earned in both Natural Resources 377 and Geography 377. (I, II)
378. Introduction to Minerals Technology. 3 cr. Survey of the extractive and processing systems used in the mining. mineral dressing, and metallurgical industries. Prereq: Chemistry 105 or 115; Geology 104. (on demand)
380/580. Solid and Hazardous Waste Management. 3 cr. Characterization, collection, recycling/disposal of municipal, industrial, and agricultural wastes, with emphasis on the environmental effects related to disposal. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (I)
381/581. Internship in Natural Resources. 1-12 cr. Supervised training program in resource management, coordi-
nated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Soils 360, Wildlife 340, and Water 380; or Natural Resources 475; and/or cons intern director. (1, II, SS)
390/590. Nature Interpretation in Central Wisconsin. 0-3 cr. Firsthand acquaintance with the major ecological communities of central Wisconsin, their relationship to landforms and climate, key plants and animals, their interrelationship and the effect of man's activities; emphasis on interpretive techniques. The course emphasis will vary seasonally. May be repeated for credit under different subtitles. If taken for 0 credit, an audit fee must be paid. (On demand)
391/591. Naturalist Training Workshop. 0-3 cr. Volunteer naturalists and youth leaders will learn how to develop and present innovative natural history programs. Techniques for trail walks and interpretive programs are emphasized in an interactive forum. If taken for 0 credit, an audit fee must be paid. May be repeated for credit under different subtitles. (On demand)
The former 392 has been discontinued.
393. Environmental Law Enforcement. 1 to 3 cr. Environmental law enforcement practices including such subject areas as search, seizure, ballistics, criminal codes, evidence collection and preservation. A subtitle will be added to the title to describe the area(s) each time the course is offered. May be repeated under different subtitles up to a total of three credits. Offered in mini-session only. Prereq: Cons instr, and declared Environmental Law Enforcement minor.
The former 394 has been discontinued.
405/605. Selected Topics in Natural Resources. 1 to $3 \mathbf{c r}$. Major concepts and problems in an area of natural resources. Prereq: Cons instr. (I, ii)
440/640. Environmental Law Enforcement Theory and Principles. 3 cr. Overview of environmental law enforcement activities with an emphasis on the theoretical basis for current enforcement practices. Prereq: Politicat Science 312, or Sociology 230, or cons instr. (II)
473/673. Resource Pollcy and Law. 3 cr. Legislation and policy pertaining to natural resources with consideration given to the need for, purpose of, making of, and implementation of such laws and policy. (II)
474/674. Integrated Resource Management. 3 cr. Integrated management of resources with emphasis on combinations of principles prerequisite to the formulation and implementation of natural resources policy; special attention to current issues, problems, trends. Prereq: Forestry 120, Soils 260, Water 180, Wildlife 140. (I, II)
475/675. International Environmental Studies Seminar. 2 to 8 cr . See Field Seminar Program. (SS)
477/677. Development of Environmental Impact Statements. 1 cr. Laws and regulations controlling EIS development; case studies of selected statements; preparation and presentation of an EIS. (I, II)

478/678. Community Environmental Issue Investigation. 3 cr. Analysis of environmental issues and problems through the use of environmental management education concepts, problem solving strategies, and values clarification techniques. Prereq: Biology 205; Natural Resources 370 or senior standing within the College of Natural Resources. (II)
480/680. Urban and Regional Planning Practice. 3 cr . The history and analysis of major current problems facing public and quasi-public planning agencies; review of past, current and possible solutions in area resource management. ( 1, II)
484/684. Implementation of Air, Water, and Land Use Plans. 3 cr . Review of natural resource planning at federal and state levels, practicalities of adoption and implementation in local communities; strategy seminar on one topic. Prereq: 474 or cons instr. (II)
490. Natural Resources Seminar. 1 cr. Individual and group investigation of current problems in conservation. Prereq: Sr st for majors or minors in Nat Res. (I, II)

The former 491 has been discontinued.
493/693. Environmental Field Seminar. 1 or 2 cr.
The former 494 has been discontinued.
495/695. Ecological Basis for Planning and Design. 3 cr. Ecologital principles, relationships, and interaction between natural and man-made elements of the environment. Prereq: 474/674 or cons instr. (II)
499. Special Work. Upper-class students majoring or minoring in the College of Natural Resources, who have demonstrated above average academic ability, may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special independent study in their interest area, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
The former 781 has been discontinued. See 484/684.
794. Graduate Seminar. 1 cr . Discussion of selected environmental and natural resource topics. Required of CNR graduate students every semester except when presenting a 795 seminar. (I, II)
795. Graduate Seminar. 1 cr . Student presentation and discussion of selected environmental and natural resource topics including results of stüdent research. (I, II)
796. Independent Study. 1 to 3 cr . Advanced work on a specific natural resource problem. (I, II, SS)
797. Research Methods, Design and Analysis. 3 cr. Principles and methods regarding design and management of natural resources experimental investigations, statistical analysis of data, and preparation of research outlines.
Prereq: Cons instr. (I)
799. Thesis. (Not on Plan B.) 2 to 6 cr . (I, II, SS)

## Field Seminar Program

The Field Seminar Program is designed to acquaint students with research and management activities not available to them through campus and summer camp experiences. The program will be conducted as extended tours of areas and facilities pertinent to the appropriate resource discipline.

Forestry 493/693. Forestry Field Seminar. 1 or 2 cr. (For one credit, the course will be taken on a Pass-Fail basis; for two credits, the completion of a comprehensive report on the field experiences is required.) Spring vacation tour through areas selected for intensive forest management and research facilities differing from those available in the upper Midwest; observation of silvicultural practices, managerial programs, and wood utilization techniques. Prereq: Cons instr. (II)

## Natural Resources 475/675. International Environmental

 Studies Seminar, 2-8 cr. Study in a selected region of the world which will survey environmental problems and programs of the area; comparisons with U.S. environmental and natural resource issues. Prereq: Cons instr. (The combination of two weeks at summer camp and four weeks in Germany is an alternative to the regular six week summer camp requirement). (SS)Natural Resources 493/693. Environmental Field Seminar. 1 or 2 cr . Study in selected regions of the United States which will survey environmental problems and programs of the area. Prereq: Cons instr. (on demand)
Soils 493/693. Soils Field Seminar. 1 or 2 cr. For one credit, spring vacation tour through areas selected for soils varying from those of cool, humid zone; investigation of soil genesis and morphology, land forms, vegetative types, and soil management practices. Prereq: Cons instr. (II)
Wildlife 493/693. Wildlife Field Seminar. 1 or 2 cr. For one credit, the course may be taken on a pass-fail basis; for two credits, the completion of a comprehensive report on the field experience is required. Prereq: Cons instr. (II)

## Summer Camp Program

- The Summer Camp Program consists of Forestry 320, Soils 360 , Water 380 , and Wildlife 340 , each for $1 \frac{1}{2}$ credits. See the description of these courses under the appropriate heading in this section of this catalog.


## OUTDOOR EDUCATION

A minor in Outdoor Education is administered by the College of Natural Resources under the general degree requirements of the College of Professional Studies; it consists of 22 credits:
I. Required core courses, 12-18 credits: Biology 204 or 205 (Ecology); Education 350 (Organization and Administration of Outdoor Education), 372 (Techniques of Outdoor Education); Natural Resources 376 (Outdoor Education Practicum) or Education 398 (Student Teaching in Outdoor Education); Natural Resources 370 (Introduction to Environmental Study), 375 (Environmental Field Studies).
NOTE: Majors and minors in the College of Natural Resources may not enroll in Natural Resources 370 or 375 for credit.
II. Electives - Select Option A or Option B:

Option A: 4-10 credits from the following: Art 347 (Crafts of the American Indians); Astronomy 311 (Introduction); Biology 342 (Plant Taxonomy), 379 (Field Zoology); Geography 100 or 101 (Physical); Physical Education 241 (Camp Leadership).

Option B: 4-10 credits selected by the student and approved by the Dean of the College of Natural Resources.

## PAPER SCIENCE

The major in Paper Science is administered by the College of Natural Resources. It is described under Paper Science later in the catalog.

## RESOURCE MANAGEMENT

A. A major in Resource Management consists of:

1. Twenty-seven credits from the College of Natural Resources including Forestry 120; Natural Resources 170 , $372,474,490$; Soils 260; Water 180; Wildlife 140.
2. a. Teacher Certification option: 44 or 45 credits in collateral courses including Biology 130, 160, 205; Chemistry 105 or 115; Geography 101 or 103 or Geology 104; Mathematics 100 or placement above 100, plus 106 or 355 or three credits of Computer Science or placement into Mathematics 120; Natural Resources 300, 478; and 12 credits from the following: Economics 204, History 366, Philosophy 380, Political Science 304, Sociology 260.
b. Non-teaching option: 31 or 32 credits in collateral courses including Biology 130, 160, 205; Chemistry 105 and 106, or 115 and 116; Geography 103 or Geology 104; Mathematics 100 or placement above 100, plus 106 or 355 or three credits of Computer Science or placement into Mathematics 120.
3. Summer Camp courses including: Forestry 320, Soils 360 , Wildlife 340, Water 380.
B. A minor in Resource Management consists of 22 credits including Forestry 120, Natural Resources 474, Soils 260 , Water 180 , Wildlife 140 ; the remaining credits must be selected from courses offered by the College of Natural Resources numbered 300 and above. Those seeking teacher certification must select Natural Resources 300 and 478.

## SOIL SCIENCE

A. A major in Soil Science consists of:

1. Thirty credits including Natural Resources 170,372, 490; Forestry 120; Water 180; Wildlife 140; Soils 260, 362, 364, 461, 465.
2. Collateral courses: Biology 130, 160, 351; Chemistry 105 and 106 (or 115 and 116), 220, 248; Geology 104, and one additional 300 - or 400 -level geology or physical geography course (NR 377 qualifies); Mathematics 100; and Mathematics 106 or Computer Science 101 or 102 or Business 210; and Mathematics 116 and 117; Physics 201, 202.
3. Eight credits of Summer Camp courses: Forestry 320, Soils 360 , Wild life 340 , Water 380 .
B. A minor in Soil Science consists of 22 credits with at least 15 credits of Soils courses and includes:
4. Soils $260,362$.
5. At least two of the following: Soils 364, 365, 465 (majors in Forestry may substitute Soils 361 for one of these).
6. The remaining credits to be selected from the foliowing: Soils $360,361,363,364,365461,465,493$; Forestry 325, 332; Geography 352, 379; Geology 200, 370; Natural Resources 373; Geography 377 or Natural Resources 377.
The Soil Science minor satisfies the minimum civil service requirements for soil scientist positions (classification and mapping) in Federal agencies such as the Soil Conservation Service and the Forest Service. For a soil conservationist position, Natural Resources 373 is required.
The following courses are offered in Solls: (The symbols indicate the term(s) in which the courses are usually offered. I - First Semester, August to December; II - Second Semester, January to May; SS - Summer Session.)

## Courses in Soils

260. Introduction to Soll Resources. 4 cr . Origin and development of soil, with emphasis on physical, chemical, and biological properties and their relationship to soil fertility Three hrs lec, two hrs lab per wk. Prereq: One yr high school chemistry, or Chemistry 105 or eligibility for 115. Purchase of a laboratory manual is required. (I, ii)
261. Fleld Experience in Soil Inventory Methods. $11 / 2 \mathrm{cr}$. Techniques of describing, mapping, classifying, and interpreting soils for integrated resource management. Prereq: 260. (SS)
$361 / 561$. Forest Soils. 3 cr. Properties of soils in relation to silviculture and forest nursery management. Two hrs lec, two hrs lab per week. Prereq: Summer camp or cons instr. (I)

362/562. Soll Genesis and Morphology. 3 cr. Geologic origin, characteristics, and taxonomic grouping of soils, together with emphasis on survey methods and mapping procedures. Two hrs lec, two hrs lab per week. Prereq: Summer Camp or cons instr. (I, II)
363/563. Soil Profile Description Writing. 1 cr. The preparation of morphological descriptions of soil profiles. Prereq: Summer Camp or cons instr. (I, II)
364/564. Soil Analysis. 3 cr. Methods of determining physical and chemical properties of soils. Two hr lec, three hrs lab per wk. Prereq: Chem 116 or 106; Summer Camp or cons instr. (I, II)
365/565. Soil Survey Interpretation for Land Use Planning. 3 cr . Use of soil surveys in making interpretations for land use allocations and in determining suitability for facilities such as roads, dwellings, and septic system filter fields. Two hrs lec, two hrs lab per wk. Prereq: Summer Camp or cons instr. (I, II)
381/581. Internship in Soils. $1-12 \mathrm{cr}$. Supervised training program in soils management, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2 4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Wildlife 340, and Water 380; or Natural Resources 475; and/or cons intern director. (I, II, SS)

461/661. Soil Management. 3 cr . Principles and practices of soil conservation and soil fertility. Two hrs lec, three hrs lab per wk. Prereq: Summer Camp or cons instr. (I, II)
465/665. Soil Physics. 3 cr. Physical properties of soils and methods of determination, with emphasis on influences on plant growth. Two hrs lec, three hrs lab per wk. Prereq: Mathematics 100; Physics 201; Summer Camp or cons instr.
493/693. Soils Field Seminar. 1 or 2 cr. Spring vacation tour. See Field Seminar Program under Natural Resources. (II)
499. Special Work. Upper-class students in Soil Science may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-ofclass work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Prereq: Summer Camp or cons instr. (I, II)
760. Advanced Forest Soils. 3 cr . Advanced topics in the relationships between soil properties and silviculture, forest hydrology and nursery management. Prereq: 361/561 or cons instr. (on demand)

## 762. Advanced Soil Genesis, Mineralogy and Classifica-

 tion. 3 cr . Processes and theories of soil information; principles and systems of soil classification. Prereq: 362/562 or cons instr. (on demand)
## WATER RESOURCES

A. A major in Water Resources consists of:

1. Major study and electives to total 130 credits in addition to required physical education (total: 134 credits).
2. Twenty-two credits of courses in the College of Natural Resources: Forestry 120; Natural Resources 170, 490; Soils 260; Water 180, 480, 481; Wildlife 140.
3. Thirty-nine to 43 credits of collateral courses: Biology 130, 160, 205; Chemistry 105 and 106, or 114 and 115 and 116, or 115 and 116 and 248; Economics 200 or Natural Resources 372; Geology 104; Mathematics 112 and 120, or 116 and 117; Physics 201, 202.
4. And one of the following options:
a. The Fisheries Option consists of 1, 2, and 3 under A. above, and:
a.1. Twenty-nine or 30 credits consisting of: Biology 210, 281, 374; Chemistry 220; Mathematics 355 or Psychology 300; Water 483, 484; and five or six credits from two of these: Biology $338,360,362$; Water $384,387,389,482$, 487.
a.2. Six credits of summer camp courses: Forestry 320, Soils 360, Wildlife 340, Water 380.
b. 'The Limnology Option consists of 1,2, and 3 under A. above, and:
b.1. Thirty or 31 credits consisting of Biology 338, 351, 360; Chemistry 220; Mathematics 355 or Psychology 300; Water 389, 483; and six to eight credits from two of these: Biology 374; Water 382, 387, 482, 488.
b.2. Six credits of summer camp courses, as in a.2. above.
c. The Water Chemistry Option consists of 1,2 and 3 under A. above, and:
c.1. A minor in Chemistry, completed with Chemistry $225,226,228,248,330+338(1 \mathrm{cr})$, and 340 or 365.
c.2. Eight or nine credits consisting of Computer: Science 112; Water 382 or 488; and either Water 387, or Biology 338.
c.3. Six credits of Summer Camp courses as in a.2., above.
d. The Watershed Management Option consists of $1, k$ 2 and 3 under A. above, and:
d.1. Fifteen credits consisting of Computer Science 102; Geography 377; Water 382, 389; and 387 or Biology 388.
d.2. Six credits of summer camp courses: Forestry 320, Soils 360, Wildlife 340, Water 380.
d.3. Courses to satisfy the minor in Soil Science or in Forestry; or a concentration of courses. approved by the adviser.
B. A minor in Water Resources consists of 20 credits in the following courses: Soils 260; Water 180, 382, 480, 481, 482.

## Courses in Water

180. Introduction to Water Resources. 3 cr . Surface and subsurface water resources, their economic and social importance, control, and conservation. (I, II)
181. Field Experience in Aquatic Ecosystem Evaluation. 11/2 cr. Fishery, limnological, and hydrological evaluation; lake and stream inventory and evaluation for integrated resource management. Prereq: 180. (SS)
381/581. Internship in Water. 1-12 cr. Supervised training program in watershed management, fisheries, or water quality, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by the instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Wildlife 340, Soils 360,
Water 380; or Natural Resources 475; and/or cons intern director. (I, II)
382/582. Water Quality Management. 3 cr. Fundamental concepts in water quality management and special emphasis on selected water quality control systems. Prereq: Soils 260, or cons instr. (I, II)
387/587. Aquatic Insects. 3 cr . Collection and identification of lotic and lentic aquatic insects that are important in fishery and water quality evaluations. One hr lec, four hrs lab per wk. Prereq: Biology 160 or cons instr. (I)
389/589. Hydrology. 3 cr. Physical basis of surface and subsurface water occurrence and flow; measurement, anatysis and prediction of hydrologic phenomena. Two hrs lec, two hrs lab per week. Prereq: 180; and basic statistics course or cons instr. (II)
480/680. Water Analysis. 4 cr . Study and interpretation of ${ }^{\text {a }}$ chemical characteristics of polluted and unpolluted waters.

Two hrs lec, four hrs lab per week. Prereq: Chem 106 or 116 or cons instr. (1, II)
481/681. Limnology. 3 cr. Physical, chemical, and biological phenomena of freshwater communities. Prereq: Biol 205. (I, II)

482/682. Pollution Ecology. 3 cr. Effect of physical and chemical pollution on populations of aquatic plants and animals; relationship of pollution to man, including water quality requirements for recreation; public health, agriculture, and industry. Two hrs lec, two hrs lab per week. Prereq: Water 481 or cons instr. (I)
483/683. Limnology and Fisheries Methods. 2 cr. (First semester only.) Field and laboratory techniques for the investigation of lake and stream ecosystems. Four hrs lab per week. Prereq: 481 or con reg; and cons instr. (I)
484/684. Fisheries Management. 3 cr. Principles of management of inland waters for fish production. Prereq: 441; Biol 374; Summer Camp; or cons instr. (iI)
485/685. Ecology of Freshwater Benthic Indicator Organisms. 3 cr . Factors affecting the distribution and microhabitat selection of freshwater benthos including life history events, feeding mechanisms, drift, pollution biology. nutrient spiralling, and anatomical, behavioral and physiological adaptations. Prereq: $387 / 587$ and 481/681; or Biology 361/561 or cons instr.
486/686. Fish Culture. 2 cr. Principles, problems, and technique of fish culture under artificial conditions. One hr lec; two hrs lab per week. Prereq: 481, 484; or cons instr. (on demand)
The former 487/687 has been discontinued.
488/688. Water and Waste-Water Treatment. 3 cr. A nonengineering approach to the methods of water treatment, routine laboratory testing, and protection of systems; domestic waste disposal by water carriage and non-water carriage methods; small unit and municipal disposal methods. (II)
489/689. Groundwater Hydrology. 2 cr. Hydraulic, geologic, and chemical factors which influence the nature and management of sub-surface water resources. Prereq: 389 or 589 or cons instr. (II)
492/692. Advanced Techniques of Environmental Analysis. 3 cr . Theory and application of instrumental methods used in monitoring environmental samples; laboratory quality control, sample preparation, data handling: gas and liquid chromatography, flame and flameless atomic absorption, liquid scintillation counting, autoanalyzer use. One hr lec, four hrs lab per wk. Prereq: Chemistry 248; Water 480 or Soils 364. (II)
499. Special Work. 1-3 cr. Upper-class students in Water Resources may, by agreement with the Assistant to the Dean of the College of Natural Resources, arrange for special out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
780. Advanced Water Analysis. 3 cr. Chemical methods and instrumental analysis of water supplies and waste water; laboratory management for routine testing and analysis and advanced techniques for determinations of trace elements, pesticides, and other pollutants. Prereq: 480/680 or equiv, and con instr. (on demand)
781. Recent Advances in Pollution Ecology. 3 cr. A reading and discussion course on recent research in pollution ecology; detailed analysis of research methods, results, interpretation of data, and evaluations of the work with respect to management of surface water supplies. Prereq: Cons instr. (on demand)
784. Advanced Studies in Fish Management. 3 cr. Survey of the literature concerned with the ecology and management of fish populations. Prereq: 481/681 and 484/684; or cons instr. (on demand)
786. Indicator Organisms in Pollution Biology-Plant. 3 cr. Identification of organisms which are indicative of water quality; survey of the important literature, methods of data analysis, and correlation with physical and chemical qualities. Prereq: 481/681, and Wildlife 441/641, and cons instr. (on demand)
789. Advanced Hydrology. 3 cr. Modeling and systems theory in analysis of water resources management alternatives; application of hydrologic analysis to ecological problems. Two hours lec, two hours lab per week. Prereq: 389 or 589 or cons instr. (on demand)

## WILDLIFE

A major in Wildlife consists of:

1. Major study and approved electives to total 130 credits in addition to required physical education ( total: 134 credits).
2. Twenty-four credits of courses in the College of Natural Resources: Forestry 120; Natural Resources 170, 490; Soils 260; Water 180; Wildlife 140, 350, 353, 355, 451.
3. Sixty-two credits in collateral courses:
a. Biology 130, 160, 342, 370, 377, 378, 281 or 381;
b. Chemistry 105 and 106, or 115 and 116; and 220 or 260;
c. Mathematics 100 and 106, or 102 and 108, or (if eligible) 116; Computer Science 112; Mathematics 355 or Psychology 300.
d. Economics 200 or 204; or Natural Resources 372.
e. Three credits from Biology 490; Communication 210, 301, 332, 333, 335, 365, 400; English 250, 254, 354; Natural Resources 300, 320, 368;
f. Five credits from Natural Resources 371, 393, 473, 474, 480; Forestry 227; Political Science 250, 304, 308, 354
4. Six credits of summer camp courses: Forestry 320. Wildlife 340, Soils 360 , Water 380.
5. To be accepted as a major, to be retained as a major. and to be approved for graduation, the student must have a minimum grade point ratio of 2.25 in all courses taken within the Wildlife major, including collateral courses, regardless of a declaration of academic bankruptcy. The Dean of the College of Natural Resources may allow exceptions to the above on a conditional basis.
A minor in Wildlife consists of 21-24 credits:
6. Wildlife $140,350,353,451$.
7. Biology 372; or two courses selected from Biology 374, 376, 377, 378.
8. The remaining credits selected from Wildlife 355,454 ; Forestry 332; Water 481; Natural Resources 320, 393, 440, 473, 474; Soils 461.

## Courses in Wildlife

41. Wildlife Forum. 0 cr . Same as 141, except for no credit.
42. Introduction to Wildlife Resources, 3 cr . Wildlife resources of the United States; the importance of wildlife to our past and present economic and cultural life; selected problems in wildlife conservation. Prereq: Biol 160 or con reg. (I, II)
43. Wildlife Forum. 2 cr . Environmental issues related to the maintenance of wild animal populations with emphasis on the effects of land and water use upon animals. Will not fulfill the Wildlife 140 requirement. (on demand)
44. Field Experience in Wildlife Management Techniques. $11 / 2 \mathrm{cr}$. Investigation of ecological relationships and application of selected wildlife management techniques including habitat evaluation and capturing, marketing, monitoring, and censusing animals for integrated resource management. Prereq: 140. (SS)
350/550. Wildlife Management Techniques. 2 cr . Techniques of managing game populations; field mapping, food habitat studies, sexing and aging, game censuses, and control measures; emphasis on Wisconsin game populations. One hr lec, two hrs lab per week. Prereq: Summer Camp or cons instr. (I, II)
353/553. Wildlife Population Dynamics. 2 cr . Mathematical, ecological, physiological, and behavioral characteristics of wildlife population fluctuations. Prereq: WIdl 140 or Biol 160; Summer Camp; or cons instr. (I, II)
355/555. Wildlife Diseases. 2 cr . Infections, parasitic, and chemical diseases of wildlife, with emphasis on their occurrence, significance, and role as ecologic factors. Prereq: Cons instr. (I, II)
356/556. Wildlife Disease Methods. 1 cr. Methodology used to identify and study wildlife diseases in the field and laboratory. Three hrs lab per week. Prereq: 355/555 or con reg; or cons instr. (I)
381/581. Internship in Wildlife. 1-12 cr. Supervised training program in wildlife, coordinated by the faculty of the College of Natural Resources in cooperation with private or public resource agency professionals. One cr for 2-4 wks ( 40 hrs per wk) of work, with more rigorous internships receiving more credits. Additional requirements will be determined before registration. Credit will be determined by the instructor. May be repeated one time, but no more than 12 total credits will be allowed. Prereq: Forestry 320, Soils 360, Wildlife 340, and Water 380; or Natural Resources 475; and/or cons intern director. (I, II, SS)
450/650. Human Dimensions of Wildlife and Fisheries Management. 1 cr . A survey and evaluation of research relating to human dimensions of wildlife and fisheries management; review of values, satisfactions, and attitudes associated with consumptive and nonconsumptive uses of wildlife and fish. (I)
451/651. Management of Wildlife Habitat. 3 cr. Principles and practices of habitat management for wildlife in North

America. Two hrs lec, two hrs lab per wk. Prereq: Biology 205; Summer Camp; or cons instr. (I, II)
454/654. Non-Consumptive Uses of Wildlife. 2 cr . Life histories, behavior, and habitat requirements of wild animals as they relate to management for use other than harvest.
Prereq: 340 or cons instr. (II)
456/656. Wildlife Economics. 1 cr. Determination of economic and other values of wildlife, fish, and outdoor recreation; application to environmental impact statements, and mitigation of wildlife losses. Two hrs lab per wk. Prereq: 140; Economics 200 or Natural Resources 372. (on demand)
493/693. Wildlife Field Seminar. 1 or 2 cr. For one credit, the course may be taken on a pass-fail basis; for two credits, the completion of a comprehensive report on the field experience is required. Prereq: Cons instr. (See also Field Seminar Program under the Natural Resources heading.) (II)
499. Special Work. Upper-class students majoring in Wildlife may, by agreement with the Assistant to the Dean, arrange for special out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. (I, II)
742. Wildlife Population Statistics. 3 cr . A study of the collection and analysis of data from wild populations including the development of ecological models. Two hrs lec, two hrs lab per week. Prereq: Water 484/684 or WIdl 451/651 or equiv; Math 107 or equiv and 225 or equiv; and cons instr. (on demand)
752. Advanced Studies in Wildlife. 3 cr. Survey of the literature concerned with the ecology and management of ter-. restrial animals. Prereq: 451/651 or cons instr. (on demand)

## NATURAL SCIENCE <br> (College of Letters and Science)

Allen Blocher, Gregory Kulas; Program Directors.
Room B-111, Science Building.
Phone: (715) 346-2139.
The major in Natural Science may be applied toward a degree in the College of Letters and Science. It may also be used, in the School of Education; College of Professional Studies, for Department of Public Instruction certification in Broad Field Natural Science.
A. A major in Natural Science consists of 54 credits selected from one of the following options:
OPTION I. Natural Science with an Earth Science emphasis:

1. Twenty-four credit minor in Earth Science:
a. Geography 101 and Geology 101, 10 credits.
b. Astronomy 105 and 106, eight credits.
c. Three credits each from two of the following groups:
(1) Geography 352, 353, 354;
(2) Geology 200, 339, 340, 370, 380;
2. Ten to 14 credits of Biology, including Biology 130 and 160.
3. Eight to 14 credits of Chemistry, including Chemistry 105 and 106; or 115 and 116.
4. Ten to 14 credits of Physics, including Physics 103 and 104; or 150 and 250.
5. At least 14 credits must be earned in one of the areas listed in items 2, 3, or 4 above.

Natural
Science
6. Collateral requirements: Mathematics 100 and 106 , or eligibility for 120.
OPTION II. Natural Science with a Life Science emphasis:

1. A 22 credit minor in Biology.
2. Eight to 14 credits of Chemistry, including Chemistry 105 and 106; or 115 and 116.
3. Eight to 14 credits of Earth Science selected from:

Geography 101, 102, 103, 352, 353, 354;
Geology 101, 104, 105, 200, 339, 340, 370;
Astronomy 105; 106 or 311 or 370; 371.
4. Ten to 14 credits of Physics, including Physics 103 and 104; or 150 and 250.
5. At least 14 credits must be earned in one of the areas listed in items 2, 3, or 4 above.
6. Collateral requirement: Mathematics 100 and 106, or eligibility for 120.
ORTION III: Natural Science with a Physical Science emphasis:
f. A minimum of 36 credits in Physical Science:
a. A minor in either Chemistry ( 23 cr ) or Physics (22 cr);
b. Fourteen credits in the other area.
2. Biology 130 and 160 ; ten credits.
3. Eight to 10 credits of Earth Science selected from: 'Geography 101, 102, 103, 352, 353, 354;
IsiGeology 101, 104, 105, 200, 339, 340, 370;
bre Astronomy 105; 106 or 311 or 370; 371
4. Collateral requirement: Mathematics 100 and 106, or to nceligibility for 120.
B. A Broad Field minor in Natural Science for the Elementary Education Curriculum consists of 25 credits, at least five of which are to be selected from each of the following areas:

1. Earth Science:
a. Astronomy 105; 106 or 311.
b. Geography 101, 352, 353, 354.
c. Geology 101, 200, 339, 340, 370, 380.
2. Life Science:
a. Biology 101, 130, 360.
3. Physical Science:
a. Chemistry 101, 103, 105, 106, 114, 115, 116.
b. Physics 101, 103, 104, 150, 250.

## OUTDOOR EDUCATION

The minor in Outdoor Education is described under Natural Resources, earlier in this catalog.

## PAPER SCIENCE

(College of Natural Resources)
Michael J. Kocurek, Chair.
Room D-127, Science Building.
Phone: (715) 346-4817.
A major in Paper Science consists of major, collateral, and University general degree requirements totaling 136 credits (plus physical education) as follows:

1. ${ }^{5}$ Forty five credits in Paper Science courses, including $210,215,320,326,350,355,365,430,440,475,485,486$, 490, 495.
2. Mill internship-three credits: Paper Science 300.
3. Chemistry 115 and 116 (or 105 and 106), 225, 226, 228, 248, 330 (or 335, 336); 338. (These courses satisfy requirements for a minor in Chemistry.)
4. Collateral courses: Computer Science 112; Economics 200; Mathematics 120, 121, 222, 355 (or 351, or Economics 330, or Psychology 300); Physics 150, 250; Water 480.
A minimum grade point ratio of 2.50 is a prerequisite for acceptance of the student as a major at the start of junior year.
Grades of D+ or lower cannot be accepted as satisfying prerequisites for any Paper Science course. A maximum of one grade of D+ or below in required Paper Science courses, and collateral requirements numbered 300 or above, may be applied to the major.
Students not meeting these standards may petition the chair of the department for consideration.

## Courses in Paper Science

101. Introduction to Pulp and Paper Processes. 2 or 3 cr. A survey of the pulping and papermaking processes with emphasis on present technology and use of raw materials; field trips to observe commercial operations. Two hrs lec, one hr disc (for 3rd credit) per week.
102. Freshman Forum. 1 cr. Orientation to technical and professional aspects of the paper and allied industries; presentation of information by students, faculty, and guest lecturers.
103. Pulp and Paper Laboratory Methods. 3 cr. Precision laboratory methods in pulp, paper, and nonfibrous testing; microscopic techiniques; emphasis on statistical analysis of data. One hr lec, four hrs lab per week. Prereq: Chem 116 or 106 , or cons instr.
104. Principles of Mass and Energy Balance. 4 cr. Basic principles of process calculations; stoichiometric relations, heat and material balances, thermodynamic properties of steam, behavior of ideal and real gases, and combined heat and material balances. Prereq: Chem 116 or 106, or cons instr.
105. Mill Internship. 3 cr. Paper Science majors are required to work ten weeks in a pulp and paper mill, with emphasis on manufacturing assignments. The student must submit a comprehensive report on the process. Prereq: Cons chmn.
106. Electrical Engineering Concepts. 1 cr. Electromechanical energy conversion systems: alternating and direct current machinery; automatic sequences relay logic, as applied to pulp and papermaking process systems. Prereq: Physics 250 or cons instr.
107. Principles of Corrosion. 2 cr. Basic mechanism and causes of corrosion; electrochemistry; metallic oxidation; protection mechanisms and techniques; anodic and cathodic protection coatings; applications to pulp and paper mill systems. Prereq: Chem 330 or 335 , or cons instr.
108. Mechanics of Deformable Media. 2 cr. Principles of stress, strain, and rate of strain; bending, shearing, and compound stresses in beams; elastic, plastic deformations, creep; mechanics of fibers, paper, and paperboard. Prereq: Physics 150 or cons instr.
109. Engineering Statistical Design and Analysis. 2 cr. Statistical methods for the design, analysis, and improvement of engineering experimentation and process operation: experimental design, regression analysis, analysis of variance, and evolutionary operation. One hr lec, two hrs lab per wk. Prereq: Mathematics 351 and 352 , or 355 ; or Economics 330; or Psychology 300; or con reg. A course in Computer Science is recommended but not required.
110. Fluid Mechanics and Hydraulics. 3 cr. Properties of fluids; momentum transport phenomena; laminar and turbulent flow; measurement and control of flow; fluid machinery; engineering calculations and design; economic factors. Two hrs lec, three hrs lab per week. Prereq: 215; Mathematics 212; Physics 150; or cons instr.
111. Heat Transfer Operations. 3 cr. Fundamental heat transfer mechanisms: conduction, convection, and radiation; heat transfer coefficients; heat exchange equipment; evaporation and evaporator systems; drying; economic factors; applications specific to pulp and paper processes; study of field operations. Two hrs lec, three hrs lab per week. Prereq: 320 or cons instr.
112. Wood and Pulping Technology. 4 cr. Cellulose, hemicelluloses, lignin; wood extractives, wood and fiber microstructure; commerical pulping and bleaching processes. Three hrs lec, three hrs lab per week; field operations. Prereq: Chem 220 or 226.
113. Paper and Fiber Physics. 4 cr. Fiber structure and properties; interfiber bonding; mechanical, optical, chemical properties of paper; interrelations between structure, manufacturing consolidation factors, and ultimate properties. Three hrs lec, three hrs lab/disc per wk. Not to be counted toward the majór or minor in Physics. Prereq: 350 or cons intr.
114. Colloid and Surface Phenomena. 3 cr. Principles of colloid and surface chemistry; electrokinetic and base exchange phenomena; thermodynamics of interfacial systems; adsorption; applications to coatings, flocculation, fillers, and wet end additives. Prereq: Chem 330 or 335.
115. Research Problem. 1 to 3 cr . Upper-class students majoring in Paper Science may, with consent of the chair, arrange for special laboratory or field research in consultation with staff and industry. Emphasis is placed on problem analysis, literature searches, and communication of research results. Credit is awarded on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
116. Mass Transfer Operations. 3 cr . Fundamental concepts; mass transfer coefficients; gas absorption; filtration; extraction; pulp washing systems; sedimentation; cooling, humidification, air conditioning; drying; applications specific to pulp and paper processes; study of field operations. Two hrs lec, three hrs lab per week. Prereq: 326 or cons instr:
117. Industrial Thermodynamics and Kinetics. 4 cr . Thermodynamic properties; energy and entropy balances; thermodynamics of energy conversion: combustion, steam, vapor power cycles; energy recovery systems; chemical kinetics and reaction engineering; economic and environmental factors; applications specific to pulp and paper processes; study of field operations. Three hrs lec, two hrs
lab/disc per wk. Prereq: 326 and Chemistry 330 or 335; or cons instr.
118. Process Dynamics and Control. 4 cr. Dynamic model: formulation and solution, utilizing Laplace transform, analog, and digital computing techniques; control theories, strategies, and equipment; controller tuning; applications specific to the pulp and paper processes; study of field operations. Three hrs lec, three hrs lab per wk. Prereq: Mathematics 212.
119. Transport Operations in Fibrous Systems. 3 cr. Hydrodynamics of fibrous suspensions; dynamics of sheet formation and water removal; fundamentals of pressing; analysis of the drying process in terms of heat and mass transfer; economic factors; engineering calculations performed on full scale production papermachine. Two hrs. lec, three hrs lab per week. Prereq: Cons instr.
120. Systems Engineering and Simulation. 2 cr . Modeling and simulation of pulp and papermaking systems; computer systems analysis; commercially-available simulation hardware and software (emphasizing GEMS); model building for engineering systems; industrial case histories and economic systems optimization. One hr lec, three hrs lab per wk. Prereq: Cons instr.
121. Engineering Design Project. 3 cr. Engineering economics; interest and economic equivalence; methods of comparing project and investment alternatives; individual student project: project definition; equipment selection and sizing; capital and operating cost estimation; economic evaluation and justification; oral and written presentation of project. Two hrs lec, one hr disc per wk. Prereq: Con instr.
122. Seminar I. 1 cr . Orientation to technical and professional aspects of the paper industry; effective use of literature, and technical communication techniques; presentation of information by students, staff, and guest lecturers. Prereq: Senior standing in paper science, or cons instr.
123. Seminar II. 1 cr . Use of the literature, procedures in designing a research project, and the presentation of information by students, staff, and guest lecturers. Prereq: Senior standing or cons instr.

## PEACE STUDIES (College of Letters and Science)

Charles H. Rumsey, Coordinator. Room 476, College of Professional Studies Building. Phone: (715) 346-2186.
A minor in Peace Studies consists of 22 credits, distributed as follows:

1. Thirteen credits from Peace Studies courses, at least six of which will be in courses numbered above 300.
2. Nine credits from the courses listed below, chosen from at least two departments:
Anthropology 330 (Anthro of Politics); Geography 110 (Economic), 368 (World Popułations and Resources); History 274/374 (US Military), 320 (European Economic), 327 (Recent World Politics), 373 (American Diplomacy); Philosophy 305 (Ethics); Political Science 280 (International Relations), 382 (International Organizations and Law), 396 (Radical and Utopian Politics); Religious Studies 210 (Religious and Moral Problems);

Sociology 310 (Social Psychology), 312 (Propaganda and Public Opinion).

## Courses in Peace Studies

100. Dimensions of a Peaceful World. 3 cr . An interdisciplinary study of alternatives to violence and war, including biological, psychological, economic, political, philosophical, and humanistic alternatives.
101. The Social Matrix of War. 3 cr . Economic, political, and social forces which give rise to war, and the social dislocation resulting from war. May be used as Social Science credit in meeting general requirements for a degree.
102. Non-violence. 3 cr . Philosophy, history, and strategy of various non-violent movements, such as those of Gandhi and Martin Luther King. May bé used as Humanities credit in meeting general requirements for a degree. Prereq: So st.
103. The Personal Element in Peace. 3 cr. Exploration of how a peaceful person develops, survives, and contributes to society; theories of man with emphasis on humanistic and interpersonal concepts; theories of love, love as giving meaning to life, and its expression in government and business. May be used as Humanities credit in meeting general requirements for a degree. Prereq: So st.
104. War and the Arts. 3 cr . Images of war favorable and critical in literature, painting, and the popular arts. May be used as Humanities credit in meeting the general requirements for a degree. Prereq: So st.
105. Dimensions of a Peaceful World. 3 cr. Same as 100 , for juniors and seniors.
106. Peace Movements. 3 cr . Evaluation of the history and effectiveness of selected peace movements.
107. Theories of War and Aggression. 3 cr. Various definitions of war; justifications by which men like Augustine, Clausewitz, Angell, Freud, Lorenz, Montagu, and others have explained war and aggression. May be used as Social Science credit in meeting the general requirements for a degree.
108. The Arms Race and Arms Control. 2 or 3 cr . The international arms race and the problems of arms control from 1945 to the present; future prospects for arms control.
109. Economics of War and Peace. 3 cr. Economic analysis of war and peace; the costs and benefits of each, their impacts on employment, inflation, growth, trade, and budgets; evaluation of present and future economic trends as applied to war and peace. May be used as Social Science credit in meeting general requirements for a degree.
110. Futures. 3 cr. Possible futures for mankind on earth; surveys of projections of observed social and scientific trends and alternative social systems relating to the question of the survival of mankind. May be used as Social Science credit in meeting general requirements for a degree.
111. Special Work. 1 to 3 cr. Upper-class students may, by arrangement with an instructor, enroll for special work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to the independent study. Written proposals for special work must be submitted to the Peace Studies Committee for approval.
112. Seminar. 3 cr . Intensive study of selected persons, movements, or problems. The topic dealt with will be indicated by a subtitle each time the course is offered. Prereq: Cons instr.

## PHILOSOPHY <br> (College of Letters and Science)

John P. Zawadsky, Chair.

Room 489, Collins Classroom Building.
Phone: (715) 346-3340.
A. A major in Philosophy consists of a minimum of 27 credits including courses to be taken in the following areas:

1. History: Philosophy 217 and 218.
2. Logic: Philosophy 221 or 222.
3. Value Theory: One course to be selected from Philosophy 220, 303, 305.
4. Systematic: One course to be selected from Philosophy 306, 310, 312, 318.
B. A major in Philosophy with a concentration in Rellgious Studies consists of a minimum of thirty-three credits including courses to be taken in the following areas:
5. The Philosophy core: The requirements in $A$ above must be met; except that in 1., only 217 is required; Religious Studies 210 may be substituted in 3 ;; and Philosophy 320 may be substituted in 4.
6. The Religious Studies concentration:
a. Historical background: Religious Studies 103 or 104; and 100 or Philosophy 105. ( 6 cr.)
b. Phenomenology of religion: One couse selected from Religious Studies 102, 316, 330. (3 cr.)
c. Western religious thought: Religious Studies 300 or 301. (3 cr.)
d. The remaining nine credits are to be selected, with the advice of the departmental adviser, from Religious Studies and collateral courses. The latter include Anthropology 320; Comparative Literature 240; History 316; Philosophy 105, 207, 335, 337, 338; Sociology 431.
C. A minor in Philosophy consists of a minimun of 18 credits including Philosophy 217 and 218, and one course to be selected from Philosophy 220, 221, 303, 305, 222.
A minimum of 34 credits is required for teacher certiffcation with a major in Philosophy, and a minimum of 22 credits for a minor; all other requirements are the same.
To ensure that a student's program is as well planned as possible, the Philosophy Department requires that each major or minor must have a departmental adviser.

## NOTES:

1. All philosophy courses to be applied toward the major or minor are to be selected with the approval of the student's departmental adviser.
2. Selected upper division courses in Religious Studies may be applied to the philosophy major or minor with the approval of the student's departmental adviser
where such inclusion would clearly strengthen the student's philosophy program.
3. A minimum grade point ratio of 2.00 in philosophy courses taken is a requirement for acceptance, for continuation, and for departmental approval for graduation as a philosophy major. No philosophy course with a grade lower than C nor a course taken pass/fail may be counted toward the major. The chair of the department may allow exceptions to these standards.

## Courses in Philosophy

100. Introduction to Philosophy. 3 cr. A survey of the important problems in philosophy such as the nature of reality, knowledge, value, God and man.
101. Contemporary Moral Problems. 3 cr. An attempt to clarify selected contemporary moral issues through an application of the insights of moral philosophy and the tools of critical reflection.
102. Philosophical Classics. 3 cr . Reading and discussion of one or more philosophical texts designed to acquaint the student with examples of sustained philosophical argument and mature defense of philosophical proposals. Prereq: 3 cr of Philosophy or cons instr.
103. Philosophies of Life. 3 cr . An introduction to philosophies of life, East and West, that have guided men and women throughout history.
104. Philosophy and Religion of India and China. 3 cr. An introduction to the origin and development of Indian and Chinese thought and religion, with special emphasis on Hinduism, Buddhism, Taoism, and Confucianism.
The former 181 is now 381.
105. (Formerly 221) Critical Thinking. 3 cr. Fundamental principles of reasoning, with an emphasis on the recognition, analysis, and evaluation of arguments, and on the selection and testing of hypotheses.
106. Intellectual Revolutions of the Modern World: Marx, Darwin, Freud. 3 cr . An examination of the documentary sources of three intellectual movements which have shaped the culture of the twentieth century. Prereq: So st.
202/302. Ethics and Medicine. 3 cr . A critical examination of ethical issues in medicine and health care.
107. Classical Christian Metaphysics. 3 cr. An examination of the development of philosophy from St. Augustine through St. Thomas Aquinas to William of Occam. Prereq: So st.
108. History of Ancient Greek Philosophy. 3 cr. The preSocratics, Plato, Aristotle, and post-Aristotelian philosophers. Prereq: So st.
109. History of Early Modern Philosophy. 3 cr. Major philosophic movements and figures from the Renaissance through Immauel Kant. Prereq: So st.
110. Problems in Political and Social Philosophy. 3 cr. A systematic analysis of the fundamental concepts of political and social theory including the concepts of the state, of law and rights, of political obligation, of authority and power, and of justice. Prereq: So st.
The former 221 is now 121.
The former 222 is now 322.
111. Introduction to Philosophy of Education. 3 cr. Representative theories of education and issues of current educational concern. Prereq: So st.
112. Philosophy in a Literary Mode. 3 cr. Selected popular works with philosophical interest will be interpreted and discussed; a subtitle will be added each time the course is offered, indicating the specific selection.
113. Philosophy of Art. 3 cr . An examination of traditional and contemporary theories about the nature and function of art, the processes of artistic creation and appreciation, and philosophical problems in art criticism.
114. Ethics in Business and Economics. 3 cr. Readings and case studies in ethical concepts and their application in business management, economic policy, and the organization of work.
305/505. Ethics. 3 cr . A critical examination of moral concepts and representative ethical systems.
115. Philosophy of Science. 3 cr. An examination of scientific theories in terms of their content and structure, their explanatory function, and their confirmation. Prereq: 3 cr in philosophy or cons instr.
116. Nineteenth Century Philosophical Thought. 3 cr . Philosophy and related ideas of the century of ideology and progress including such figures as Hegel, Darwin, Marx, and Mill, and their influence on post-nineteenth century philosophy. Prereq: 3 cr in philosophy or cons instr.
117. Contemporary Philosophy. 3 cr . The philosophic trends of the 20th century including Existentialism, Logical Positivism, Ordinary Language Philosophy, and Phenomenology. Prereq: 3 cr . in philosophy or cons instr.
118. Metaphysics. 3 cr . A study of the nature, limits and structure of ultimate reality and its relation to the sciences. Prereq: 3 cr in philosophy or cons instr.
119. Epistemology. 3 cr. A study of nature, limits and bases of human knowledge. Prereq: 3 cr in philosophy or cons instr.
120. Moral Issues in Law and Social Policy. 3 cr. A critical study through legal case materials of issues common to law and morality, including morals and legislation, civil rights, and the justification of punishment.
121. Philosophy of Law. 3 cr . An examination of legal concepts, natural law, and the logic of legal reasoning. Prereq: 3 cr in philosophy or cons instr.
122. Philosophy of History. An investigation of historical knowledge and explanation, together with an analysis of representative theories in history; e.g., J.S. Mill, Hegel, Marx, Toynbee, Collingwood, Hempel and Popper. Prereq: 3 cr in philosophy or cons instr.
123. Philosophy of Language. 3 cr . An introduction to theories of meaning and the role played by language in man's conception of the world. Prereq: 3 cr of philosophy or cons instr.
124. Philosophy of Religion. 3 cr . The basic problems of the philosophy of religion, such as the existence of God, the problem of evil, religious language, and immortality.
325/525. Educational Philosophy of Pragmatism. 3 cr . The educational philosophy of pragmatism, concentrating on the writings of John Dewey. Prereq: 3 cr in philosophy or cons instr.
125. Existential Philosophy. 3 cr. Phenomenology and the philosophy of human existence from Kierkegaard to Sartre.
126. (Formerly 222) Symbolic Logic. 3 cr. Introduction to symbolic logic with particular attention to truth functions, general quantification theory, including the scope and limits of formal logic. Prereq: 121 or cons instr.

331/531. History of Pre-Revolutionary Russian Philosophy. 3 cr . The development of Russian religious and philosophic thought from its Byzantine origins to the end of the nineteenth century.

332/532. Development of Soviet Ideology. 3 cr . An examination of the sources and evolution of historical and dialectical materialism-the philosophy of the Soviet Union.
335. Basic Texts of Hinduism and Buddhism. 3 cr. A systematic examination of classical Indian philosophic texts such as the Upanishads, the Yoga Sutras, the Bhagavad Gita, or the Prajnaparamita literature of Buddhism. Prereq: 105 or cons instr.
336. Contemporary Indian Thought. 3 cr . A history of Indian thought from Ram Mohan Roy to Mohandas Gandhi with special emphasis on the influence of both the classical Indian tradition and Western philosophy. Prereq: 3 cr in philosophy or cons instr.
337. Indian Yoga. 3 cr . The history, theory, and practice of Indian yoga from the Upanishads to the modern period. Prereq: 105, Religious Studies 100, or cons instr.
338. Chinese Philosophy. 3 cr. Origins and development of the major schools of Chinese thought, concentrating on texts from various periods. Prereq: 105 or const instr.
340. American Philosophy. 3 cr. Philosophical trends and thinkers in American religious, political, and scientific thought from the colonial period to the present century.
380. Environmental Ethics. 3 cr. Philosophical, religious, and scientific concepts and values which have structured human attitudes toward the natural environment; alternative concepts and values will be explored.
381. (Formerly 181) American Indian Environmental Philosophies. 3 cr . Traditional and contemporary American Indian thought in regard to man, the natural world, and their interrelationship with present Wisconsin tribes.

385/585. Workshop in Environmental Aesthetics. 2 or 3 cr. An exploration of concepts and criteria for the appreciation and articulation of natural beauty. Prereq: 380 or cons instr.
395. Philosophical Problems. 3 cr. A significant philosophical problem and the literature that bears on it; a subtitle will be added each time the course is offered. Prereq: 3 cr in Philosophy or cons instr.
399. Independent Study. 1 to 3 cr . An independent study of a philosophical problem, theme, thinker, or period of special interest to the student may be arranged with an instructor in the department, in consultation with the chair. Number of credits will depend on scope of the project.
490/690. Seminar. 3 cr, Intensive study of a major philosophic figure or topic. A subtitle indicating the figure or topic will be added each time the course is offered. Prereq: Cons instr.

## PHYSICAL EDUCATION (College of Professional Studies)

Alice L. Clawson, Associate Dean of the College of Professional Studies and Head, School of Health, Physical Education, Recreation, and Athletics (HPERA). Room 127, HPERA Building.
Phone: (715) 346-3147.
NOTE: Courses leading to the completion of a professional program offered in the School of Health, Physical Education, Recreation, and Athletics (Physical Education, Coaching. Health, Recreation, Safety) may not be taken on PassFail.
A. A major in Physical Education has three available options:
Option I. The comprehensive option in Physical Education consists of 54 credits:
a. Physical Education 101 (sections in Advanced Life Saving and in Water Satety Instructor), 105, 120, 125, 126, $127,128,225,252,271,310,312,321,331,332,360,380$, 391, 428; Coaching 351; and (collateral courses) Dance Education 217, and Biology 285.
b. Initial laboratory science shall include Biology 160, and either Chemistry 101 or Physics 101.
c. Students who choose to be certified at both elementary and secondary levels must do student teaching at both levels. A minor is highly recommended to enhance employment opportunities.
d. This option fulfills the Physical Education requirement for a degree.
Option II. The option for K-8 teacher certification consists of 34-35 credits:
a. Physical Education 105, 120, 252, 271, 310, 321, 331. 332, 360; Health Education 280.
b. The remaining $8-9$ credits shall be selected from Physical Education 125, 126, 127, 128, 225, 312, 391; Recreation 241, 343.
c. Required collateral courses: Biology 285; Psychology 260 or Early Childhood Education 200; Dance Education 217, 220.
d. A minor is highly recommended to enhance employment opportunities.
Option III. The option which does NOT lead to teacher certification consists of 51 credits:
a. Physical Education 101 (Advanced Life Saving), 105, 120, 252, 271, 310, 312, 360, 400; Coaching 351. (Required collateral courses: Biology 285, Home Economics 351.)
b. Physical Education 101 (Stress Management and three other sections selected from: Weight Training, Aerobics, Gymnastics, Self Care, Dance, Healthy American. These sections satisfy the general physical education requirements for a degree.
c. One additional course must be selected from Communication 211, 335, 336.
d. Eleven credits from the following: Business 380; Economics 200; Health 104, 145; Psychology 480; Sociology 265, 315.
e. A minor is highly recommended to enhance employment opportunities.
B. A minor in Physical Education for the Handicapped (for Physical Education majors) consists of 24 credits:

1. Required courses: Physical Education 214, 317, 318, 326; Recreation 141; three credits from Education 353, 354; Psychology 361; at least four credits from Physical Education 315, 319, 320.
2. Recommended collateral courses to expand preparation (not required): Communicative Disorders 252, 266; Education 388; Psychology 360.
C. A minor in Coaching consists of $\mathbf{2 2}$ credits:
3. Coaching 181, 351, 361, 371, 372; Physical Education 271, 391.
4. At least one course from Coaching 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294.
D. A minor in Health Education consists of 22 credits:
5. Biology 285; Health Education 104, (three modules), 140, 144, 340; Home Economics 351; Physical Education 253 or 353.
6. The remaining 2 or 3 credits shall be selected from Bi ology 333, 383; Communication 390; Education 388; Instructional Resources 331; Physical Education 102, 254; Psychology 170, 315; Safety Education 177, 393; Sociology 224, 240, 308.
Students preparing to teach must take Health Education 427 as one of their techniques courses, and must take Education 398 (Student Teaching) at all levels in which certification is sought.
E. A minor in Recreation consists of 22 credits:
7. Recreation 141, 142, 241, 343; Safety Education 177; Forestry 227.
8. At least six credits from the following: Art 348; Biology 204 or 205; Dance 103, 108, 110, 216; Dance Education 217; Drama 383; Education 350; Forestry 330, 394, 480; Geography 101; Music 200; Natural Resources 370.
F. A minor in Safety Education consists of 24 credits.
9. Safety Education 177, 277, 379, 380, 392/592, 393/593; Physical Education 252.
10. At least six credits from the following: Safety Education 220, 306, 374/574; Education 370 (Motorcycle); Learning Resources 331/531, 332; Psychology 301, 315, 351; Sociology 230, 312, 332.
NOTE: Certification for High School Driver Education Instructors requires Safety Education 177, 277, 379, 392/592, $393 / 593$, and a teaching certificate.

Students taking the Safety Education minor who wish to teach Driver Education and/or Safety Education are required to take three to five credits of Education 398 in Driver and Safety Education, in addition to Education 398 in the major field.

## NOTES:

1. All curricula in the University require four credits of Physical Education 101 for a degree. Students will register in one section of Physical Education 101 in each of their four academic years; they may not repeat the same activity at the same level. Students cannot apply more than one credit of Intramurals or Athletics for the four-credit Phy Ed 101 requirement for graduation.

ATTENTION ATHLETES! WSUC eligibility rules require a 12 hr . study load in each semester. Phy Ed 101 Athletics - may not be counted in these 12 credits.
2. Students with medical restrictions are expected to fulfill the four-credit requirement in physical education. Contact the office of the School of Health, Physical Education, Recreation and Athletics prior to or during the first week of the first semester in school; in subsequent semesters, make arrangements during the registration period.
3. Students who transfer to this University are expected to fulfill the physical education requirement on the basis of one credit per year.
4. Majors in Physical Education and minors in Coaching, Health Education, Recreation and Safety Education must declare their intentions to pursue these programs in the office of the Coordinator of Professional Studies, Room 123 of the Physical Education Building, for purposes of program guidance.
5. Students may elect additional courses in Physical Education beyond the four-credit general requirement.
Credit in these courses will satisfy general elective options, and will count toward graduation.

## Courses in Coaching

181. Theory and Techniques of Officiating. 2 cr . Mechanics and techniques of officiating interscholastic athletic contests; field work required; preparation for WIAA certification.
282-293. Coaching of Specific Sports. Each 2 cr. Theory and techniques, training schedules, strategy, coaching methods, and conditioning. Prereq: So st.
182. Basketball; 283. Wrestling; 284. Football; 285, Baseball; 286. Track and Field; 287. Soccer; 288. Ice Hockey; 289. Swimming; 290. Volleyball; 291. Tennis; 292. Gymnastics; 293. Golf.
183. Athletic Training and Taping. 2 cr. Cause, treatment; and prevention of injuries common to athletic activities; taping, bandaging; discussion of such topics as rehab̈ilitation, conditioning, and variable factors of athletic performance levels. Prereq: valid first aid certificate or medical self-help certificate; Phy Ed 271.
184. Practicum in Coaching. 2 cr. Practical experiencest In coaching sports at various educational levels. One hrilec, two hrs lab per wk. Prereq: Phy Ed 181 and at least two coaching theory courses.
185. Scientific Concepts of Coaching. 3 cr . Principles pf mechanics and laws of physics; physiological phenomenon of activity. Prereq: Phy Ed 271.
186. Motivational Aspects of the Athlete. 3 cr . The sociocultural aspects of sport as they apply to human movement
187. Advanced Athletic Training. 3 cr . Advanced evaluation and rehabilitation procedures of the athlete. Prereq: 351, 371; or Physical Education 312.
397/597. Workshop in Coaching. Variable credit. Designed to allow students to participate in special experiences re- . lating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.
188. Special Work. Upper-level students minoring in Coaching may arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Work must be pre-arranged and a statement filed in the office of the Coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the coordinator.
189. Seminar in Current Issues. 1 to 3 cr . Specific focus will be indicated by a subtitle each time the course is offered.
190. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the sfudent's preparation in the area of specialization; regularly scheduled conferences with a staft supervisor, through arrangement with the Head of HPERA
191. Workshop in Coaching. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.

## Courses in Health Education

104. Current Health Issues. $1-4 \mathrm{cr}$. Health topics emphasizing factual information to provide the student with essential knowledge for healthful living.

Module 1. Wellness, fitness, consumer health. 1 cr .
2. Mental and emotional health, sexuality. 1 cr .
3. Alcohol and other drugs. 1 cr .
4. Disease, immune process, environment and health. 1 cr .
140. Responsible Sexuality. 2 cr. Sexual development in America, reproduction and contraception, and related issues; development of skills in presenting this knowledge to children in classroom and family settings.
144. Principles of School Health Programs. 3 cr. Principles and practices of administering the comprehensive school health program.
145. Health Care Administration. 3 cr . Introduction to personal and community health systems; trends in health care and promotion resources.
280. Health Education in the Elementary School. 3 cr. Principles, techniques, and materials applied to teaching health in the elementary school; collateral emphasis on personal health behavior. Prereq: So st.
340. Curriculum and Resources in Health Education. 3 cr. Curriculum design, content, and resources, with practical experience and field problems in Health Education and community resources. Prereq: 104, 144.
397/597. Workshop in Health Education. Variable credit. Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.
399. Special Work. Upper-level students minoring in Health Education may arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Work must be pre-arranged and a statement
filed in the office of the Coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the Coordinator.
427. Techniques in Elementary and Secondary Education: Health Education. 2 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in elementary and secondary teaching. May be taken no earlier than one semester prior to student teaching.
790. Seminar in Current Issues. 1 to 3 cr . Specific focus will be indicated by a subtitle each time the course is offered.
796. Independent Study. $1-3 \mathrm{cr}$. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the Head of HPERA.
797. Workshop in Health Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.

## Courses in Physical Education

101. Physical Education. 1 cr. Developmental, individual, recreational, and educational activities which lead to health maintenance, cardio-vascular efficiency, fitness and self-care skills.
Students select two credits from group A (Leisure Pursuits) and elect two credits from any of group A or group B (Health and Safety Enhancement) or group C (Athletics or Intramurals). Activities are listed by groups in the timetable. Certain Dance courses may be substituted in group I (see descriptions under Dance). Physical Education 120, $125,126,127,128,225,231$, and 232 may be substituted if specified for the student's major or minor.
102. The Healthy American. 2 cr. Design, prescription, and implementation of personal exercise programs; life-style assessment, diet techniques, stress management fitness theory. Eight wks lec (two hrs per wk), eight wks independent activity study. This course may be used in group B toward the Physical Education requirement for a degree.
103. Introduction and Principles of Physical Education. 2 cr. Philosophy, aims, and objectives; leadership qualities necessary to major in Physical Education.
104. Foundations of Motor Learning. 3 cr . Introduction to motor learning theory, principles, and practices as related to exercise programming, physical conditioning, and motor skill development.
125-128. Sports Skills Each 2 cr.
105. Flag football, field hockey, personal defense, wrestling, golf.
106. Basketball, inside recreation, badminton, track and field.
107. Tennis, boating, soccer/speedball, volleyball, archery.
108. Winter recreation, bowling, softball, cycling.
109. Independent Study. 1 cr , Students may arrange for work not normally available through regular courses. Work must be prearranged and a statement filed in the office of
the coordinator of General Instruction in the School of Health, Physical Education, Recreation, and Athletics prior to the beginning of the work. Work approved can be substituted for PhyEd 101 credit. Older students may arrange individualized programs designed to meet their specific needs. Prereq: Consent of supervising faculty member and of the coordinator.
110. (Formerly 314) Adapted Physical Education. 3 cr. Learning characteristics, needs, and approaches of educating the exceptional learner in physical education; implications of the learning characteristics and assistance available for accommodating the exceptional learner in both adapted and regular physical education programs. Prereq: So st.
111. Gymnastics. 2 cr . Principles and techniques of teaching gymnastics. Prereq: So st and cons instr; limited to majors in physical education.

## 231. Physical Education for the Elementary Classroom

Teacher. 3 cr . A conceptual approach to gross motor development, perception, and motor patterns of children through the third grade. Lectures, collateral reading, research, and field trips. Required of all students in the primary education curriculum. Three hours per week plus field work. Prereq: So st.
232. Physical Education for the Elementary Classroom Teacher. 3 cr . A continuation of 231 with emphasis on grades four through six. Lectures, collateral reading, research, and field trips. Required of all students in the inter-mediate-upper elementary education curriculum. Three hours per week plus field work. Prereq: So st.
250. History and Philosophy of Physical Education. 2 cr . Development of philosophies of physical education as influenced by the political, economic, and social conditions of various countries. Prereq: So st.
252. Standard First Aid, Personal Safety, and Cardio-pulmonary Resuscitation. 2 cr . American Red Cross first aid and CPR training, with certificate issued on satisfactory completion of course.
253. Standard First Aid and CPR Instructors. 2 cr . Medical self-help and CPR training and preparation for teaching as prescribed by the American Red Cross; certificate of authorization granted on satisfactory completion of course. Prereq: Valid standard first aid and CPR certificates.
254. Advanced First Aid and Emergency Care. 2 cr. American Red Cross Advanced Training with certificate issued on satisfactory completion of course. Red Cross requires that the candidate for certification must be 18 years of age before the certificate will be granted.
271. Human Anatomy. 3 cr . The skeletal, muscular, circulatory, respiratory, and nervous systems of the human body. Prereq: So st.
300. Health Promotion Program Management. 3 cr. Wellness program management, issues, and skills applied to community and corporate programs in health and wellness enchancement. Prereq: 105, or Health Education 145.
310. Kinesiology. Study of body movement and principles which affect movement. Prereq: 271, or cons instr.
312. Physiology of Exercise. 3 cr. Effects of exercises of speed, strength, skill, and endurance; nature of muscular
behavior; fatigue; effects of exercise with respect to nutrition, age, sex, and occupation. Prereq: Biology 285.
The former 314 is now 214.
315. Activities for Handicapped Children. 2 cr. Techniques of teaching developmental activities to handicapped persons. Prereq: 214.
The former 316 is now 326.
317. Program Foundations of Adapted Physical Education. 3 cr . Educational, institutional, and community programs in adapted physical education; program development, implementation, and maintenance; management of legislative and business affairs. Prereq: 214.
318. Physical Education for Physical and Neurological Disorders. 3 cr . Preventive, corrective, and instructional phases of Physical Education as applied to individual developmental needs of the physical and neurologically disordered student at all school levels. Prereq: $2 \uparrow 4$.
319. Intramurals for the Handicapped. 2 cr . Foundations of sport/lifetime activities with competitive and individualization strategies necessary for handicapped and disabled populations. Prereq: Cons instr.
320. Leadership in Adapted Physical Education. 2 cr. Administrative, instructional, and evaluative practice in the implementation and operational components of providing physical education programs for children with exceptional education needs.
321. Methods of Teaching Children and Youth with Exceptional Educational Needs in Physical Education. 2 cr. Knowledge and application of teaching students with exceptional educational needs in Physical Education; observation and participation required. Prereq: Education 351.
326. (Formerly 316) Practicum in Adapted Physical Education. 5 cr. Practical experience working with persons who have varying handicapping conditions. Ten hrs per wk. Prereq: This course should be taken during the last semester of the minor study.
331. Physical Education for the Elementary School 3 cr. The physical education program at the elementary school, with emphasis on preschool through grade three; field work required. Enrollment limited to students majoring in Phy Ed.
332. Physical Education for the Elementary School 3 cr. Continuation of 331 with emphasis on grades four through eight; field work required. Prereq: 331.
353. Advanced First Aid Instructors. 1 cr. Preparation for teaching Advanced First Aid prescribed by American Red Cross; certificate of authorization granted on satisfactory completion of the course. Prereq: valid advanced first aid certificate; Red Cross requires that the candidate for certification must be 21 years of age before the certificate will be granted.
360. Practicum in Physical Education. 2 cr. Practical experience in working with individuals in schools or wellness sites; must be taken prior to student teaching or internship. Prereq: Cons instr.
365. Physical Education Curriculum. 2 or 3 cr. Curriculum planning and development for elementary and secondary physical education. Two hrs lec; field trips; third credit requires additional field trips.
380. Tests and Measurements in Physical Education. 3 cr. Analysis and construction of tests, interpretation of data and measurements in physical education.
391. Organization and Administration of Physical Education and Athletics. 2 cr . The school program in Physical Education and Athletics; problems of the administration of gymnasia, playgrounds, pools, locker rooms, interscholastic athletics and intramurals; management of the business affairs of each type of program.
395. Seminar in Physical Education, Health, and Recreation. 1 cr . Current developments in physical education, health, and recreation. Prereq: Sr st for Phy Ed majors.
397/597. Workshop in Physical Education. Variable credit. Designed to allow students to participate in special experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.
399. Special Work. Upper-level students majoring in Physical Education may arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Work must be pre-arranged and a statement filed in the office of the Coordinator of Professional Studies in the School of Health, Physical Education, Recreation, and Athletics prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the Coordinator.
400. Internship. 4 or 5 cr . Management principles, observation, and participation in an on-the-job training site. Prereq: 2.50 GPR in the major.
428. Techniques and Curriculum in Secondary Education: Physical Education. 3 cr. Methods, materials, and fundamental principles in curriculum development; may be taken no earlier than one semester prior to student teaching.
775. Motor Development in the Exceptional Child. 3 cr . A study of children with exceptional needs to determine types of gross, fine, and perceptual-motor activities best suited to individual development. Two hrs (minimum) practicum per wk.
790. Seminar in Current issues. 1 to 3 cr . Specific focus will be indicated by a subtitle each time the course is offered.
796. Independent Study. $1-3 \mathrm{cr}$. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the Head of HPERA.
797. Workshop in Physical Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.

## Courses in Recreation

141. Recreation for Special Populations. 3 cr . Recreation for mentally retarded, youthful offenders, mentally ill, alcohol and drug addicts, physically disabled, deprived, racial minorities, and the aged.
142. Community Recreation. 3 cr. Problems involved in setting up recreation programs on a yearly basis.
143. Camp Leadership. 2 cr . Theory and practice in camp craft, problems of cabin living, counselor training, waterfront laboratory, nature study, handicrafts and special projects; field trips and supplementary reading. Prereq: So st.
144. Group Games and Social Recreation. 2 cr. Quiet games, singing and folk games, and games of low organization suitable for home, school, and community recreation; supplemental to 142.
397/597. Workshop in Recreation. Variable credit. Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.
145. Special Work. Upper-level students minoring in Recreation may arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Work must be pre-arranged and a statement filed in the office of the Coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the Coordinator.
146. Seminar in Current Issues. 1 to 3.cr. Specific focus will be indicated by a subtitle each time the course is offered.
147. Independent Study. $1-3 \mathrm{cr}$. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conference with a staff supervisor, through arrangement with the Head of HPERA.
148. Workshop in Recreation. Variable credit. Designed to allow graduate students to particpate in special graduate, level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.

## Courses in Safety Education

177. Beginning Safety Education. 3 cr. Organization, administration, and teaching of safety in home, highway. water, athletic, recreational, and industrial areas.
178. Pre- and Elementary-School Safety. 2 cr. Methods, materials, and techniques as applied to pre- and ele-mentary-school teaching of safety, with program content suitable on a progressive basis for each grade level. Prereq: 177.
179. (Formerly 378) Driver Education. 3 cr. Organization, administration, and teaching of Driver Education and Training; requires the instruction of a new driver with the dualcontrol training car outside regular class hours. Prereq: So st.
180. Safety Instructor Certification. 1 cr. Preparation of qualified instructors to teach courses in boating, hunter, and snowmobile safety, as prescribed by the Department of Natural Resources; ethics and public controversies relative to the three areas. Each time the course is offered a subtitle indicating the area of certification will be added. May be repeated under different subtitles for a maximum of three credits. Credit may not be earned in both Safety Education 278 and Natural Resources 210. Prereq: So st.
181. Industrial and Institutional Safety. 2 cr. Overview of occupational accident prevention programs; techniques of measurement, cost of accidents, locating and identifying accident sources, problems of correcting difficult hazards, award programs, and psychology of accident prevention in various types of industries and institutions. Prereq: 177
The former 378 is now 277.
182. Advanced Driver and Safety Education. 3 cr. For personnel in safety and driver education; designed to develop concepts related to traffic safety, traffic law and enforcement, engineering, school transportation, research, teaching methods by using simulated and multiple car plan, and area program administration. Prereq: 177 and 378.
183. The Special Student in Driver Education. 2 cr. Methods, techniques, scheduling, psychological approach to teaching the special student in driver education; selection and purchase of equipment for the handicapped. Prereq: 177, 277, 379.

392/592. Behavioral Aspects of Accident Prevention. 3 cr. The relationship between physiological, psychological, and sociological factors which influence safe behavior and modification of unsafe behavior; problems, causes of acci-. dents, and the application of the principles of psychology in the development of safe traffic behavior. Prereq: 177, 277, and 379; Psych 315 highly recommended.
393/593. Alcohol and Other Drugs; Implications for Traffic Safety. 3 cr . The study of the physiological, psychological, and sociological problems of alcohol, drug use and abuse, as they relate to traffic safety; methods of instruction for the high school student. Prereq: 177, 277, and 379; Psych 315 highly recommended.
397/597. Workshop in Safety Education. Variable credit. Designed to allow students to participate in special experiences relating to their minor program. A subtitle will be added each time the course is offered. May be repeated for a maximum of three credits.
399. Special Work. Upper-level students minoring in Safety Education may arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Work must be pre-arranged and a statement filed in the office of the Coordinator of Professional Studies in the School of HPERA prior to the beginning of the work. Prereq: Consent of the supervising faculty member and of the Coordinator.
790. Seminar in Current Issues. 1 to 3 cr . Specific focus will be indicated by a subtitle each time the course is offered.
796. Independent Study. 1-3 cr. Planned study designed to enrich and supplement the student's preparation in the area of specialization; regularly scheduled conferences with a staff supervisor, through arrangement with the Head of HPERA.
797. Workshop in Safety Education. Variable credit. Designed to allow graduate students to participate in special graduate level experiences relating to their major program. A subtitle will be added each time the course is offered. May be repeated for a maximum of six credits.

## PHYSICS AND ASTRONOMY (College of Letters and Science)

Francis L. Schmitz, Chair.
Room B-111, Science Building.
Phone: (715) 346-2139.
Courses in Astronomy are listed under that title earlier in the catalog.
A. A major in Physics consists of 36 credits, including Physics 150, 250, 305, 307, 308, 310, 400, 410, 415, and one credit of 388 or 499. The remaining credits will be selected from Physics courses numbered 300 and above (except 333). Collateral courses include Chemistry 115 and 116 (or 105 and 106); Mathematics 120, 121, 222, 320.
B. A major in Physics for Teacher Certification consists of 36 credits, including Physics 150, 250, 305, 307, 310, 400 , and 410 . The remaining credits will be selected from Astronomy 311 or from Physics courses numbered 300 and above. Collateral requirements include Mathematics 120, 121, 222. The Wisconsin Department of Public Instruction requires an additional eight credits of science in another discipline for teacher certification.
C. A minor in Physics consists of 24 credits earned in Physics 150, 250, 305 or 307, 400, and in other Physics courses number 300 and above. At least one elective must include a laboratory. Collateral requirements include Mathematics 120, 121, 222. Students entering a teaching field may select Astronomy 311 as an elective. A minor in Physics is certifiable for teaching only when accompanied by a major in another science or a major in mathematics.
All students intending to major or minor in Physics must register for acceptance no later than the first semester of the junior year.
The following courses will be offered in the first semester only in 1983-84 and 1985-86: Physics 301, 305, 307.
The following courses will be offered in the first semester only in 1984-85 and in 1986-87: Physics 303, 390, 400.
The following courses will be offered in the second semester only in 1983-84 and in 1985-86: Physics 302, 308, 310, 315.

The following courses will be offered in the second semester only in 1984-85 and in 1986-87: Physics 205, 410, 415.

## NOTES:

(1) (a) A student may receive credit for only one of these: Physics 100, 101, 103, 150, 201.
(b) A student may receive credit for only one of these: Physics 100, 101, 104, 202, 250.
(2) A student will not receive credit for graduation for a course after having successfully completed a more advanced course in a similar area. The following restrictions hold:

## A Student who has Is not eligible for

 successfully completed(a) Physics 101
(a) 'Physics 100
(b) Physics 103
(b) Physics 100, 101, 201
(c) Physics 104
(c) Physics 100, 101, 201, 202
(d) Physics 150
(d) Physics 100, 101, 103, 201
(e) Physics 250
(e) Physics 100, 101, 104, 202

## Courses in Physics

100. Energy in Today's World. 3 cr. Basic energy concepts; energy sources and processes; projected depletion of present resources; the role of conservation, research, and development; alternatives and prospects for the future. Two hrs lec, two hrs lab per wk. This course may be used in partial fulfilment of part B of the Natural Science requirement for a degree.
101. General Physics. 5 cr. Fundamental principles of physics with emphasis on application; designed for students in the Elementary Education curriculum, general education, Communicative Disorders, Home Economics, and Physical Education.
102. General Physics. 5 cr. Mechanics, heat, and sound. Recommended for students in general education, Biology. and Pre-Medical and related fields. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: One yr of high school algebra and one yr of high school geometry, or equiv.
103. General Physics. 5 cr. Light, electricity and magnetism, and topics in modern physics. Recommended for students in general education, Biology, and Pre-Medical and related fields. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: 103, or equiv, or cons instr.
104. Electronics Instrumentation Laboratory. 1 cr . Electronics for basic instrumentation with applications in clinical and other fields. Three hrs lab per wk. Prereq: Con reg in 104 or 250 or cons instr.
105. General Physics I. 5 cr. Mechanics, heat, and sound. Three hrs lect, one hr disc, three hrs lab per wk. Prereq: Mathematics 110, or cons instr.
106. Applied Principles of Physics I. 4 cr . Selected topics in mechanics, heat, and sound, Two hrs lec, one hr disc, three hrs lab per wk. May be applied to the Natural Science requirement in the College of Natural Resources ONLY. Prereq: Mathematics 100 or equiv, or cons instr.
107. Applied Principles of Physics II. 3 cr. Selected topics in electricity, magnetism, optics, and modern physics. Two hrs lec, three hrs lab per wk. May be applied to the Natural Science requirement in the College of Natural Resources ONLY. Prereq: 201 or equiv, or cons instr.
108. Basic Electricity. 3 cr. Electrical concepts including voltage, current, resistance, capacitance, and inductance; simple a.c. and d.c. circuits, Kirchhoff's laws and other circuit laws; instrumentation in circuit analysis. Two hrs lec, two hrs lab per wk. Prereq: Mathematics 106 or equiv, or cons instr.
109. Statics. 3 cr . Principles of mechanics, force systems, equilibrium, structures, distributed forces, moments of inertia of area, friction. For students in the pre-engineering curriculum. Prereq: 150; Mathematics 121; or cons instr.
110. Dynamics 3 cr. Kinematics, force-mass-acceleration relationships, work and energy, impulse and momentum, moments of inertia of mass. For students in the pre-engineering curriculum. Prereq: 220; Math 222; or cons instr.
111. General Physics II. 5 cr. Electricity, magnetism, optics, and modern physics. Three hrs lec, one hr disc, three hrs lab per wk. Prereq: 150, Mathematics 111, or cons instr.
112. Electronics. 4 cr . Theory, application and practice of solid state devices; circuits and systems using these devices. Three hrs lec, three hrs lab per wk. Purchase of laboratory manual is required. Prereq: 205 or equiv, or cons instr.
113. Digital Electronics. 3 cr . Theory and operation of digital gates, flip-flop circuits, counters, shift registers, multiplexers, and analog to digital converter; applications of Boolean algebra to digital arrays, codes, coding and decoding. Two hrs lec, two hrs lab per wk. Prereq: 205 or equiv, or cons instr.
114. Advanced Optics. 3 cr . Principles of physical and geometrical optics. Prereq: 250; Math 222.
115. Advanced Mechanics. 3 cr . Vectors, rectilinear and curvilinear motions, including simple harmonic and damped vibrations; rotation of rigid bodies. Prereq: 250; Math 222.
116. Electricity and Magnetism I. 3 cr. Direct and alternating current circuits; transients; introduction to theory of electrostatics. Prereq: 250; Math 222.
117. Electricity and Magnetism II. 3 cr. Continuation of theory of electrostatics; magnetic properties of materials; Maxwell's equations. Prereq: 307.
118. Intermediate Laboratory. 2 cr. Experiments and laboratory practice in electricity, magnetism, and optics. One hr lec, three hrs lab per wk. Prereq: 307 or con reg or cons instr.
119. Thermodynamics. 3 cr. Principal concepts of thermodynamics and elementary kinetic theory. Prereq: 250; Math 222.

## 323 has been discontinued.

## 324 has been discontinued.

333. Physical Approach to Environmental Science. 3 cr. A study of the environment emphasizing physical principles; energy and the environment, impact of technology, mechanics of the environment; application to environmental problems. Prereq: Completion of the general degree requirement in natural science; Math 104 or equiv, or cons instr.
334. Selected Topics. 1 to 3 cr . Topic will be announced in the timetable. Prereq: Cons instr.
335. Research Participation. 1 to 4 cr . (Re-enrollment permitted to a maximum of six credits.) Investigations of current problems in physics, requiring three to twelve hrs per week in the laboratory. Prereq: Recommendation by a staff member and approval of the research supervisor.
336. Digital Systems and Microprocessors. 4 cr . Theory and operation of digital systems including measuring instruments, and microcomputer systems; ROMs, RAMs, ALUs, I-O devices, CPUs; applications and interfacing of microcomputers. Three hrs lec, three hrs lab per wk. Prereq: 301, 302, and Computer Science 230, or cons instr.
337. Atomic and Nuclear Physics. 3 cr. Special relativity. Bohr atom, atomic spectra, radioactivity, nuclear reactions and scattering. Prereq: 250.
338. Advanced Laboratory. 2 cr . Experiments and laboratory practice in atomic and nuclear physics. One hr lec, three hrs lab per wk. Prereq: 250.

411 has been discontinued.
412 has been discontinued.
415. Introduction to Quantum Mechanics. 3 cr. Quantum theory; wave packets, Schrodinger equation, hydrogen atom, harmonic oscillator, square wells, spin matrices, and operators. Prereq: 305 or 400.
496. Independent Study. 1 to 4 cr . Planned study designed to enrich and supplement the student's preparation in his area of specialization; regular scheduled conferences with the staff supervisor. Prereq: Cons chrmn.
499. Special Work. Upper-class students majoring or minoring in Physics may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
701. Physical Science. 3 or 4 cr . An examination in depth of certain developments in physical science from the standpoint of the principles involved and the impact of man's thought and way of life. Open to teachers who feel the need for an introductory course in physical science.
796. Independent Study. 1 to 4 cr . Planned study designed to enrich and supplement the student's preparation in his area of specialization. Prereq: The student must be mature enough to be able to do independent study; the course must supplement his current graduate work.
797. Workshop in Energy Concepts. 3 cr. A workshop to provide background materials in energy concepts and to assist teachers in developing curricula in this area. Two hrs lec, one hr lab per wk.

## POLISH

For course listings in Polish, see the section headed Foreign Languages and Comparative Literature earlier in the catalog.

## POLITICAL SCIENCE (College of Letters and Science)

Richard D. Christofferson, Sr., Chair. Room 482, Collins Classroom Building. Phone: (715) 346-2688.
A. A major in Political Science consists of at least 34 credits in Political Science courses including:

1. At least three credits from 101 (or 301), 102.
2. Three or more credits in each of five or more fields: (a) American Government: 308, 309, 310, 312, 313, 315, 316, 317, 320, 322, 411, 412. (b) Comparative Government: 206, 350, 361, 364, 370. (c) International Relations: 280, 380, 382, 384. (d) Political Theory: 270, 391, 392, 393, 394, 395, 396, 497. (e) Public Administration and Policy Analysis: 250, 304, 314, 344, 350, 351, 354, 356, 358, 397, 454. (f) Public Law: 211, 212, 312, 313, 320, 382, 411, 412. (g) State and Local Government: 242, 341, 342, 344, 454.
3. At least fifteen credits must be earned in courses numbered 300 and above.
To be admitted and retained as a major, and to be accepted for graduation, the student must have a grade point ratio of $2.00(\mathrm{C})$ in all courses taken within the major re-
gardless of declaration of academic bankruptcy. The chair may allow exceptions.
B. A minor in Political Science consists of at least 22 credits, including at least three credits from 101 (or 301), 102; ten or more credits in courses numbered 300 and above; and at least three credits in each of four or more of the fields indicated in the description of the major, above.

## PUBLIC ADMINISTRATION AND POLICY ANALYSIS (College of Letters and Science)

Dennis D. Riley, Coordinator. Room 470, Collins Classroom Building. Phone: (715) 346-2013.

Public Administration and Policy Analysis is an interdisciplinary program, offering both a major and a minor, administered by the Political Science Department. It is designed for students interested in public service or graduate education in this area.
A. A major in Public Administration and Policy Analysis consists of at least 40 credits distributed as follows:

1. Organizational Environment ( 12 credits): (a) Introduction - 6 cr: Political Science 102, 250. (b) Personnel/Organizational Relationships - 3 cr: Business 370; Political Science 351, 354; Psychology 320; Sociology 310, 315. (c) Budget/Fiscal-3 cr: Economics 311; Political Science 356, 358.
2. Political Environment (nine credits in three groups): (a) American: Political Science 101. (b) State/Local: Political Science 242. (c) Executive/Legislative: Political Science 310, 320. (d) Judicial:, Political Science 212, 313. (e) Urban/Metro/Inter-governmental: Political Science 341, 342, 344.
3. Tools of Analysis (at least seven credits, one course in each of the following groups): (a) Policy Analysis: Political Science 397. (b) Statistics: Economics 330; Mathematics 355; Psychology 300; Sociology 351. (c) Computers: Computer Science 100, 101/102, 110, 112, 113.
4. Concentration Area (with approval of the coordinator, select one - 12 cr): (a) Public Policy Analysis: Business 317; Economics 311, 315, 328, 430, 433; Political Science 304, 314, 455, 497. (b) Public Planning: Geography 373; Natural Resources 480; Political Science 304, 341, 342, 344, 455; Sociology 260, 300, 356, 357, 358. (c) Personnel Administration: Economics 345, 346; Political Science 315, 455; Psychology: 240, 335, 345, 350, 401. Sociology 270, 315. (d) Resources and the Environment: Economics 204; Geography 340, 368; History 366; Natural Resources 370, 371, 372, 473, 480; Philosophy 380; Political Science 304, 455. (e) Public Finance Administration: Business 210, 211, 318, 320; Economics 311, 312; Political Science 356, 358, 455. (f) Special: With approval of the coordinator, select courses from four areas, (a) through (e), above.
To be admitted and retained as a major, and to be accepted for graduation, the student must have a grade point ratio of 2.00 (C) or higher in all courses taken within the
major regardless of declaration of academic bankruptcy. The chair may allow exceptions.
B. A minor in Public Administration and Policy Analysis consists of at least 28 credits in parts 1,2, and 3 of the major, as described above.

## Information and Recommendations:

1. We recommend that the 200 -level survey course be taken before 300-/400-level courses in the various fields.
2. Generally, 400 -level (senior) courses are open to and within the capabilities of students who are juniors.
3. Sophomores seeking admission to $300-/ 400$-level courses should have consent of instructor.
4. Prerequisites are listed in the catalog course descriptions.
5. Political Science 301 is for non-majors and non-minors or for majors and minors entering our programs after attaining junior or senior standing. Credit may NOT be earned in both 101 and 301.
6. When adequate scores on the College Level Entrance Placment (CLEP) exam have been earned, the department will grant credit for and/or waivers of Political Science 101 and 102.
7. Emphases: Political Science majors may choose an emphasis to prepare for graduate school, law school, public administration, or teaching certification. Information is available in the department office.
8. Internships: Selected students may earn credits as interns with local, regional, state, or national agencies in Political Science 455. Those selected for the "Washington Semester" at American University or the Washington Center for Learning Alternatives must pay tuition and fees required by these programs.

## Courses in Political Science

100. Contemporary Political Issues. 1 cr. A critical examination of the social and political implications of a major, contemporary issue area. Two hours per week. A subtitle will be added each time the course is offered. The course may be taken twice under different subtities. Pass-Fail only.
101. Introduction to American Politics. 3 cr. Survey of American politics and government.
102. American Policy Making. 3 cr. Introduction to analysis of governmental policy making; emphasis on theories of the policy process and substantive policy issues.
103. Introduction to Comparative Politics. 3 cr . Theories of comparative government and the political systems of selected Western, non-Western and Communist countries. Prereq: So st.
104. Practical Law. 3 cr. Principles and applications of civil and criminal law as they affect citizens; emphases on consumer, juvenile, family, mental commitment, rules of evidence, probate, torts, and student rights. Prereq: So st.
105. Introduction to Law and Legal Systems. 3 cr . The nature of law and legal processes as instruments of social control. Prereq: So st.
106. Survey of State and Local Government. 3 cr . An introduction to political structure, functions, and behavior at the subnational level; examination of empirical theories which
seek to explain political behavior in the states and communities; emphasis on Wisconsin. Prereq: So st.
107. Introduction to Public Administration. 3 cr . Theory and practice of public administration in the United States. Prereq: So st.
108. Introduction to Political Theory. 3 cr. Critical survey of literature, problems and solutions in political theory; nature of political man, purposes and conceptions of government, and viability of government as a social control device. Prereq: So st.
109. Introduction to International Relations. 3 cr . A survey of the general principles of international relations and organizations. Prereq: So st.
110. Introduction to American Politics. 3 cr. Survey of American politics and government. Credit may not be earned in both 101 and 301.
304/504. Politics and the Environment. 3 cr. Environmental quality policy-making processes and policy outputs, including statutes, agency rules, and court decisions dealing with air, water, and land; analysis of costs, results, trends.
111. Public Opinion. 3 cr. Formation, measurement, and content of American Political opinions; relationship to public policies.
112. Tribal Governments in the United States. 3 cr. Contemporary tribal governments; relationships with federal, state, county, and local governments; inter-tribal organization and interest groups.
113. The American Presidency. 3 cr. An analysis of the development of the American chief executive, with primary emphasis on the twentieth century presidents; the nature of presidential power, its effectiveness and its limitations.
114. Law and Native Americans. 3 cr. Legal relationships of Native Americans to tribal, county, state, and federal governments; examination of personal rights as defined by treaties, case law, federal and state statutes dealing with criminal procedures, civil rights, allotments, heirship, and torts.
115. The Judicial Process. 3 cr . The nature and role of law and of the Judiciary in American democracy; basic American judicial concepts; judicial organization, selection, tenure, and procedure. Prereq: 212 or cons instr.
314/514. Selected Issues in Public Policy. 3 cr. An intensive analysis of selected national political issues in public policy; their origin, development, proposed solution, and political impact.
116. Minority Group Politics. 3 cr . Political behavior and impact of ethnic, religious, racial and ideological minority groups in the United States.
316/516. Political Parties and Elections. 3 cr. A description and critical examination of political parties and voting behavior in the United States.
117. Political Woman. 3 cr . An analysis of the development and changing status of women in American politics; comparison of the political behavior of women with other segments of society; the future of the political woman.
320/520. The Legislative Process. 3 cr . An analysis of the forces and procedures that determine the formation of law and public policy in the United States.
118. Interest Groups in Politics. 3 cr . The nature and influence of pressure groups in American politics; a critical analysis of their effect upon the democratic way of life.
119. Urban Politics. 3 cr . Analysis of urban governments in the United States; attention to governmental structures, powers, policies, and political patterns in both large and small cities; emphasis on Wisconsin. Prereq: 242 or con instr.
342/542. Government and Politics of Metropolitan Areas. 3 cr. Investigation of the interrelationships among governments in metropolitan areas with emphasis on regional cooperation, suburban politics, and regional planning. Prereq: 242 or cons instr.
120. Intergovernmental Relations. 3 cr. Problems resulting from overlapping governmental units; analysis of past and current devices of intergovernmental cooperation and sources and areas of conflict; political-governmental implications of intergovernmental relations; consideration of new proposals for meeting problems of intergovernmental relations. Prereq: 242 or cons instr.
121. Comparative Public Administration. 3 cr . Administrative systems of selected North American, European, African, Asian, and Latin American countries on a comparative basis. Emphasis on the administrative recruitment, development, and policymaking; developmental planning; and institution building.
351/551. Organization Theory and Practice. 3 cr. Analysis of organization theories and the role of organizations in contemporary society; processes and environment of administration with emphasis on examining the administrative processes and decision-making in governmental organizations.
354/554. Public Personnel Administration. 3 cr. Problems and practices of selection, training, and organization of personnel administration; emphasis on Wisconsin.
356/556. Fiscal Aspects of Government. 3 cr. The ways in which the U.S. national, state, and local governments determine their fiscal policies; emphasis on the governmental institutions and agencies involved, legislation and regulations, and the pattern of relationships affecting them. Case studies (e.g. Revenue Sharing) focusing on the consequences considered, and related to the budgetary process.
358/558. The Budgetary Process. 3 cr . Determination and execution of public agency budgets; emphasis on preparation, authorization, and political considerations of the government agency budget; emphasis on Wisconsin.
361/561. Major Governments of Western Europe. 3 cr . Comparative study of the governments and politics of the United Kingdom, France, and the Federal Republic of Germany.
364/564. Government and Politics of the Soviet Union. 3 cr. Russian national and Marxist influences on the development of the Soviet state and Soviet concept of democracy, the role of the Communist Party and the formal, institutional machinery of government; a critical analysis of the Leninist, Stalinist, and post-Stalinist periods.
122. Politics in Asia. 3 cr. Political institutions, leadership, socio-economic problems, and international relations of selected Asian countries.
123. International Politics: The Foreign Policy of the United States. 3 cr . International and internal forces underlying the foreign policy of the United States; relating U.S. aims and policies to other important states and regions of the world.
124. International Organizations and Law. 3 cr. A survey of the proposals and experiments in international organizations; the League of Nations and the United Nations.
384/584. International Politics: The Foreign Policy of the Soviet Union. 3 cr . An analysis of the Russian national and Marxist bases of the foreign policy of the Soviet Union.
125. American Political Thought to 1865. 3 cr.
126. American Political Thought since 1865. 3 cr .

393/593. Early Western Political Theory. 3 cr. A critical analysis of selected political thinkers of the Western World from the pre-Socratics through the Medieval Period, such as Protagoras, Socrates, Plato, Aristotle, Cicero, St. Augustine, St. Thomas, and Machiavelli.
394/594. Modern Western Political Theory. 3 cr. A critical analysis of selected political thinkers of the Western World from the Reformation to the Contemporary period, such as Luther, Calvin, Bodin, Montesquieu, Hobbes, Locke, Rousseau, Burke, Hume, Bentham, Mill, Hegal, Marx, and Lenin.
395/595. Topics in Contemporary Political Theory. 3 cr. Advanced level analysis of current problems and topics in political theory.
396/596. Radical and Utopian Politics. 3 cr. Selected revolutionary movements, leading actors in revolutionary dramas, and radical and Utopian blueprints of future societies.
397. Methods of Policy Analysis. 3 cr . Systematic methods, techniques, and tools for public policy evaluation; policy analysis as service to decision-makers; analysts in the policy and political processes. Prereq: 102 or 314 or cons instr.
411/611. American Constitutional Law I. 3 cr. Topical treatment of American Constitutional development as exemplified by Supreme Court decisions; detailed examination of selected judicial decisions interpreting the Constitution with consideration of the political and governmental implications of such decisions; constitutionalism and judicial review; the commerce clause; the powers of the national executive, legislative, and judicial branches.
412/612. American Constitutional Law II. 3 cr. Same as Political Science 411, covering civil liberties and civil rights; due process of law; equal protection of the laws.
454. Problems of Local Government Administration. 3 cr. Theory and practice of local government administration; contrasts and comparisons with state and national public administration; emphasis on Wisconsin. Prereq: 242 or cons instr.
455. Internship in Government. 1 to 6 cr . The student will spend the bulk of his time working with a local, regional, state, or federal agency under the supervision of the instructor; a research paper on a topic previously agreed on with the instructor will be completed. Number of credits will be determined by the instructor.
490. Selected Problems in Political Science. 3 cr. Intensive examination of problems in political thought or political activities. Topics will be announced each semester.

497/697. Scope and Methods of Political Science. 3 cr. Examination of political science as a discipline through consideration of the materials, approaches, methods, and modes of presentation used in contemporary research.
499. Special Work. 1 to 3 cr . Upper-class students majoring or minoring in Political Science may, by agreement with the chair of the Political Science Department, arrange for special out-of-class work for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
796. Special Work. 1 to 3 cr . Graduate students may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.

## PSYCHOLOGY <br> (College of Letters and Science)

John D. Holmes, Chair. Room D-243, Science Building. Phone: (715) 346-2883.
A. A major in Psychology consists of 34 credits:

1. Psychology 110, 300, 301, 375, 389.
2. At least one course from each of the following groupings:
a. Psychology 250, 260, 320.
b. Psychology 310, 325, 330, 335.
c. Psychology $400,452$.
3. Nine additional elective credits in Psychology which may include courses from a, b, and c, above, not used to satisfy the particular grouping requirement.
B. A major in Psychology with an emphasis in Human Services consists of at least 43 credits, including:
4. The requirements for the major as defined in $\mathbf{A}$.
5. Psychology 350, 351, 401, 402, 480, and 482.
6. The courses listed in paragraph 2 will fulfill the required nine elective credits in the psychology major (A. 3 above).
C. A minor in Psychology consists of $\mathbf{1 8}$ credits in Psychology, including Psychology 110.
D. A minor in Psychology for teacher certification consists of 25 credits:
7. Psychology $110,300,301,375,389,452$.
8. At least one course from each of the following groupings:
a. Psychology 250, 260, 320.
b. Psychology 310, 325, 330, 335.

## Courses in Psychology

100. Personal Effectiveness, Study Skills, and Adjustment
to College. 3 cr . Assessment and development of learning skills, motivation, and adjustment to college. Two hrs lec, one hr lab per week.
101. Study Skills. 1 cr. Development of skills in textbook comprehension, lecture notetaking, memory, listening, preparation for examinations, time management, and systematic methods of study. One hr per wk in class; additional half-hour appointments to be arranged. Does not
count toward the major or minor in Psychology, nor toward the general social science requirement for a degree.
102. General Psychology. 3 cr . The study of experience and behavior.
103. Psychology of Women. 3 cr. Research and theory concerned with women's personality, roles, and capacity; emphasis on socialization and sex role development. Prereq: 110.
104. Psychology of Adjustment. 3 cr. Nature of adjustment and the conditions related to mental health in normal persons. Prereq: 110.
105. Psychology of Sexual Behavior. 3 cr. Psychological aspects of sexual behaviors, responses, and attitudes, including psychosexual development, varieties of sexual experience, basic physiology, sexual problems and therapy. and psychological factors in contraception, conception, pregnancy, and childbirth. Prereq: 110.
106. Introduction to Developmental Psychology. 3 cr. Survey of growth and development; physical, perceptual cognitive, linguistic, emotional, and social development; emphasis on human development from conception to adulthood. Prereq: 110.
107. Consciousness. 3 cr. Psychological-neurophysiological research and theories about various states of consciousness, such as sleep, dreams, mental imagery, and mystical states; altering consciousness through hypnosis, psychedelic drugs, biofeedback, and meditation. Prereq: 110.
108. Parapsychology. 3 cr. Extrasensory perception (telepathy, clairvoyance, precognition, retrocognition); psychokinesis ("mind over matter"); psychic healing; out-of-body experiences; death and near-death experiences; trance mediums; reincarnation. Prereq: So st.
109. Psychoactive Drugs and Behavior. 3 cr. Introduction to psychopharmacology; examination of effects of commonly used drugs on the central nervous system, behavior, and the motivation for administration, consumption, and abuse of legal and illegal drugs. Prereq: 110 or cons instr.
300/500. Statistics for Psychologists. 4 cr. Calculation and interpretation of measures of central tendency, variability, correlation, and regression in psychological research; hypothesis testing and estimation from large and small samples; analysis of variance; forms of experimental design. Three hrs lec, two hrs lab per wk. Prereq: 110.
110. Theories of Personality. 3 cr . Contemporary approaches to the study of behavior; clinical and experimental contributions to the understanding of the personality and its structure. Prereq: 110.
310/510. Cognitive Processes. 3 cr . The role of hypothesis formation in memory, verbal learning, concept formation and attainment, problem solving, and language with special emphasis on human learning. Prereq: 110; 370/570 or $375 / 575$ is required for graduate students and is recommended for all students.
111. The Psychology of Adolescence. 3 cr . Behavior of adolescents; emphasis on the physiological and cultural determinants of personality and consideration of the problem of adjustment encountered by youth in society. Prereq: 110.
112. Social-Psychology. 3 cr . Individual behavior as a function of the social environment; the effects of learning, cognition, motivation, and perception in the development of interpersonal behavior. Prereq: 110.
113. Environmental Psychology. 3 cr. Empirical and theoretical relationships between human behavior and experience and the physical environment; environment perception; environmental influences on individual development and social interaction; interaction with natural and built, rural and urban environments. Prereq: 110.
114. Neuropsychology. 3 cr . Neurological basis of behavior; emphasis on the principles of central nervous system activity that underlie perception, motivation, learning, and cognition. Prereq: 110.
115. Perception. 3 cr . Fundamental concepts of perception, with special emphasis on vision; experimental findings, theoretical interpretations, and demonstration of the ways in which man perceives his environment. Prereq: 110.
116. Motivation and Emotion. 3 cr . The nature and development of emotion, attitude, motive, and the role of these processes in thinking and behavior. Prereq: 110.
117. Comparative Psychology. 3 cr. Similarities and differences in animal behavior among phyla, especially as they relate to human behavior; instincts, learning, sensation, and functional organization of the nervous system compared phylogenetically. Prereq: 110.
118. Industrial Psychology. 3 cr. Job' analysis; selecting, training, and evaluating workers; employee motivation and morale; leadership and organizations; fatigue, safety, and the working environment; consumer behavior; engineering psychology. Prereq: 110.
350/550. Theory of Psychological Testing. 3 cr . Characteristics of psychological tests; study of the most widely used intelligence, aptitude, interest, and personality tests. Prereq: Two courses in Psych or cons instr.
119. Abnormal Psychology. 3 cr. Behavior disorders, including the psychoses, neuroses, character disorders, and mental deficiencies. Prereq: 250, or cons instr.
360/560. Behavior Problems in Children: Prevention and Modification. 4 cr . Nature and origin of behavior problems in children, and an examination of strategies for their prevention and modification; practicum experiences with handicapped children. Prereq: 260 or cons instr.
361/561. Mental Retardation and Developmental Disabilities. 3 cr . Physiological, cognitive, emotional, and social aspects of mental retardation and developmental disabilities. Prereq: 110 or cons instr.
120. Human Memory. 3 cr . Theory and research dealing with the encoding, storage, and retrieval of information; sensory memory; short-term and long-term memory; forgetting; nature and structure of knowledge; physiology of memory. Prereq: 110 or cons instr.
375/575. Learning. 3 cr . Simple and complex learning, including conditioning, sensory-motor learning, language learning, problem-solving, with emphasis on contemporary theories. Prereq: 110.
121. Experimental Psychology. 3 cr . An introduction to the principles of experimental design with practice in conducting research, analyzing results, and writing research reports. Two hrs lec, two hrs lab per wk. Prereq: 300.
122. Special Work. Upper-class students majoring or minoring in Psychology may, by agreement with the chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.
123. Advanced Experimental Psychology. 3 cr . Theory and techniques of advanced experimental design and methods of statistical analysis; consolidation through practice and procedures acquired in 389 including independent research. Two hrs lec, two hrs lab per wk. Prereq: 389.
401/601. Introduction to Counseling and Psychotherapy. 3 cr. Major approaches to counseling and psychotherapy; theory, research, evaluation, and demonstration. Prereq: 250, or cons instr.
402/602. Practicum in Counseling and Psychotherapy. 3 cr . Supervised field work in counseling and psychotherapy. Prereq: 401 and cons instr.
124. History, Systems, and Contemporary Issues. 3 cr.' History of major systems and areas of psychology; current trends of theory and research; a senior paper is required. Prereq: Sr st; 375 or cons instr.
460/660. Developmental Psychology Seminar. 3 cr. Research experiences in physiological, perceptual, cognitive, emotional, and social development; emphasis on human behavior from infancy to adulthood. Prereq: 260, or cons instr.
465/665. Psychology of Late Adulthood. 3 cr. Changes in psychological processes and behavior as a function of aging; methods of studying the aging process; research paper or experience in working with the elderly required. Prereq: 110 and cons instr.
480/680. Behavior Modification. 3 cr . Clinical application of behavior theory and research in the treatment of phobias, anxiety, depressions, delinquencies, psychosis, language and other behavior disorders, including such topics as desensitization therapies, assertive training, token economics, biofeedback, and self control. Prereq: 110.
482/682. Practicum in Behavior Therapy. 3 cr. Clinical application of behavior modification principles in the treatment of behavior disorders. Prereq: 480 and cons instr.
125. Seminar: Fields of Psychology. 2 or 3 cr . Discussion of theory and research in psychology as they apply to general and special areas of study. A subtitle indicating the subjects will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 110 and cons instr.
491/691. Workshop. 1 to 5 cr . A subtitle will be added to describe the area considered each time the course is offered. May be repeated for credit under different subtitles.
126. Special Work. Graduate students may, by prior agreement with the instructor, the chair and the chair of the student's major department, arrange for special study for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.

## PUBLIC ADMINISTRATION AND POLICY ANALYSIS

The major and minor in Public Administration and Policy Analysis are administered by the Political Science depart-
ment. See the section Political Science earlier in this catalog.

## RECREATION

## See Physical Education.

## RELIGIOUS STUDIES <br> (College of Letters and Science)

## Thomas W. Overholt, Coordinator

Room 420, Collins Classroom Building.
Phone: (715) 346-2038.
Courses in Religious Studies are administered by the Philosophy Department. They may be used to fulfill the Humanities requirement for a degree.
A. A major in Philosophy with a concentration in Rellgious Studies consists of a minimum of thirty-three credits including courses to be taken in the following areas:

1. The Philosophy core: The specific requirements for a major in Philosophy must be met; except that in 1 ., only 217 is required; Religious Studies 210 may be substituted in 3.; and Philosophy 320 may be substituted in 4. (See the description of the major in Philosophy earlier in this catalog.)
2. The Religious Studies concentration:
a. Historical background: Religious Studies 103 or 104; and 100 or Philosophy 105. ( 6 cr.)
b. Phenomenology of religion: One course selected from Religious Studies 102, 316, 330. (3 cr.)
c. Western religious thought: Religious Studies 300 or 301. (3 cr.)
d. The remaining nine credits are to be selected, with the advice of the departmental adviser, from Religious Studies and collateral courses*.
B. A minor in Religious Studies consists of 18 credits ( $\mathbf{2 2}$ credits for teacher certification) as specified in 1. or 2. , below:
3. A minimum of 18 credits including:
a. At least one course selected from each of the following three groups:
a.1. Non-Western religious traditions (RS 100, 316; Philosophy 105).
a.2. Western Religious traditions (RS 101, 103, 104, 300, 320).
a.3. Religion in human life and culture (RS 102, $210,215,301,315,321,330$ ).
b. At least nine additional credits from Religious Studies courses and collateral courses' to be selected with the advice of the departmental adviser.
OR
4. A minimum of 22 credits (for teacher certification) including:
a. Five courses distributed as follows among three groups:
a. 1. Non-Western religious traditions (Religious Studies 100; and one of these: Philosophy 105, 335, 337, 338, Religious Studies 316).
a.2. Western religious traditions (Religious Studies 101).
a.3. Religion in human life and culture (Religious Studies 102; and 210 or 215).
b. At least seven additional credits at the 300 -level from Religious Studies courses and collateral courses* to be selected with the advice of the departmental adviser. One of these credits must be an independent study (RS 399) focusing on conceptual, pedagogical, and legal aspects of the teaching of Religious Studies in the public schools.
*Collateral courses: Anthropology 320; Comparative Literature 240; History 316; Philosophy 105, 207, 320, 335, 337, 338; Sociology 431.

## Courses in Religious Studies

100. Religions of the World: Eastern. 3 cr . A survey of the ideas and practices of major Eastern religions: Hinduism, Buddhism, Confucianism, Taoism.
101. Religions of the World: Western. 3 cr. A survey of the ideas and practices of major Western religions: Judaism, Christianity, Islam.
102. Varieties of Religious Experience. 3 cr . An examination of various forms of religious experience and expression, such as the sense of the "holy," ritual activities, and myth, to discover the meaning of these phenomena in and for human life.
103. God and Man in the Old Testament. 3 cr . An introduction to the origin, content, and enduring significance of the major religious themes and moral values developed in Biblical Israel.
104. The New Testament and Early Christianity. 3 cr. An introduction to the origin, content, and enduring significance of the major religious themes and moral values developed in Early Christianity.
105. Religion and Moral Problems. 3 cr. Principles of religious ethics and their application to specific moral problems, such as birth control, abortion, war, civil disobedience, and violence. Prereq: So st.
106. Religion in America. 3 cr . A consideration of the interdependence and mutual influence of religion and culture in American history. Prereq: So st.
107. The Development of Christian Thought. 3 cr. Development of major themes in Christian thought, such as the doctrine of Christ, the authority of the church, the use of the Bible, and the relationship between church and state, through the nineteenth century.
108. Contemporary Religious Thought. 3 cr. Major themes of the Western religious tradition's as addressed in the works of significant twentieth century thinkers.
109. Religion and Literature. 3 cr . A study of basic patterns of religious experience and belief, such as mysticism, evil and guilt, death and rebirth, cosmos and chaos; and their role in works of contemporary writers, such as Conrad, Camus, Golding, and Hesse.
110. Native American Religions. 3 cr . An examination of the religious ideas and practices of selected Native American tribes.
111. Selected Topics in Biblical Studies. 3 cr. Major issues in biblical interpretation, such as the covenants between God and man, the nature of prophecy, the quest of the historical Jesus. The specific content of the course will be indicated by a subtitle. Prereq: 103 or 104.
112. Studies in Religion. 3 cr . Selected topics of significance in the study of religion in human life and culture. Specific content will be indicated by a subtitle; may be taken more than once under different subtitles.
113. Sexual Images and Myths in Religion. 3 cr . A study of religious symbolism, with emphasis on the use of male and female models and the portrayal of sexual roles in religious myths.
114. Independent Study. 1 to 3 cr . Individual work in religious studies on a special problem, theme, thinker, or period of particular interest to the student may be arranged with an instructor in the program, in consultation with the chair of the Philosophy department. Number of credits will depend on the scope of the project.

## RESOURCE MANAGEMENT

See Natural Resources for the descriptions of the major and minor in Resource Management.

ROTC
(RESERVE OFFICERS TRAINING CORPS)
See Military Science.
RUSSIAN
Courses in Russian are listed under FOREIGN LANGUAGES.

## RUSSIAN AND EAST CENTRAL EUROPEAN STUDIES (College of Letters and Science)

Robert F. Price, Coordinator. Room 410, Collins Classroom Building.
Phone: (715) 346-3050.
A. A major in Russian and East Central European Studies consists of at least 34 credits:

1. At least 24 credits shall be selected from the following content courses in at least three fields, with no more than nine credits in any one field: Geography 330 (The Soviet Union); History 337 and 338 (Russian History and Civilization), 339 and 340 (Eastern and Central Europe); Philosophy 331 (History of Pre-Revolutionary Russian Philosophy), 332 (Development of Soviet Ideology); Political Science 364 (Government and Politics of the Soviet Union), 384 (Foreign Policy of the Soviet Union); Russian 331* (Culture and Civilization), 360* (Literature of the Nineteenth Century), 370* (Literature of the Twentieth Century), 493* (Specialized Studies in Literature); Russian and East Central European Studies 399 (Special Work, 1-3 cr).
*These courses can be taken only once for credit towards a RECES major or minor.
2. The remainder of the 34 credits shall be in related courses chosen in consultation with the RECES coordinator, such as Economics 367/567 (Comparative Economic Systems); Fine Arts 280 (Experimental) (Russian Art); History 341 (Problems in Russian Culture), 342 (Polish Emigration to the United States).
3. Collateral requirements: Two semesters of skills courses in Russian, or any other language of the area, beyond the first year level.
B. A minor in Russian and East Central European Studies consists of at least 24 credits:
4. At least 16 credits selected from among the content courses with no more than six credits in any one field. (See A.1., above.)
5. The remaining credits shall be in related courses chosen in consultation with the RECES coordinator.
6. Collateral requirements: Two semesters of Russian, or any other language of the area.
A student planning to earn a major in Russian and East Central European Studies as well as a major in a traditional discipline should expect to have to earn from 10 to 15 credits beyond the minimum of 120 (plus required Physical Education) required for a degree.

## Courses in Russian and East Central European Studies

297. Soviet Seminar. 3 cr. The Soviet Union and East Central Europe. Open to students who are going to participate in the trip to Eastern Europe within the framework of the Soviet seminar. Prereq: So st.
298. Soviet Seminar. 3 cr. Same as 297, except, offered at the junior-senior level.
299. Special Work. Upper-class students majoring in Russian and East Central European Studies may, by agreement with the Russian and East Central European Studies adviser, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project.

## SAFETY EDUCATION

See Physical Education.

## SMALL CITY ANALYSIS (College of Letters and Science

Edward J. Miller and Robert P. Wolensky, Coordinators. Room 451, Collins Classroom Building.
Phone (715) 346-3130, 346-2708.
A minor in Small City Analysis consists of a minimum of 25 credits:

1. A Core of $\mathbf{1 2}$ credits selected from the following courses with no more than 6 from a single department.
a. Area Courses - 6 credits chosen from Geography 373, Natural Resources 480, Political Science 341, Sociology 356.
b. Affiliate Courses - 6 credits chosen from Forestry 333; Geography 367; Natural Resources 474, 495; Political Science 242, 344; Sociology 300, 357, 358, 363.
2. Analytic Skills of 9 credits selected from Computer Science 101/102, 110, 112, 113.
a. Computer Science - 3 credits selected from Computer Science 101/102, 110, 112, 113.
b. Research Methods - 3 credits selected from Economics 330, 430; Geography 276; Political Science 497; Sociology 250, 351; Psychology 300; Mathematics 355.
c. Policy Analysis/Management - 3 credits selected from Business 380; Political Science 250, 397, 495.
3. Internship Independent Research - 3 credits selected from Political Science 455, 499; Sociology 499; Geography 399; Natural Resources 499. Internship or independent research must be focused on a topic related to small cities.
4. Simulation/Seminar - 1 credit of a Small City Simulation or Seminar as approved by one of the coordinators.

## SOCIAL SCIENCE (College of Letters and Science)

Guy J. Gibson, Coordinator.
Room 410, College of Professional Studies Building.
Phone: (715) 346-2186.
A Social Science major may be earned in either of two ways, as indicated below. Those students working toward teacher certification should select plan B, in order to meet Wisconsin certification requirements for high school Social Studies teachers.
A. A Social Science major (for those not working toward teacher certification) consists of the following:

1. Meeting requirements for the minor in one of the following fields:
a. Anthropology.
b. Economics.
c. History.
d. Political Science.
e. Sociology.
f. Sociology and Anthropology.
2. Six or more credits in each of three Social Science fields as listed below, but not to include the field selected under point 1., above:
a. Anthropology.
b. Economics.
c. Geography (human), consisting of Geography 110, plus three credits in human Geography courses numbered 300 or above.
d. History (in addition to the six credits of History necessary to meet the general requirements of Letters and Science).
e. Political Science.
f. Psychology.
g. Sociology.
3. Sufficient additional credits to total 45 or more, with at least 15 of the total in courses numbered 300 or above.
B. A Broad Field Social Science major for teacher certification (for teaching in grades 7-12) consists of:
4. A minimum of 54 credits in Social Sciences in the following subjects, to be selected as indicated below: Anthropology, Economics, Geography (human), History, Political Science, Psychology and Sociology.
a. Alternative A:
(1) A major (a minimum of 34 credits) in one of the subject areas listed in paragraph B.1.. above; and
(2) A minimum of 20 credits distributed over at least two of the other Social Science subjects.
(3) At least 12 credits must be in History and/or Political Science.
b. Alternative B:
(1) A minor (a minimum of 22 credits) in one of the Social Science subjects listed in paragraph B.1., above; and
(2) A minimum of 32 credits distributed over at least three of the other Social Science subjects.
(3) At least 12 credits must be in History and/or Political Science.
This "Broad Field" Social Science major will permit teaching in only the major field, the minor field, and the fusion courses. (The fusion courses are those drawn from several of the Social Science disciplines and, therefore, require a composite preparation in Social Science. Fusion courses include civics, social problems, American problems, area studies, vital issues, etc.)

For certification in the "Broad Field" Social Sciences, statutory requirements include instruction in Conservation and Cooperatives. These requirements (normally Economics 200 or 323, and Natural Resources 370) are described in the earlier section of the catalog under the heading "Ma-jor-Minor Options in Secondary Education" (College of Professional Studies).
C. A minor in Social Science consists of 24 credits, including at least one full year of course work in Anthropology, Economics, human Geography, Political Science, and Sociology, as indicated below:

1. Economics: Required-Economics 200; Elective-Economics 201 or any three-credit course numbered 300 or above approved by the Social Science adviser.
2. Geography: Required-Geography 110; Elective-any three-credit course in human Geography numbered 300 or above, approved by the Social Science adviser.
3. Political Science: Required-Political Science 101; Elective-any three-credit course numbered 300 or above approved by the Social Science adviser.
4. Sociology and Anthropology: Required-Sociology 101; Elective-any three-credit course numbered 300 or above approved by the Social Science adviser.
This minor will not be approved for teacher certification; it does not meet Wisconsin certification requirements for Social Studies teachers.
D. Certification for the teaching of Civics (grades 7-12) will be granted on completion of one of the following three alternatives:
5. The requirements for the Broad Field Social Science major (paragraph B., above).
6. The Political Science minor (a minimum of 22 credits).

## Sociology and Anthropology

3. A minimum of 42 credits in Social Science in the subjects listed below:
a. History: Same as the stated minor in History (24 credits) with History 211 and 212 to contribute to the fulfillment of the requirement.
b. Economics: six credits.
c. Political Science: six credits.
d. Sociology and Anthropology: six credits.
E. Certification for teaching of Social Problems (grades 712) will be granted on completion of one of the following two alternatives:
4. The requirements for the Broad Field Social Science major (paragraph B., above.)
5. A minimum of 42 credits in Social Science in the subjects listed below:
a. History: Same as the stated minor in History (24 credits) with History 211 and 212 to contribute to the fulfillment of the requirement.
b. Economics: six credits.
c. Political Science: six credits.
d. Sociology and Anthropology: six credits.

## SOCIOLOGY AND ANTHROPOLOGY (College of Letters and Science)

Kirby L. Throckmorton, Chair (-83); John E. Moffat, Chair Designate (83-).
Room 488, Collins Classroom Building.
Phone: (715) 346-3060.
The major and minors, and the courses offered, in Anthropology are listed under that title earlier in this catalog.
A. A major in Sociology consists of 34 credits, 18 of which will be courses numbered 300 or above. Sociology 101 or 102; Anthropology 101 or 111; Sociology 250, 310 or 322,351 , and 446 are required. The remaining credits may be earned in any other courses in Sociology.
B. A minor in Sociology consists of $\mathbf{2 2}$ credits in Sociology, at least nine of which will be in courses numbered 300 or above. Sociology 101 or 102, and 250 or 446 are required. The remaining credits may be earned in any other courses in Sociology.
For teacher certification, Sociology 101, 102, 250, 310 or 322, and 446 are required.
C. A minor in Sociology and Anthropology consists of $\mathbf{2 2}$ credits, at least nine of which will be in courses numbered 300 or above. Anthropology 101 or 111; Sociology 101 or 102, and 305; Sociology 310 or Anthropology 312; Sociology 250 or 446 or Anthropology 450 are required.
D. In addition to a major in Sociology a student may select a concentration in Adult Life and Aging consisting of a minimum of 15 credits. Of the 15 credits, at least nine shall be from the listed Sociology courses and at least six shall be from the listed cognate courses. Six of the credits in Sociology may count toward the major in Sociology.
Sociology courses: 265, 366, 367, 440, 467, 494 in an appropriate area (1-3 cr), 497-499 in an appropriate area.

## Cognate courses: Economics 328, Home Economics Education 390, Psychology 465.

E. In addition to a major in Sociology a student may select an emphasis consisting of twelve or more credits in a specified area, six of these credits may count toward the 34 credit major. The emphases are:

1. Social Psychology: 310, 311, 315, 322.
2. Deviance and Social Control: 230, 332, 333, 368, 490 (Deviance).
3. Family and Socialization: 224, 225, 240, 322, 343, 468.
4. Urban and Community: 260, 300, 356, 357, 358; Anthropology 350.
5. Social Work: 261, 262, 361, 362, 363, 494, 495.

Students with interest in preparing for specialized graduate studies, professional schools, or careers should request assignment to advisers concerned with the specialty of interest. The adviser will work with the student in designing a study program.
A minimum grade point ratio of 2.00 in the major field is a requirement for acceptance of the student as a major at the start of the junior year. The minimum 2.00 grade point ratio is also a requirement for retention as a major during the junior and senior years, and for department approval of the major or minor for graduation. The chair of the department may allow exceptions to this standard on a conditional basis.

Students may petition the department chair for acceptance of course work done at other institutions. No more than one-half of the credits required for graduation in a major program within this department may be earned outside this University. Modification of this rule may be made by the department chair.
Courses may be taken out of normal class-level sequence only through consent of the adviser and of the instructor.

## Courses in Sociology

100. Forum in Sociology or Social Work. 1 cr. Lectures on and discussions of current social issues or topics in Sociology and Social Work. A subtitle will be added each time the course is offered. May be repeated under different subtitles for a maximum of three credits. Two hrs per wk or equiv. Pass-Fail ONLY.
101. Introduction to Sociology. 3 cr . Sociology as a special field of social science, social relations, and social systems; the organization of societies and other human groupings; fundamentals of sociological investigation, dealing with the underlying premises, concepts, logic, and methods of sociology.
102. Social Problems. 3 cr . Theories explaining social and personal disorganization and deviation; selected contemporary problems analyzed and related to their social contexts.
103. Sociology of Childhood. 3 cr . Socialization processes in the early years; impact of social and cultural forces on child-rearing practices and outcomes; child welfare. Prereq: 101 or 102.
104. Sociology of Adolescence. 3 cr . Socialization processes in the adolescent years; impact of social and cul-
tural forces on adolescent issues and problems. Prereq: 101 or 102.
105. Criminology. 3 cr . Analysis of crime as an institution, with reference to the behavior of those who define, engage in, or become the victims of criminal behavior. Prereq: 101 or 102.
106. Marriage and the Family. 2 or 3 cr. Institutional variations of marriage and family; the contributions of behavioral sciences to understanding the processes of courtship and marriage interaction. Prereq: 101 or 102 and So st.
107. Methods of Sociological Inquiry. 3 cr . The scientific method and its application to society; techniques of social investigation. Prereq: 101 or 102.
108. Population Problems. 3 cr. Demography, population theory, trends, and analysis; United States and world population. Prereq: 101 or 102 or Economics 200.
109. Introduction to the Field of Social Work. 3 cr . Development of social welfare; contemporary public and private programs and appropriate settings; philosophy and principles of Social Work. Prereq: 101 or 102, or Anthropology 112, or cons instr.
110. Social Welfare Policies and Programs. 3 cr. Development and philosophy of social welfare as an institutional system; critical analysis of programs, policies, and issues; their inter-relationship with other aspects of the social system. Prereq: 261 or cons instr.
111. Social Problems of Aging and Old Age. 3 cr. Factors that account for the changed position of the aged in society; analysis of problems of the aged and proposed solutions. Prereq: 101 or 102 or cons instr.
112. Minority Groups. 2 or 3 cr . The role of minorities in society, their influence, impact, and relationship to the larger society. Prereq: 101 or 102.
113. Special Topics in Sociology. 1-3 cr. Selected topics in Sociology will be examined. A subtitle indicating the topic will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Prereq: 3 cr in Sociology or Anthropology or cons instr.
114. The American Community. 2 or 3 cr . Community organization and the social processes influencing community behavior and change. Prereq: 101 or 102 or cons. instr.
115. Political Sociology. 3 cr . Empirical and theoretical analysis of the social bases, distribution, and management of political power in industrial societies. Prereq: 101 or 102 or cons instr.
116. Minority Relations. 1 cr. Lectures and discussions by faculty and guest lecturers; emphasis on awareness and understanding of values, life styles, and contributions of various minority groups, including women. Not to be counted toward a major in Sociology. No grade will be given except P or F; attendance is required for P. Prereq: Jr st or cons instr.
308/508. Sociology of Medicine. 3 cr. Analyses of the social organization of medicine and health care delivery systems, including the social processes and conditions of disease and health, such as adaptations to illness; the sick role, and the doctor-patient relationship. Prereq: 101 or 102 or cons instr.
117. Social Psychology. 3 cr. Social learning and social habits in relationship to the development of the social self in groups: interaction, perception, motivation, attitudes, values, communication, roles in interpersonal relations. Prereq: 101 or 102 or cons instr.
118. Collective Behavior. 2 or 3 cr . The sociology of organized and unorganized social actions; the mob, crowd, mass behavior and social movements; the dynamics of mass persuasion. Prereq: 101 or 102 or cons instr.
119. Propaganda and Public Opinion. 3 cr . Theories and facts regarding propaganda and public opinion, mass communication and censorship, and a study of measurement and control of public opinion. Prereq: 101 or 102 or cons instr.
120. Group Dynamics. 3 cr . Analysis of small groups including leadership and group interaction; research techniques. Prereq: 101 or cons instr.
121. Culture and Personality. 3 cr. Development of personality in relation to patterns of cultures and sub-cultures in which one grows up; materials will be drawn from literate and non-literate cultures. Credit may not be earned in both 322 and Anthro 312.
122. (Formerly 421/621) Social Inequality. 3 cr. Analysis of patterns of inequality in the distribution of power, rewards, and opportunities between classes and other groups.
Prereq: 101 or 102 or cons instr.
123. Poverty, Welfare, Social Insurance. 2 or 3 cr. Study of poverty in the United States; income maintenance programs including social security, unemployment insurance, workers' compensation, pension plans, and social assistance; health insurance. Credit may not be earned in both Sociology 328 and Economics 328. Prereq: Nine cr in Sociology or Economics 200 or cons instr.
124. Juvenile Delinquency. 3 cr . Definition, scope, types and sociological explanations of juvenile delinquency in regard to both its lone and gang forms, and a study of delinquency control techniques. Prereq: 101 or 102 or cons instr.
125. Corrections. 2 or 3 cr . Analysis of the institutionalized responses to criminal behavior through which society attempts to control and treat offenders. Prereq: 230 or 332.
126. Field Work and/or Community Research. 2 to 4 cr. Research or field work planned and carried out by a class (not individual research) under close supervision of the instructor. Topic will be announced each time the course is offered. Prereq: $\mathbf{2 5 0}$ or cons instr.
127. The Family: Cultural Perspectives. 2 or 3 cr . The family as a social institution, its place in different cultures and social strata, the impact of industrialization and urbanization. Credit may not be earned in both 343 and Anthro 343. Prereq: 101 or 102 or cons instr.
128. Social Statistics. 4 cr . Types of social statistics, sources of data, frequency distributions, averages, dispersions, probability, chi-square, correlation; application in sociological and anthropological research. Three hours lec, two hrs lab per week. Prereq: 250 or cons instr.
129. Urban Soclology. 3 cr . Comparative and historical approach to cities; urban spatial structure, temporal patterns and population characteristics; ecological factors; the social structure and psychological aspects of urban metropo-
lis; implications for policy and planning. Prereq: 101 or 102 or cons instr.
130. Sociology of Planning. 3 cr . Social context of policy making and planning process; theoretical approaches to planning; planning and social change; specific topics in planning (city and regional, social service, environment). Prereq: 101 or 102 or cons instr.
131. Regional Sociology. 2 or 3 cr . Area based statistical indices and characteristics, rural patterns and limits of urban dominance, evidence of continuing historic and ethnic tradition, as used by sociologists and anthropologists to develop convenient units for social, cultural, and sub cultural analyses. Prereq: 101 or 102 or cons instr.
132. Bureaucracy. 3 cr . Analysis of the structure and functioning of complex organizations in contemporary society. Prereq: 101 or 102 or cons instr.
133. Social Work Methods: Casework and Group Work. 3 cr. Generic principles of social work microsystems; concepts and practice of casework with individuals and families, interviewing, relationships, social diagnosis, and treatment; group work practice, principles of model development, diagnosis, and treatment. Prereq: 261.
134. Social Work Methods: Community Organization and Social Service Administration. 3 cr . Generic principles of social work macrosystems including planning, action, and advocacy; social service administrative concerns including interorganizational relationships, and intraorganizational issues including supervision, consultation, research, and continuing education. Prereq: 261.
135. Rural Sacial Work. 3 cr. Evaluation of non-metropolitan, regional social services and delivery systems; characteristics of rural populations and community analysis; development of social work generalist concept and the occupational function in non-metropolitan areas. Prereq: 261 or cons instr.
136. Sociology of Aging. 3 cr. Analysis of age cohorts, agegrading and age-norms, age changes in their situational contexts. Prereq: 101 or 102 or cons instr.
137. Sociology of Middle Age. 3 cr . Structural analysis of the relationship between social institutions and middle aged persons; analysis of predictable mid-life events. Prereq: 101 or 102 or cons instr.

368/568. Sociology of Mental Health. 3 cr. Sociological perspectives and interpretations in the nature and causes of mental disorders. Theories of controlling mental illness, the development of mental health policies in the United States and strategies of preventive and community psychiatry. Prereq: 101 or 102 or cons instr.
370. Socio-cultural Change in Emergent Countries. 3 cr . Study of the problem and processes of development in emerging countries. Credit may not be earned in both 370 and Anthro 370. Prereq: 101 or 102 or cons instr.
375. Social Structure and Change in East Asia. 2 or 3 cr. Background analysis, demographic characteristics, and institutions; comparative study of recent change and development in China, Japan, and Korea. Prereq: 101 or 102 or cons instr.
The former 421/621 is now 327.

431/631. Sociology of Religion. 3 cr. A description and analysis of the structure and function of religion as a universal institution, with emphasis on the interaction of the religious system and the social structure, contemporary trends in religion related to the changing institutions of American Society. Prereq: 9 cr in the Social Sciences or cons instr.
445/645. Development of Social Thought. 3 cr . To the nineteenth century. Prereq: 9 cr in the Social Sciences or cons instr.
446/646. Sociological Theory. 3 cr. From Comte to the present. Prereq: 9 cr in the Social Sciences or cons instr.
452/652. Laboratory in Social Research. 2 or 3 cr . The conduct of advanced sociological inquiry, individual research or group projects approved by the instructor. Prereq: 250 and 351; or consent of the chair.
460/660. Sociology of Work, Leisure, and Retirement. 3 cr. The nature and function of work, retirement as a process, preparation for and adjustment to retirement. Prereq: 9 cr in Social Science or cons instr.
467/667. Social Gerontology. 3 cr. Critical issues in social gerontology; emphasis on industrialized societies; analysis of techniques for implementing programs and policies relating to the older population. Prereq: 9 cr in the Social Sciences, or cons instr.
468/668. Problems in Family Interaction. 3 cr. Examination of contemporary problems relating to the family field. Prereq: 9 cr in the Social Sciences or cons instr.
490/690. Seminar: Fields of Sociology. 2 or 3 cr . Theory and research in sociology as it applies to general and special areas of study. A subtitle indicating the subjects will be added each time the course is offered; may be taken for credit more than once as subject matter changes. Primarily for majors. Prereq: 9 cr in the Social Sciences or cons instr.
494. Social Work Practicum. 1 to 6 cr. Observation and social work practice under the guidance of cooperating Field Placement Supervisors in an approved social service agency; emphasis on guided social work. Students majoring in Sociology, upon affirmative recommendation of the Coordinator of Field Placements and the approval of the department chair, may apply for placement in a social service agency. Must be taken concurrently with 495 . Prereq: 361.
495. Social Work Practicum Seminar. 1 cr. Weekly meetings of students currently in social work practicum (494) to discuss the application of social work practice theory to the agency setting, to increase knowledge of and identification with the social work profession. Concurrent enrollment in 494 is required. May be repeated for a maximum of four credits, total.
497-499. Special Work. Each 1 to 3 cr. Upper-class students majoring or minoring in Sociology may, by agreement with the department chair, arrange for special out-of-class work, for which credit may be allowed on the basis of one credit for each week, or its equivalent, devoted exclusively to a special project. Each may be repeated up to a maximum of six credits.
Normally, students will not be permitted to present more than six credits in special work.
497. Sociological Analysis and Research.
498. Social Work and Social Administration.
499. Sociology of Knowledge.
702. Intergroup Relations. 3 cr . Advanced study of conflict and cooperation in human groups, with emphasis on contemporary problems of cultural minorities. Prereq: 9 cr in the Social Sciences or cons instr.
748. Theories of Society. 3 cr. Major theoretical contributions to understanding social organization and the social system. Prereq: 9 cr in the Social Sciences or cons instr.
760. Seminar in Aduit Development and Socialization. 2 or 3 cr . Advanced study of selected topics in adult development and socialization; designed for persons involved in or preparing for the areas of program development and the administration of programs concerned with mid-life and late maturity. Prereq: 9 cr in the Social Sciences or cons instr.
796. Independent Study. 1 to 3 cr . Designed to enrich and supplement the student's preparation in his area of specialization. Prereq: 9 cr in the Social Sciences and consent of the chair.
799. Thesis. 2 to 6 cr .

## SOIL SCIENCE

For the description of the major and minor and for course listings in Soil Science, see the section headed Natural Resources earlier in the catalog.

## SPANISH

For the description of the major and minor and for course listings in Spanish, see the section headed Foreign Languages and Comparative Literature earlier in the catalog.

## SPECIAL STUDIES (College of Letters and Science)

50. Science Skills. 2 cr. (Experimental 1982-84) Basic concepts and skills in mathematics and science, with associated practical applications. For students whose previous academic preparation is inadequate for introductory col-lege-level mathematics and science courses. Classes meet daily for eight weeks; the credits do not count toward graduation. For further information, call or write to Douglas D. Post, Room 404, College of Natural Resources Building. Phone: (715) 346-3078.

## SPEECH

See Communication.
SPEECH PATHOLOGY AND AUDIOLOGY

## See Communicative Disorders.

## TECHNICAL WRITING (College of Letters and Science)

James A. Gifford, Coordinator.
Room 429, Collins Classroom Building.
Phone: (715) 346-2078.
An interdisciplinary minor in Technical Writing is administered by the Department of English. It consists of 24 credits:
(1) Required courses - 12 credits: English 250, 254, 354; Business 320 or Computer Science 101.
(2) Electives -12 credits selected from the following in consultation with the coordinator, with a maximum of six credits from any one department: Art 106; Communication 227 (Basic Journalism), 331, 365, 400; English 350, 498 (up to 3 cr ); Instructional Resources 351 ( $\mathbf{l a b}$ sections 4, 9, and one from 1, 3, 7, 8); Natural Resources 369 .
Students should meet the Natural Science requirement for a degree by using courses from the following: Biology 101, 130, 160; Chemistry 101, 105, 115; Physics 101, 103, 150.


## THEATRE ARTS (College of Fine Arts)

Alice Peet Faust, Chair. Room B-107, Fine Arts Building. Phone: (715) 346-4429.
A. A major in Theatre Arts consists of 55 credits, and is available in either one of two options:

1. Drama Option:
a. Fifteen credits: Drama 140 or $240,171,213,242$ or 243, 352.
b. Eleven credits in Drama 162, 215, 351, 375.
c. At least 21 credits selected from no fewer than four of the following groups ( means "when appropriate"):
c.1. Techniques - Acting: Drama 129* 132,172 , 271, 272, 399*, 429*
c.2. Techniques - Dance: 103, 104, 105, 106, 211 , 212.
c.3. Techniques - Directing: Drama 129*, 374, 376, 399*, 429*, 475.
c.4. Techniques - Oral Interpretation: Drama 130, 399*.
c.5. Design: Drama 129*, 249 (Scene), 270, 370, 349/449 (Scene, Costume, Light), 399*, 429*.
c.6. General: Drama 383, 399*, 429*.
c.7. History/Literature: Drama 255, 327, 399*, 410, 412, 490*.
c.8. Technical Theatre: Drama 129*, 240, 242, 243 (if not used in a., above), 249 (Scene Painting), 349/449 (Sound, Misc.), 399*, 429*.
d. Participation, four to eight credits, one credit each semester: Drama 126, 226, 326, 426; with no more than two credits in any one of these areas: Acting, Design, Directing or Assistant Directing, Scenery, Lights, Costumes, Properties, Sound, Make-up.
2. Dance Option:
a. Fifteen credits in Drama 140 or 240, 171, 213, 242 or 243, 352.
b. Twenty-seven credits in Dance 101, 201, 301, 302; and Physical Education 310; and either (1) or (2) below:
(1) Techniques (each 2 credits): Dance 105, 106, 205, 206, 305, 306, 405, 406.
OR
(2) $103,104,203,204,303,304,403,404$.

Those students not in Teacher Education must reach a proficiency level of IV in the chief technique area (Ballet or Modern) and level II proficiency in the other.
c. Five credits of guided electives, selected with the approval of the adviser, from other courses in Theatre Arts, Art, Music, Physical Education.
d. Eight credits of participation: Dance 211, 212, 309, 317.
B. A major in Theatre Arts (Drama) for Teacher Certification consists of 46 credits:

1. Twenty-six credits in Drama 130, 140, or 240, 162, 171, 213, 215, 351, 352, 375;
2. Twenty-seven credits selected from areas 1.c. and 1.d. listed under the major above.
3. Drama Education 382 is required as part of the education sequence.
C. A minor in Theatre Arts (Drama) consists of the 26 credits listed in parts 1.a. and 1.b. of the major, except that a student has the option to take either 242 or 243 or three credits of Theatre Practicum (126, 226, 326, 426) in activity other than acting. For teacher certification, Drama Education 382 is required as part of the education sequence.
D. A minor in Theatre Arts (Dance) consists of 26 credits:
4. Dance 101, 216, 301, 309; and either 317 or 201.
5. EITHER Dance 105 or equiv, and eight credits from 103, 104, 203, 204, 303, 304, 403, 404; Proficiency IV (Modern) and Proficiency II (Ballet).

OR Dance 103 or equiv, and eight credits from 105, 106, 205, 206, 305, 306, 405, 406; Proficiency IV (Ballet) and Proficiency II (Modern).
3. Three or four credits from Dance $108,110,211,212$, 227, 302, 309, 318.
E. A minor in Theatre Arts (Dance) for teacher certification consists of 26 credits:

1. Dance 101, 103 or 105, 301, 309.
2. Dance Education $217,220,420$.
3. Eight credits from EITHER (a) Modern - 103, 104, 203, 204, 303, 304, 403, 404; OR (b) Ballet - 105, 106, 205, 206, 305, 306, 405, 406.
4. Three credits from Dance 108, 110, 211, 212, 216, 227, 309.

## Courses in Dance

Any Dance course selected in lieu of Physical Education 101 must be counted as a required Physical Education course in meeting requirements for a degree, and can not be counted in the other 120 credits required.
Students minoring in Dance must complete 120 credits for graduation plus sufficient credits to meet the general Physical Education requirement.
See also course listing under Dance Education (next section).
101. History and Appreciation of Dance. 3 cr. Cultural history of dance, theory and philosophy of dance, and laboratory experience in dance technique. Two hours lec, one and one-half hours lab per week.
103. Beginning Modern Dance I. 2 cr. Modern dance technique, composition, and improvisation. Three hours per week. One credit of 103 may be used toward the Phy Ed requirement.
104. Beginning Modern Dance II. 2 cr. Continuation of 103. Three hours per wk. May be repeated once with cons instr for a total of four cr. One cr of 104 may be used toward the Phy Ed requirement. Prereq: 103 or cons instr.
105. Beginning Ballet l. 2 cr. Basic barre exercises and floor work. Three hours per wk. One credit of 105 may be used toward the Phy Ed requirement.
106. Beginning Ballet II. 2 cr . Continuation of 105, with the addition of floor progressions and combinations. Three hours per wk. May be repeated once with cons instr for a total of four cr. One cr. of 106 may be used toward the Phy Ed requirement. Prereq: 105 or cons instr.
108. Folk and Square Dance. 1 cr . Beginning international folk dance. Two hours per week. May be used toward Phy Ed requirement.
110. Social Dance. 1 cr . Beginning ballroom dance. Two hours per week. May be used toward the Phy Ed requirement.
201. History of Dance in the Twentieth Century. 3 cr. A study emphasizing the relationship of 20th century dance to the other arts and humanities. Prereq: 101 or cons instr.
203. Intermediate Modern Dance I. 2 cr. Modern dance technique, composition and improvisation. Four hours per week. May be repeated once, with consent of instructor, for a total of four credits. One credit of 203 may be used toward the Phy Ed requirement. Prereq: 104, or cons instr.
204. Intermediate Modern Dance II. 2 cr. Continuation of 203. Four hours per week. May be repeated once, with consent of instructor, for a total of four credits. One credit of 204 may be used toward the Phy Ed requirement. Prereq: 203 or cons instr.
205. Intermediate Ballet I. 2 cr . Continuing instruction in barre and center floor combinations. Four hours per week. May be repeated once, with consent of instructor, for a total of four credits. One credit of 205 may be used toward the Phy Ed requirement. Prereq: 106, or cons instr.
206. Intermediate Ballet II. 2 cr. Continuation of 205. May be repeated once, with consent of instructor, for a total of four credits. One credit of 206 may be used toward the Phy Ed requirement. Prereq: 205, or cons instr.
211. Beginning Specialty Dance and Stage Movement. 2 cr. Theatrical dance forms and period styles of movement. Three hrs per wk. Open only to Theatre Arts majors and minors, or by cons instr. One cr. of 211 or 212 may be used toward the Phy Ed requirement. Prereq: So st.
212. Advanced Specialty Dance and Stage Movement. 2 cr. Continuation of 211. See description above. One cr. of 211 or 212 may be used toward the Phy Ed requirement. Prereq: 211 or cons instr.
216. Survey of Historical Dance Styles. 2 cr. History of musical literature in relationship to historical dance forms; medieval through the twentieth century. One hr lec, two hrs lab per wk. Prereq: Placement test; students with deficiencies must take 227.
227. Dance Workshop. 1 to 6 cr . The area of concentration will appear as a subtitle each time the course is offered (Tap, Jazz, Pointe, Partnering, Fundamentals of Rhythm, et al); may be repeated for credit under different subtitles. Prereq: Cons instr.

301/501. Dance Composition I. 3 cr. Beginning experience in creative manipulation of the basic elements of movement into brief choreographed forms. Four hrs per wk. Prereq: 101, 216; or cons instr.
302/502. Dance Composition II. 3 cr. Continuation of 301. See description above. Prereq: 301 or cons instr.
303/503. Advanced Modern Dance I. 2 cr. Modern dance technique, composition, and improvisation. Four hours per week. May be repeated twice, with consent of instructor for a total of six credits. One credit of 303 may be used toward the Phy Ed requirement. Prereq: Cons instr.
304/504. Advanced Modern Dance II. 2 cr . Continuation of 303. Four hours per week. May be repeated twice, with consent of instructor, for a total of six credits. One credit of 304 may be used toward the Phy Ed requirement. Prereq: Cons instr.
$305 / 505$. Advanced Ballet I. 2 cr. Advanced ballet techniques and combinations. May be repeated twice, with consent of instructor, for a total of six credits. One credit of 305 may be used toward the Phy Ed requirement. Prereq: Cons instr.
$306 / 506$. Advanced Ballet II. 2 cr. Continuation of 305. May be repeated twice, with consent of instructor, for a total of six credits. One credit of 306 may be used toward the Phy Ed requirement. Prereq: Cons instr.

309/509. Dance Theatre. 2 cr . Performance experience in ballet and modern dance. Four hours per week. May be repeated twice, with consent of instructor, for a total of six credits. One credit of 309 may be used toward the Phy Ed requirement. Prereq: Audition with instructor and consent of instructor and chair.
317/517. Beginning Labanotation. 2 cr . Fundamentals of the Labanotation system of movement literacy to include the analysis, reading, performance, and notation of movement patterns. Beginning certification through the Dance Notation Bureau is optional upon completion of the course. Three hrs per wk. Prereq: Cons instr.
318/518. Intermediate Labanotation. 2 cr. Continuation of $317 / 517$ to include more complex reading, performances, and notations. Intermediate certification optional. Three hrs per wk. Prereq: 317.
327/527. Dance Workshop. 1 to 6 credits. Area of concentration will appear as a subtitle each time the course is offered (Tap, Jazz, Pointe, Partnering, Fundamentals of Rhythm, et al); may be repeated for credit under different subtities. Prereq: Cons instr.
399/599. Special Work. 1 to 6 cr. Students may, by agreement with the instructor and the Chair of the department of Theatre Arts, arrange for special out-of-class work on individual or group projects, for which credit may be given on the basis of one credit for every week, or its equivalent, devoted exclusively to the project. Subtitle will be listed each time the course is offered.
The former 401 (Phil \& Aesth) has been discontinued.
401/601 (New) Dance Composition III. 3 cr. Continuation of 302, with emphasis on practical experience in all aspects of the theatrical production of original choreography. Three hrs per wk. Prereq: 302, Drama 242, and cons instr; open to juniors with special permission of instr and chair.
403/603. Advanced Modern Dance III. 2 cr. Continuation of 304. Four hrs per wk.; may be repeated once for credit. Prereq: Cons instr.
404/604. Advanced Modern Technique IV. 2 cr. Continuation of 403. Four hrs pr wk; may be repeated once for credit. Prereq: Cons instr.
405/605. Advanced Ballet III. 2 cr. Continuation of 306. May be repeated once for credit. Prereq: Cons instr.
406/606. Advanced Ballet IV. 2 cr. Continuation of 405. May be repeated once for credit. Prereq: Cons instr.
409/609. Dance Midwest. 2 cr. Performance experience in a touring dance company. Four hrs per wk. May be repeated four times for a total of eight credits. Prereq: Audition.
The former 410 has been discontinued. See 401.

## Courses in Dance Education

217. Methods of Teaching Recreational Dance. 2 cr. Techniques for teaching folk, square, social, modern, and tap dance. Four hrs per wk. Enroliment limited to majors in Physical Education, minors in Recreation, and Theatre Arts majors and minors.
218. Dance in the Elementary School. 1 cr. Dance forms basic to a balanced elementary school physical education program. Two hours per week. Prereq: So st.

The former 327 has been discontinued.
420/620. Dance Practicum. 2 cr. Controlled experience in teaching dance. Three hours per week. Prereq: Cons instr; open to juniors with special permission of instructor and chair of the department of Theatre Arts.

## Courses in Drama

See also the course listing under Drama Education (next section).
105. Appreciation and History of Theatre. 3 cr . Development of theatre including the modern media of television and motion pictures; emphasis on preparation for intelligent criticism as a member of an audience.
126. Theatre Practicum. 1 cr . Practical work in dramatics by special arrangement with the instructor. (See part 2.c. of the major listed above.)
129. Drama Workshop. 1 to 6 cr . Intensive laboratory experience. The workshop's area of concentration will appear as a subtitle each time the course is offered.
130. Introduction to Interpretive Reading. 3 cr. Fundamentals of oral interpretation.
132. Voice and Diction. 2 cr . Improvement of the speaking voice, analysis and correction of poor speech patterns, and the study of syllabification and work emphasis to convey meaning more clearly.
140. Stagecraft I. 3 cr . Basic stagecraft: the stage and its equipment; standard tools and shop equipment; basic materials and techniques of simple scenery construction; basic electrics and theatre sound. Two hrs lec, two hrs lab per week, plus participation in University Theatre productions.
The former 149 has been discontinued.
162. Introduction to Script Analysis. 2 cr. How to read and understand a play; emphasis on structure, content, meaning, form, and style, based on major ancient and modern theories.
171. Theories and Techniques of Acting I. 3 cr. Fundamentals of acting; character analysis; techniques and practice; relation of the role to the play as a whole. Four hrs per week.
172. Theories and Techniques of Acting II. 3 cr. Continuation of 171, with emphasis on character development. Four hrs per week. Prereq: 171 or cons instr.
213. Survey of Dramatic Literature: Tragedy. 3 cr. Styles, theories and literature of world drama emphasis on the classic heritage: representative plays studied in the context of their times. Prereq: So st.
215. Survey of Dramatic Literature: Comedy. 3 cr. Styles, theories, and literature of world drama; emphasis on the classic heritage; representative plays studied in the context of their times. Prereq: So st.
226. Theatre Practicum. 1 cr. Practical work in dramatics by special arrangement with the instructor. (See part 2.c. of the major listed above.) Prereq: So st.
The former 230 has been discontinued.
240. Stagecraft II. 3 cr . Advanced stagecraft and continuation of 140, emphasizing more complex production techniques, special materials, and production flow planning.

Two hrs lec, two hrs lab per wk, plus participation in University Theatre productions. Prereq: 140 or cons instr.
242. Stage Lighting. 3 cr . Theory and practice in the application of methods and principles of lighting for theatrical production. Two hrs lec, two hrs lab per wk. Prereq: 140 or 240 or cons instr.
243. Stage Costume Design and Construction. 3 cr. Study and application of the principles of design as applied to stage costume with emphasis on the drafting of patterns and construction of workable, stageworthy costumes. One hr lec, four hrs lab per wk. Prereq: So st.
249. Technical Theatre I. 3 cr . Introduction to the production craft of the theatre, offered under several subtitles. May be taken once for credit under each. Prereq: 140 or 240 or cons instr.

Scene Design. Two hrs lec, two hrs lab per wk.
Scene Painting. One hr lec, four hrs lab per wk.
255. Introduction to Stage Costume. 3 cr . Development and fundamental principles of the art of costuming for the stage in their relation to theory and practice. Two hrs lec, two hrs lab per week. Prereq: So st.
270. Stage Make-up. 2 cr. Purpose and techniques of application of theatrical make-up; the use of make-up in the various theatrical media; emphasis on stage use. One hr lec, two hrs lab per week. Prereq: 171, or cons instr.
271. Advanced Acting I. 3 cr . Intensive study in the art of acting; emphasis on production, styles of acting, development of techniques, rehearsal problems. Four hrs per week. Prereq: 171 and 172, or 171 and cons instr.
272. Advanced Acting II. 3 cr . Continuation of 271. Four hrs per week. Prereq: 271.
326/526. Theatre Practicum. 1 cr. Practical work in dramatics by special arrangement with the instructor. (See part 2.c. of the major listed above.)

327/527. Fundamentals of Playwriting. 3 cr . Basic elements of the playwriting process; idea, structure, theme, plot, characterization, dialogue, language; project writing and class criticism.
329/529. Drama Workshop: Theatre as a Popular Art. 3 or 6 cr . Popular theatre from the viewpoint of the audience, the artists, and producing groups (including theatre, TV drama, and film), through visits and tours to theatre rehearsals, TV studios, and motion picture locations; activities to be supplemented with seminar appearances by actors, writers, designers, producers, directors, and other theatre artists actively engaged in theatre as a Popular Art. Performance attendance and evaluation required, with different levels of involvement at the different credit levels. Offered only as part of the UW-SP Overseas Studies Program. Does not count toward the major or minor in Drama; may be applied toward the Humanities requirement for the degree. Prereq: Jr st, or cons instr.
349/549. Technical Theatre II. 3 cr . Continuation of 249. Advanced work in the production crafts of the theatre, offered under several subtitles; may be taken once for credit under each.

Scene Design. Two hrs lec, two hrs lab per week.
Prereq: 149 and 249 (Scene); or cons instr.
Costume Design. One hr lec, four hrs lab per week.
Prereq: 149 and 243, or cons instr.

Lighting Design. Two hrs lec, two hrs lab per week. Prereq: 242 or cons instr.
Theatre Sound. One hr lec, two hrs lab per week.
Prereq: 140 or 240 or cons instr.
351/551. History of Theatre I. 3 cr. Development of the arts and techniques of the theatre from the beginning through the Renaissance.
$352 / 552$. History of Theatre II. 3 cr . Development of the arts and techniques of the theatre from the Renaissance to the present.

370/570. Advanced Stage Make-up. 2 cr. Continuation of 270. Prereq: 171 and 270; or cons instr.

The former 374 has been discontinued.
375/575. Beginning Directing I. 3 cr . Theory of directing; exercises in blocking and performance of scenes. Four hrs per week. Prereq: 171, and at least three cr in dramatic literature. ( 140 or 240 is recommended.)
$376 / 576$. Beginning Directing II. 3 cr. Practice in directing scenes and one-act plays; development of skills in directing. Four hrs per week. Prereq: 374 and 375, or cons instr.
$383 / 583$. Creative Dramatics. 3 cr . Philosophy and techniques of creative drama with emphasis on its relation to creative education in general.

The former 396 has been discontinued.
399. Special Work. 1 to 6 cr . Upper-class students majoring or minoring in Drama may, by agreement with the chair, arrange for special work on individual or group projects, for which credit may be given on the basis of one credit for every week, or its equivalent, devoted exclusively to the project.

410/610. Masters of the Theatre. 2 cr. Intensive study of one or more playwrights and/or designers and/or directors and/or actors. The subject will be determined by the instructor offering the course. A subtitle will be added each time the course is offered indicating the subject(s). (May be taken more than once for credit as subject matter changes.) Prereq: St st, or Jr st and cons instr.
412/612. Contemporary Theatre. 3 cr . The American and European theatre of the last few years; representative plays from the works of contemporary dramatists as well as analysis of current theatre trends. Prereq: Sr st, or Jr st and cons instr.

426/626. Theatre Practicum. 1 cr. Practical work in dramatics by special arrangement with the instructor. (See part 2.c. of the major listed above.)

429/629. Drama Workshop. 1 to 6 cr . Designed to provide the student with intensive laboratory experience. The workshop's area of concentration will appear as a subtitie each time the course is offered. Prereq: Sr st, or Jr st and cons instr.

449/649. Technical Theatre III. 3 cr . A continuation of 349. Special projects and techniques of handling advanced technical theatre problems, offered under several subtitles; may be taken once for credit under each.

Scene Design. Two hrs lec, two hrs lab per week. Prereq: 249 (Costume and Lighting); and 349 (Scene); or cons instr.
Costume Design. One hr lec, four hrs lab per week. Prereq: 349 (Costume) or cons instr.
Lighting Design. Two hrs lec, two hrs lab per week. Prereq: 149, and 249 (Scene) and 349 (Lighting); or cons instr.
Technical Production. Three hrs lec per week. Prereq: 240, and 249 (Scene and Lighting); cons instr.
Miscellaneous Technical Problems. Two hrs lec, two hrs lab per week. Prereq: Nine credits in technical theatre courses and cons instr.

The former 475 has been discontinued.
The former 484 has been discontinued.
490/690. Seminar in Theatre. 3 cr . Research and discussion of specialized areas of theatre and drama. A subtitle indicating the subject(s) will be added each time the course is offered; may be taken more than once for credit as subject matter changes. Prereq: Sr st, or Jr st and cons instr.
702. Foundations of Dramatic Art. 3 cr. An intensive study of theatre as an art and as a cultural force. An aesthetic and historical consideration of dramatic literature and the interpretive arts of the stage, motion picture, radio, and television.
725. Problems in Play Production. 3 cr. A lecture-laboratory course in the directing and mounting of productions.
770. Seminar. 3 cr . Selected studies and advanced theory in drama and interpretation. Subtitle indicating the subjects will be added each time the course is offered; may be taken more than once for credit as subject matter changes.
785. Creative Drama for Children. 3 cr. Survey of story materials; development of diction and body movements; characterization and improvisation.
796. Independent Study. 1 to 3 cr . Designed to enrich and supplement the student's preparation in his area of specialization; regularly scheduled conferences with a staff supervisor.
799. Thesis. 2 to 6 cr .

## Course in Drama Education

382. Teaching Drama in the Secondary School. 3 cr. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in high school teaching.

## WATER RESOURCES

For the description of the major and for course listings in Water Resources, see the section headed Natural Resources earlier in the catalog.

## WILDLIFE

For the description of the major and for course listings in Wildlife, see the section headed Natural Resources earlier in the catalog.

## WOMEN'S STUDIES <br> (College of Letters and Science)

Katherine A: White, Coordinator.
Room 439, Collins Classroom Building.
Phone: (715) 346-4749.
A minor in Women's Studies consists of 22 credits distributed as follows:

1. Women's Studies 105,300 , and 490 or three credits of 499.
2. Selections from the following:

Economics 372 (Consumer Economics); English 285 (Women in Literature); History 313/513 (European Women), 385/585 (American Woman); Home Economics 166 (Family Relations and Individual Development); 367 (Family Structure and Interaction); 372 (Consumer Economics); Political Science 317 (Political Woman);
Psychology 240 (Psychology of Women); Religious Studies 330 (Sexual Images and Myths in Religion); Sociology 240 (Marriage and the Family), 468/668 (Problems in Family Living).
Other courses with appropriate sub-titles, when approved for inclusion by the Women's Studies Committee, such as: Communication 395 (Women in the Media); English 102 (Changing Sex Roles, or Sex Stereotypes); Sociology 490 (Sociology of Sex Roles). Courses are added to this list each year; check with the Women's Studies coordinator for an update.

## Courses in Women's Studies

105. Introduction to Women's Studies. 3 cr . Socialization of individuals into sex roles and the reinforcement of these roles; status and role of women in contemporary American society in school, marriage, employment, and politics; examination of historical and cross-cultural materials.
300/500. Topics in Women's Studies (Humanities Emphasis). 3 cr . Inter-disciplinary examination of one of the major topics in Women's Studies. May be taken for credit twice under different subtitles. May be used as "Humanities" credit in meeting requirements for a degree. Prereq: 105 or cons instr.
106. Practicum. 1 to 3 cr. Students may arrange through the Women's Studies coordinator to work with a community organization or agency directly involved in aiding women.
107. Seminar. 3 cr . The changing status of women in contemporary society; investigation of selected aspects of woman's role, e.g., in government, education, law, the family, the community; research involving reading and direct research projects, producing significant data or a seminar paper.
108. Special Work. 1 to 3 cr . Students minoring in Women's Studies may, by agreement with the Women's Studies coordinator, arrange for special work. Research will involve reading and direct research project, producing significant data or a seminar paper.


## Faculty and Academic Staff

\# Indicates Graduate Faculty.

* Indicates part-time assignment.

Date indicates beginning of continuous service at the University of Wisconsin-Stevens Point.
This listing is as of the 1982-83 school year.
Appointments for less than one semester are not listed.
The initials HPERA indicate Health, Physical Education, Recreation, and Athletics.
\# MARGERY V. ABER, Associate Professor of Music; Director, American Suzuki Talent Education Center, 1967. B.M., Oberlin College: M.A., Columbia University.

RICHARD C. ACKLEY, Assistant Professor of Sociology and Anthropology, 1967. B.S., Western Michigan University; M.A., University of Michigan, Ann Arbor.
JANICE S. ALBERTSON, Interior Designer, Student Life Business Operations, 1980. B.S., University of Wisconsin-Stevens Point.
\# BETTY JEAN ALLAR, Professor of Education, 1966. B.S., University of Wisconsin-River Falls; M.S., University of WisconsinMadison; Ed.D., University of Northern Colorado.
CALVIN YOUNG ALLEN, Instructor in Communication, 1969. B.A., University of Evansville; M.A., Ohio University.
\# BARBARA J. ALVAREZ, Assistant Professor of Music, 1981. B.M.E., Florida State University; M.M., Ph.D., University of Michigan, Ann Arbor.
DON J. AMIOT, Instructor; Business Manager in HPERA; 1971. B.S. Mayville State College; M.S., South Dakota State University.

MARGARET N. ANDERSEN*, University Child Learning and Care Center, 1982. B.S., University of Wisconsin-Stevens Point.
\# RAYMOND K. ANDERSON, Professor of Wildlife, 1966. B.S., University of Wisconsin-Stẹvens Point; M.A., University of Michigan, Ann Arbor, Ph.D., University of Wisconsin--Madison.
ROBERT T. ANDERSON, Associate Professor of Geography, 1953. B.S., University of Wisconsin-Eau Claire; M.S., University of Wisconsin-Madison.
RICHARD ANDERSON-SPRECHER*, Lecturer in Mathematics, 1981. B.A., Carleton College; M.A., University of Minnesota.

OLIVER A. ANDREWS. Associate Protessor of Chemistry, 1960. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison.
\# LISA LOUISE ARONSON, Assistant Professor of Art, 1981. B.A., Wayne State University; M.A., Ph.D., Indiana University.
\# M. ROBERTO ASSARDO, Professor of Foreign Languages, 1973. B.A., M.A., Indiana University; Ph.D., University of California, Los Angeles.
\# DONALD L. AYLESWORTH, Associate Professor of Communicative Disorders, 1969. B.S., Western Michigan University; M.A., Ph.D., Michigan State University.
VIRGINIA L. BAETEN*, Lecturer in Home Economics, 1982. B.S., M.S., University of Wisconsin-Stevens Point. (Sem I)

DIANE M. BAILIFF, Service-Learning Adviser, Student Life Activities and Programs, 1979, B.S., University of Wisconsin-Stevens Point.
\# JOHN D. BAILIFF, Professor of Philosophy, 1966. A.B., Stanford University; M.A., Ph.D., The Pennsylvania State University.

WILLIAM BAILY, Jr., Assistant to the Chancellor for Equal Opportunity and Affirmative Action, 1982. B.A., University of Texas at EI Paso; M.S., Ph.D., University of Wisconsin-Milwaukee.
MARY ANN BAIRD, Assistant Professor of Home Economics, 1962. B.S., University of Wisconsin-Stout; M.S.T., University of Wisconsin-Stevens Point.
\# ROBERT F. BALAS, Professor of Communicative Disorders; 1976. A.B., Valparaiso University, M.A., Northern Illinois University; Ph.D., University of Denver,
JOHN W. BARNES, Associate Professor of Biology, 1956. B.S.. Ohio University: M.S., University of Minnesota.
ALLEN F. BARROWS, Instructor in the Learning Resources Center; Director of Public Services; 1969. B.S., University of Wiscon-sin-Stevens Point; M.L.S., Indiana University.
ANITA O. BARSNESS*, Instructor in Home Economics, 1971. B.A., Saint Olaf College; M.S., University of Wisconsin-Stevens Point.
\# ROBERT BARUCH, Professor of Theatre Arts; Assistant to the Assistant Chancellor for Student Life; Director of Student Conduct; 1967. B.A., North Texas State University; M.S., University of Colorado at Boulder; Ph.D., University of Minnesota.
\# NANCY E. BAYNE, Assistant Professor of Psychology. 1975. B.S., M.S., Ph.D., Iowa State University of Science and Technology.

DAVID H. BEADLE, Associate Professor of Music, 1973. B.M., University of Wisconsin-Madison; M.M., Eastman School of Music. University of Rochester.
\# KIRK H. BEATTIE, Assistant Professor of Wildlife, 1979. B.S., Colorado State University; M.S., Mississippi State University; Ph.D., Virginia Polytechnic Institute and State University.
\# LLOYD H. BECK, Professor of Psychology, 1964, A.B., A.M., Oberlin College; Ph.D., Brown University. (Retired 12-22-82)
\# ROBERT B. BEEKEN, Assistant Professor of Physics and Astronomy, 1980. B.A., Western State College of Colorado; M.S., Ohio University; Ph.D., The University of lowa.
\# RICHARD H. BEHM, Assistant Professor of English, 1976. B.A., College of Saint Thomas; M.F.A., Ph.D., Bowling Green State University.
HOLLY L. BEMBENEK, Director, Conference and Reservations, 1976. B.S., B.A., University of Wisconsin-Stevens Point.

RICHARD BENNETT, Basketball Coach, HPERA, 1976. B.A., Ripon College; M.E.P.D., University of Wisconsin-Stevens Point.
\# DONALD A. BENZ, Professor of Education, 1966. B.E., University of Wisconsin-Stevens Point; M.A., Ph.D., George Peabody College for Teachers, Vanderbilt University.
\# JOHN M. BERND, Professor of Education, 1964. B.S., University of Wisconsin-La Crosse; Ph.M., Ph.D., University of Wiscon-sin-Madison.
\# MARK R. BERNSTEIN, Assistant Professor of Physics and Astronomy; Director of the Planetarium; 1982. S.B., Massachusetts Institute of Technology; A.M., Ph.D., Indiana UniversityBloomington.
JOHN L. BETINIS, Physician and Associate Director, University Health Service, 1977. B.A., M.D., University of Southern California; M.P.H., University of California, Berkeley.
MARY LOU BIDDLESTONE, Instructor in HPERA, 1963, B.S., Slippery Rock State College; M.A., University of Minnesota.
\# JOHN R. BILLINGS, Associate Professor of Philosophy, 1966. B.S., Lehigh University; M.A., Brown University; Ph.D., Syracuse University.
\# THOMAS H. BINDEL, Assistant Professor of Chemistry, 1982. B.A., Ph.D., University of Colorado at Boulder.

JOHN J. BIRRENKOTT, Director, Student Life Business Operations, 1976. B.S., University of Wisconsin-Stevens Point.
\# E. SHERWOOD BISHOP, Associate Professor of Sociology and Anthropology, 1972. B.A., Lakeland College; M.A., University of Wisconsin-Milwaukee; Ph.D., Florida State University.
LYNN A. BLAIR, Assistant Professor of HPERA, 1965. B.S., MacMurray College; M.S., University of Southern Mississippi.
ALLEN F. BLOCHER, Associate Professor of Physics and Astronomy, 1958. B.S., McPherson College; M.S., University of Ne-braska-Lincoln.
\# MELVIN BLOOM, Associate Professor of Foreign Languages, 1966. B.S., The Ohio State University; M.A., Universidad de las Americas (Mexico City College); Ph.D., Universidad Interamericana.
PATRICIA ANN BLOOM*, Lecturer in English, 1968. B.A., M.A., Ohio University. (Sem I)
\# THOMAS K. BLOOM, Associate Professor of English, 1968. A.B., M.A., Ph.D., Ohio University.

RANDALL D. BOLTON, Lecturer in the College of Natural Resources, 1980. B.S., University of Wisconsin-Stevens Point.
\# STEPHEN R. BONDESON, Assistant Professor of Chemistry, 1980. B.S., University of Wisconsin-Stevens Point; Ph.D., Duke University.
\# JON T. BOROWICZ, Professor of Music, 1975. B.M., M.M. The Cleveland Institute of Music; Ph.D., University of WisconsinMadison.
\# RObert O. BOWEN, Professor of Health and of Physical Education, HPERA, 1966. B.S., M.S., University of WisconsinMadison; H.S.D., Indiana University.
\# FRANK D. BOWERS, Assistant Professor of Biology, 1975. B.S., Southwest Missouri State University; M.S.,-Ph.D., University of Tennessee, Knoxville.
\# JAMES A. BOWLES, Professor of Soil Science, 1967. B.S., Colorado State University; Ph.D., University of Wyoming.
LAWRENCE R. BRANDT, Assistant Professor of Geography, 1967. B.S., Southwest Missouri State University; M.A., University of Arkansas.
\# FRIEDA E. BRIDGEMAN, Professor of Theatre Arts, 1965. B.S., Southeast Missouri State University; M.S., Ph.D., University of Wisconsin-Madison.
EUGENE N. BRODHAGEN, Associate Professor of HPERA, 1956. B.S., M.S., University of Wisconsin-Madison.

KENNETH J. BROWN, Assistant Professor of Mathematics, 1966. S.B., University of Chicago; M.A., University of Missouri, Columbia.
\# MARK BRUEGGEMAN, Assistant Professor of Art, 1974. B.A., M.F.A., Southern Illinois University-Edwardsville.
\# THOMAS J. BUCHHOLZ, Instructor in English, 1970. B.S., University of Wisconsin-Oshkosh; M.A., University of WisconsinMilwaukee.
EDWARD M. BUDA*, Lecturer in Psychology, 1982. B.S., University of Wisconsin-Milwaukee; M.A., Ph.D., California School of Professional Psychology.
FRED M. BUEHLER, Assistant Professor in the Learning Resources Center, 1968. B.A., University of Minnesota-Duluth; M.L.S., University of Wisconsin-Madison; M.S.T., University of Wisconsin-Stevens Point.
PATRICIA J. BUEHLER*, Lecturer in Sociology and Anthropology, 1982. B.A., M.S., University of Wisconsin-Madison. (Sem I)
MARY JO BUGGS, Assistant Professor of English, 1966. B.S., M.S.T., University of Wisconsin-Stevens Point.
\# ROGER A. BULLIS, Associate Professor of Communication, 1971. B.A., M.A., Ph.D., University of Wisconsin-Madison.
\# LEE A. BURRESS, Professor of English, 1958. A.B., Wichita State University; B.S., Garrett Theological Seminary; Ph.D., Boston University.
JENNIFER J. BURTON, Violin Specialist, American Suzuki Talent Education Center, 1977. B.M.E., University of Wisconsin-Eau Claire; M.M.Ed., University of Wisconsin-Stevens Point.
ROBERT W. BUSCH, Director, University Centers, 1967. B.S., Concordia Teachers College, River Forest, Illinois; M.S., University of Wisconsin-Milwaukee.
SHERRY BUSHKO*, Lecturer in Mathematics and Computer Science, 1982.
KATHLEEN T. BUSS*, Adjunct Assistant Professor of Home Economics, 1982. B.S., The Ohio State University; M.Ed., Ph.D., Georgia State University.
WILLIAM J. CABLE, Associate Professor of Mathematics, 1962. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison; M.B.S., University of Colorado at Boulder.
LINDA A. CALDWELL, Instructor in Theatre Arts (Dance), 1982. B.A., The University of lowa; M.S., M.F.A., University of Wiscon-sin-Madison.
JOSEPH F. CALIGURO, Residence Hall Director, 1980. B.A., University of Maryland; M.Ed., The Pennsylvania State University.
CHRISTOPHER M. CALLAHAN, Assistant Professor of Music, 1982. B.M., Wichita State University; M.M., University of Michigan, Ann Arbor.
\# JOHN BAIRD CALLICOTT, Associate Professor of Philosophy, 1969. B.A., Southwestern at Memp'nis; M.A., Ph.D., Syracuse University.
NANCY A. CALLICOTT*, Assistant Director, Carlsten Gallery; Learning Resources Center Educational Displays; 1979. B.A., Southwestern at Memphis.
\# JAMES L. CANFIELD, Associate Professor of Political Science, 1969. A.B., Albion College; M.A., Ph.D., University of Michigan, Ann Arbor.
ANN D. CARLSON*, Assistant Professor of Business Administration, 1970. B.S., University of Wisconsin-Whitewater; M.A., University of Northern lowa.
\# STANLEY L. CARLSON, Professor of Mathematics, 1965. B.S., University of Wisconsin-River Falls; M.A., University of Northern lowa; Ed.D., University of Northern Colorado.
\# MARK CATES, Professor of Political Science, 1963. A.B., M.A., Ph.D., Indiana University.
\# JAGDISH CHANDER, Professor of Physics and Astronomy, 1966. B.Sc., D.A.V. College Jullundur (Pb.), Panjab University; M.Sc., Birla Institute of Technology and Science, Pilani; Dr. rer. nat.,' Friedrich Alexander University, Erlangen-Nuremberg.
JYOTSNA CHANDER*, Lecturer in Mathematics, 1968. B.A.
H.M.V. College, Jullunder City; M.A., Panjab University (D.A.V. College, Jullundur City; M.E.P.D., University of Wisconsin-Stevens Point.
THERESA CHAO, Instructor in the Learning Resources Center, 1971. B.A., National Chengchi University; M.L.S., University of Oklahoma.
\# GERALD E. CHAPPELL, Professor of Communicative Disorders, 1962. B.S., Kent State University; M.A., Northwestern University; Ph.D., University of Wisconsin-Madison.
MARY K. CHECK, Lecturer in Home Economics, 1983. B.S., M.S., University of Wisconsin-Stevens Point.
CINDY CHELCUN, Adviser, Student Involvement Program, Student Life Activities and Programs; 1978. B.S., University of Illinois at Urbana-Champaign; M.S.Ed., University of WisconsinOshkosh.

WILLIAM S. CHIAT*, Lecturer in Natural Resources; Assistant Director, Central Wisconsin Environmental Station; 1980. B.S., University of Minnesota; M.S., University of Michigan, Ann Arbor.
\# DAVID P. CHITHARANJAN, Professor of Chemistry; Director of Medical Technology: 1968. B.S. (Hons), M.Sc., Annamalai University, Madras, India; Ph.D., Wayne State University.
RICHARD CHOYKE, Assistant Professor of Business Administration, 1979. B.S.Ed., Black Hills State College; M.P.M., Indiana Northern University.
DARRELL A. CHRISTIE, Assistant Professor of Economics, 1964. B.S., Jamestown College; M.S., University of Illinois at UrbanaChampaign.
\# RICHARD D. CHRISTOFFERSON, Sr., Professor of Political Science, 1970. B.A., Black Hills State College; M.A., Ph.D., Purdue University.
\# MYRVIN F. CHRISTOPHERSON, Professor of Communication, 1969. B.A., Dana College; M.S., Ph.D., Purdue University.
\# EUGENE J. CLARK, Assistant Professor of Sociology and Anthropology, 1968. B.A., University of Montana; M.S., Montana State University: Ph.D., Louisiana State University.
\# WILLIAM L. M. H. CLARK, Associate Professor of English, 1969. B.S., M.S.T., University of Wisconsin-River Falls.
\# ALICE L. CLAWSON, Professor; Associate Dean of the College of Professional Studies and Head of the School of Health, Physical Education, Recreation, and Athletics; 1966. B.S., The Ohio State University; M.A., Ph.D.. Texas Woman's University.
SHARON S. CLOUD, Development Specialist, Native American Center, 1979. B.S., University of Wisconsin-La Crosse.
\# DANIEL W. COBLE, Adjunct Protessor of Fisheries; Leader, Wisconsin Cooperative Fishery Research Unit; 1971. B.S., Purdue University; M.S., Oregon State University ; Ph.D., University of Toronto.
SUSAN J. COE, Assistant Professor of Sociology and Anthropology, 1976. B,A., Texas Christian University; M.S.W., Boston University.
\# DAVID L. COKER, Associate Professor of Psychology; Assistant to the Chancellor; 1966. B.A., Western Illinois University; M.A., The University of lowa; Ed.D., Indiana University.
MARG COKER', Lecturer in Business and Economics, 1983. B.S., Culver-Stockton College; M.A., Indiana University.

JAN COLE*, Lecturer in Mathematics, 1981. B.S., University of Wisconsin-Stevens Point.
RICHARD L. CONLON, Associate Protessor of Mathematics, 1964. B.S., Creighton University; M.S., University of Michigan, Ann Arbor.
\# DAVID A. COPELAND, Instructor in Music, 1978. B.M.E., M.A., Central Missouri State University.
\# FREDERICK A. COPES, Professor of Biology and of Fisheries, 1964. B.S., University of Wisconsin-Stevens Point; M.S., University of North Dakota; Ph.D., University of Wyoming.
\# ROBERT M. COPPINGER, Associate Professor of Sociology and Anthropology, 1970. B.A., M.A., Ph.D., University of Missouri, Columbia:
\# HELEN M. CORNELI, Professor of English; Director of International Programs; 1962. B.S., M.A., University of Illinois at Ur-bana-Champaign; Ph.D.. University of Wisconsin-Madison.
DUAINE K. COUNSELL, Associate Professor of HPERA, 1957. B.S., University of Wisconsin-Stevens Point; M.S., University of Wisconsin-Madison.
CHARLES L. CRANDALL, Assistant Professor of HPERA; Athletic Trainer; 1969. B.S., Bowling Green State University; M.S., Syracuse University.
\# JAY H. CRAVENS, Professor of Forestry and of Natural Resources, 1976. B.A., Coe College; B.S., M.F., Colorado State University.
\# LOUIE CREW, Associate Professor of English, 1979. B,A., Baylor University; M.A., Auburn University; Ph.D., University of Alabama.
\# ALBERT J. CROFT, Professor of Communication, 1967. B.A., Nebraska Wesleyan University; M.A., Ph.D., Northwestern University.
MARY K. CROFT, Associate Professor of English; Director, Writing Laboratory; 1967. B.A., M.A., University of Chicago.
\# FRANK W. CROW', Emeritus Protessor of History, 1947. A.B., M.S., Northwest Missouri State University: Ph.M., Ph.D., University of Wisconsin-Madison.
MARY CUNEY, Counselor, PRIDE, 1981.
\# JACK F. CURTIS, Associate Protessor of Communicative Disorders, 1971. B.A., Ohio Northern University; M.A., Ohio University; Ph.D., Case Western Reserve University.
\# JOHN D. CURTIS, Associate Professor of Biology, 1976. B.S., Western Illinois University; M.S., The Ohio State University; Ph.D., Iowa State University of Science and Technology.
ROBERT LOUIS CWIERTNIAK, Counseling Psychologist, 1978.
B.A., St. Joseph's College, Indiana; M.S.Ed., Chicago State University, Ed.D., University of Northern Colorado.
ANNE H. CZAIKOWSKI*, University Child Learning and Care Center, 1981. B.S., University of Wisconsin-Stout.
\# MARY JO CZAPLEWSIK, Associate Professor, Associate Dean of the College of Professional Studies and Head of the School of Home Economics; 1981. B.S., Silver Lake College of the Holy Family; M.Ed., St. Louis University; Ph.D., University of Minnesota.
WALT S. DAUM, Director of Clinical Services, School of Communicative Disorders, 1981. B.S., Clarion State College; M.S., University of Wyoming.
\# WILLIAM C. DAVIDSON, Associate Professor of Communication, 1968. B.A., Goshen College; M.A., Ph.D., The University of Kansas.
ELIZABETH S. DAVIS*, Lecturer in Home Economics, 1982. B.S, University of California, Berkeley; M.S., Ph.D., University of Wis-consin-Madison, (Sem I)
ROBERT L. DEAN, Director of Academic Computing, 1982. B.B.A., M.B.A., The University of Kentucky.
\# SUBHASH S. DEODHAR, Associate Professor of Paper Science. 1978. B.Tech., Indian Institute of Technology, Bombay; Ph.D., Syracuse University.
\# IMOGENE DE SMET, Professor of English, 1968. B.A., College of St. Mary of the Wasatch; M.A., Creighton University; M.A., Ph.D., University of Toronto.
\# THOMAS DETWYLER, Professor of Geography, 1981. B.S., University of Michigan, Ann Arbor; Ph.D., The Johns Hopkins University.
WILLIAM DiBRITO, Student Development Adviser, 1978. B.A., University of North Dakota; M.A., Ball State University. (Resigned 11-1-82)
\# JULIA PHELPS DIETCHE, Assistant Professor of English, 1976. B.A., Vassar College; M.A., New York University; Ph.D., University of North Carolina at Chapel Hill. (Iv 80-81)
\# DANIEL J. DIETERICH, Assistant Professor of English, 1976. B.A., M.A., DePaul University; Ph.D., University of Illinois at Ur-bana-Champaign.
\# CORALIE E. DIETRICH, Professor of Psychology, 1968. B.A., The Catholic University of America; M.A., Ph.D., University of Minnesota.
\# DONALD J. DIETRICH, Professor of History, 1968. B.A., Canisius College; M.A., Ph.D., University of Minnesota. (Iv Sem II)
\# WINTHROP C. DIFFORD, Professor of Geology, 1968. B.S., Mount Union College; M.S., West Virginia University; Ph.D., Syracuse University.
PAUL E. DOEBLER, Jr., Assistant Professor Music, 1975. B.S., M.S., The Juilliard School.

PATRICIA A. DOHERTY, Associate Director, Counseling and Human Development Center, 1979. B.A., M.A., Ph.D., The University of lowa.
RUTH E. DORGAN, Instructor in English, 1962. B.A., M.A., Louisiana State University, Baton Rouge.
\# FRED R. DOWLING, Professor of Communication, 1960. B.S., University of Wisconsin-Oshkosh; Ph.M., Ph.D., University of Wisconsin-Madison.
\# RICHARD W. DOXTATOR, Associate Professor of English, 1962. A.B., College of Emporia; M.A., Emporia State University; Ph.D., University of New Mexico.
\# LEE SHERMAN DREYFUS, Professor of Communication, 1967. B.A., M.A., Ph.D., University of Wisconsin-Madison. (Iv) (Resigned 12-31-82)
\# JOHN P. DROSKE, Assistant Professor of Chemistry, 1982. B.S., M:S., DePaul University; Ph.D., Colorado State University.
GEORGIA DUERST, Student Involvement Adviser, Student Life and Activities Programs, 1978. B.S., University of WisconsinStevens Point. (Iv 1982-83 - resigned 11-1-82)
JAMES P. DUNIGAN, Associate Professor of Accounting, 1970. B.B.A., M.B.A., University of Wisconsin-Madison.

KEITH H. DUNTON, Residence Hall Director, 1981. B.S., M.B.A., University of Maine.
\# BURDETTE W. EAGON, Professor of Education; Dean, Academic Support Programs; Dean of the Learning Resources Center; 1950. B.S., University of Wisconsin-Oshkosh; M.S. University of Wisconsin-Madison; Ed.D., George Peabody College for Teachers, Vanderbilt University.
JOHN GERALD ECCLES, Residence Hall Director, 1981. B.A., Saint Meinrad College; M.A., James Madison University.
DAVID J. ECKHOLM, Registrar; Director of Registration and Records; 1968. B.S., M.A.T., University of Wisconsin-Stevens Point.
\# DENNIS E. ELSENRATH, Associate Professor of Psychology; Director of Counseling; 1965. B.S., Slippery Rock State College; M.S., Westminster College (Pennsylvania); Ed.D., Indiana University.
KAREN R. ENGELHARD, Director of Alumni Relations; Coordinator, UW-SP Scholarship Program; 1976. B.S., University of Wis-consin-Stevens Point.
\# ROBERT J. ENGELHARD, Professor of Forestry, 1967. B.S., Utah State University; M.S., University of Denver; Ph.D., Michigan State University.
MARY K. EWERT, Counselor, Student Financial Aids, 1981. B.S., University of Wisconsin-Stevens Point; M.A., Ball State University.
\# DANIEL FABIANO, Associate Professor of Art, 1967. B.S., M.S., M.F.A., University of Wisconsin-Milwaukee.
\# RICHARD D. FACE, Professor of History, 1963. B.A., M.A., University of Cincinnati; Ph.D., University of Wisconsin-Madison. (Iv Sem I)
\# DONALD E. FADNER, Associate Professor of Philosophy, 1974. B.A., Carroll College; M.Th., Southern Methodist University; A.M., Ph.D., University of Chicago.

ANN E. FAIRHURST, Instructor in Home Economics, 1977. B.S., Purdue University; M.S., Indiana State University. (Iv Sem II)
\# YIU-KWAN FAN, Associate Professor of Economics, 1981. B.A., University of Hong Kong; M.A., University of Toronto; M.S., Ph.D., University of Wisconsin-Madison.
ETHEL B. FANG, Piano Instructor, American Suzuki Talent Education Center, 1978. B.M., University of Wisconsin-Stevens Point; M.M., Baylor University.
\# MARCUS C. S. FANG, Associate Professor of Psychology; Foreign Student Adviser; 1968. B.A., Southwestern University; M.A., Ph.D., University of Wisconsin-Madison.
\# WILLIAM C. FARLOW, Associate Professor of Education, 1969. B.S.Ed., Ball State University; M.Ed., Ph.D., Wayne State University.
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## Calendar

## First Semester

Official opening
Registration/Orientation
Classes begin
Labor Day recess
Thanksgiving recess begins
Classes resume
Registration for 2nd sem;
ONLY for students registered for 1st sem; classes cancelled for the day.
Last day of classes
Study Day
Final Examinations
Commencement
Semester ends

## Second Semester

Official opening
Registration/Orientation
Classes begin
Spring recess begins
Classes resume
Easter recess begins
Classes resume
Registration for 1 st sem
NEXT year; ONLY for students registered for 2nd sem;
classes cancelled for the day.
Last day of classes
Study Day
Final Examinations
Commencement
Semester ends
Summer Session
Classes begin
Holiday
Commencement; session ends

1983-84
Aug 22 (Mon)
Aug 22-26 (Mon-Fri)
Aug 29 (Mon)
Sep 5 (Mon)
Nov 23 ( 10 pm Wed)
Nov 28 ( 8 am Mon)
Dec 6 (Tue)

Dec 13 (Tue)
Dec 14 (Wed)
Dec 15-20 (Thu-Tue)
Dec 18 (Sun)
Dec 20 (Tue)

| Jan 16 (Mon) | Jan 14 (Mon) |
| :--- | :--- |
| Jan 16 -20 (Mon-Fri) | Jan 14 -18 (Mon-Fri) |
| Jan 23 (Mon) | Jan 21 (Mon) |
| Mar $10(10$ pm Sat) | Mar $30(10$ pm Sat) |
| Mar $19(8$ am Mon) | Apr $8(8$ am Mon) |
| Apr 19 (10 pm Thu) | (Coincides with |
| Apr 23 (8 am Mon) | Spring recess) |
| May 8 (Tue) | May 8 (Wed) |

May 11 (Fri)
May 12 (Sat)
May 14-18 (Mon-Fri)
May 20 (Sun)
May 18 (Fri)
1984
Jun 11 (Mon)
Jul 4 (Wed)
Aug 3 (Fri)

1984-85
Aug 20 (Mon)
Aug 20-24 (Mon-Fri)
Aug 27 (Mon)
Sep 3 (Mon)
Nov 20 (10 pm Tue)
Nov 26 ( 8 am Mon)
Dec 11 (Tue)

Dec 14 (Fri)
Dec 15 (Sat)
Dec 17-22 (Mon-Sat)
Dec 22 (Sat)
Dec 22 (Sat)

Jan 14 (Mon)
Jan 14-18 (Mon-Fri)
Jan 21 (Mon)
Mar 30 ( 10 pm Sat)
Apr 8 ( 8 am Mon)
(Coincides with
May 8 (Wed)

May 10 (Fri)
May 11 (Sat)
May 13-17 (Mon-Fri)
May 19 (Sun)
May 18 (Sat)
1985
Jun 10 (Mon)
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Aug 2 (Fri)

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UW-SP Pointer basketball team - conference and NAIA District 14 Champions




[^0]:    * See the appropriate paragraphs in the section on the College of Professional Studies.

[^1]:    * See the appropriate paragraphs in the section on the College of Professional Studies.

[^2]:    - See the appropriate paragraphs in the section on the College of Professional Studies.

[^3]:    * Required for Home Economics majors.

[^4]:    **Indicates courses which are concerned with individually guided education-multi-unit schools, elementary-secondary (IGE-MUS-E-S).

[^5]:    *Indicates courses which are concerned with individually guided education-multi-unit schools, elementary-secondary (IGE-MUS-E-S).

[^6]:    **IGE-MUS

[^7]:    *All English courses in the 200 series require sophomore standing as a prerequisite except that they are open to English majors in the second semester of their Freshman year.

[^8]:    Xbulales
    Alf inglish courses in the 200 series require sophomore standing as a prerequisite except that they are open to English majors in the second semester of their Freshman year.

[^9]:    1. Theory, 16 credits: Music 110, 111, 112, 113, 210, 211, 212, 213. Placement examination required. Students
