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WISCONSIN STATE UNIVERSITY
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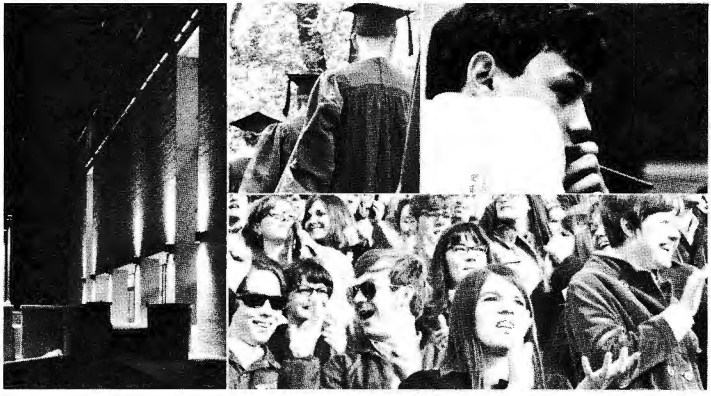
STEVENS POINT, WISCONSIN



Wisconsin State University-Stevens Point
Is a member of:

The American Association of Colleges for Teacher Education
The American Council on Education
The Association of State Colleges and Universities
The American Association of University Women

Is accredited by:

The National Council of Accreditation of Teacher Education
The North Central Association of Colleges and Secondary Schools

WSU-Stevens Point 1969-1970 Catalog

Cover design by Pat Brooks

A record of academic offerings, university policies, faculty and administration, and staff as of January, 1969.

Published quarterly by the Board of Regents of State Universities. Second class postage paid at Stevens Point, Wisconsin 54481. Series V, 16. Whole number 203. Published April, 1969.

Calendar

First Semester	1969-70	1970-71
Freshman Orientation	Sept. 3	Sept. 9
Registration	Sept. 4, 5	Sept. 10, 11
Classes begin	Sept. 8	Sept. 14
Thanksgiving Recess (12:35 Wed. through Sun.)	Nov. 26-30	Nov. 25-29
Christmas Recess (noon Saturday)	Dec. 20	Dec. 19
Classes resume	Jan. 5	Jan. 4
Last day of classes	Jan. 7	Jan. 13
Final examinations	Jan. 9-17	Jan. 15-23

Second Semester		
Registration	Jan. 22-23	Jan. 28-29
Classes begin	Jan. 26	Feb. 1
Spring Recess begins	March 26	April 3
(Easter Sunday)	(March 29)	(April 11)
Classes resume	April 6	April 13
Last day of classes	May 20	May 26
Final examinations	May 22-29	May 28-June 4
Memorial Day	May 30	May 30
Commencement	May 31	June 6

Summer Session	1969	1970	1971
Classes begin	June 16	June 15	June 14
Final examinations	Aug. 7-8	Aug. 6-7	Aug. 5-6
Commencement	Aug. 9	Aug. 8	Aug. 7

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Purpose and Long Range Goals

The primary purpose of Wisconsin State University-Stevens Point is to provide opportunities in higher education for citizens of the State of Wisconsin. Academic programs are offered in general education, liberal and applied arts, pre-professional and professional study, and adult education.

It is the objective of the university that each student, regardless of his curricular program, develop a concept of the signal value of knowledge to mankind and acquire competence in skills of rigorous thinking. He 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 he becomes an educated person.

Goals

1. He communicates effectively by developing the skills of observing, listening, and reading critically, and of writing and speaking with clarity and force.

2. He has an understanding of the history of man and the forces and ideas that have affected human societies, including his own; he is aware of the problems and achievements of various civilizations; and he recognizes that all fields of knowledge are inter-related.

3. He shows concern for the ideals of democracy and social justice and for his responsibility to his fellow-man.

4. He attains confidence in a particular field of endeavor.

5. He appreciates and values the life of the mind as shown by: his ability to think clearly and rationally; the development of his intellectual curiosity; and his understanding of and participation in the arts, philosophy, and scientific disciplines.

6. He is able to think clearly about what he, a person, is, and about his life's purpose, thus reflecting the beginnings of wisdom.

7. He develops an awareness that learning is a life-long process and increasingly becomes self-directed in continuing his education.

To achieve the purposes 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. Work in the last two years provides appropriate specialization.

Wisconsin State University offers a number of programs of instruction. A wide range of majors and minors in the usual academic fields is available. In addition, majors are offered in several special fields: art, business education, chemical technology (pulp and paper), deaf education, food and nutrition, forestry, home economics, medical technology, music, natural resources, speech pathology and audiology, and wildlife.

The master's degree program for teachers was implemented on an academic year basis in September, 1966. Classes are available on a Saturday and late afternoon basis as well as during the summer session.

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. Advisers, directors, and deans will always help a student meet these requirements, but the student himself is responsible for fulfilling them. At the end of his course the faculty decides whether or not 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 for each student to acquaint himself with the requirements and continue to keep himself informed about them during his university career.

Also, it is necessary in the general administration of a university, to establish broad policies and to lay down certain regulations and procedures by which they may be carried out. It is important that a student understand the policies and know the regulations and procedures he is expected to follow.

The catalog is presented, therefore, not only to enable prospective students and others to learn about Wisconsin State University-Stevens Point, but to state policies, requirements, regulations, and procedures in such form as will be of help to the student as he goes through the university.

The Campus

The University
Wisconsin State University-Stevens Point, one of the nine state universities, opened in the fall of 1894 as Stevens Point Normal School. In the intervening years, the Normal School, which was originally established for the education of teachers, became Central State Teachers College, Wisconsin State College, and finally in 1962, it was renamed Wisconsin State University-Stevens Point. Close to 7,000 students are currently enrolled. By the 1970's the student population is expected to reach 10,000.

Location
Stevens Point is located in central Wisconsin in the heart of the Wisconsin River Valley, 110 miles north of Madison. The city's population is approximately 21,500, and the metropolitan area includes 27,000 people. The campus is about one mile east of the business district. Originally located on a five acre site, it has now expanded to include over 200 acres.

Old Main
The Main building includes administrative offices, the auditorium, general classrooms, the departments of home economics, speech, education, art, music, and speech pathology and audiology, and the Speech and Hearing Clinic.

Nelson Hall
Nelson Hall, which was formerly a women's residence hall, has been converted into an administration building. It now houses the departments of military science, drama, English, and natural resources, the Alumni office, Counseling Center, Health Center, and Protection and Security office.

Science Building
Located a few blocks north of the Main building, the Science building houses the biology, chemistry, geography and physics departments.

Opened in September 1963, the building features a Foucault pendulum, planetarium, facilities for radiation research, greenhouse, live animal room, weather panel with remote recording instruments and a cartographic reproduction laboratory.

Classroom Center
The Classroom Center, opened in the fall of 1966, is located just west of the Science building. It houses business education, the foreign language laboratory, the psychology department, piano and music appreciation facilities, faculty offices and conference rooms. The building features a number of educational innovations and is one of the first state buildings to provide complete facilities for television in each room.

Physical Education Building
The Physical Education building is on the corner of Fourth Avenue and Reserve Street, just north of the Science building. Opened in the fall of 1960, it includes gymnasiums, an indoor practice area, swimming pool, offices and classrooms. An addition to the building, which will more than double its present size, is now under construction and is scheduled for completion by the summer of 1969. The addition will include three large gymnasiums, a dance gymnasium, handball court, a larger indoor practice area, classrooms and other facilities.

University Center
The University Center serves as a unifying force in the student's co-curricular life. It is a community center organized for students, faculty, alumni and friends of the University. The Center provides cultural, social and recreational programs which supplement classroom education.

The Center includes dining facilities, a snack bar, games room, a television lounge, University Book Store, offices for major student organizations, publications offices, and several meeting rooms available for use by student and faculty groups. Special services including lost and found, duplicating, and poster are also located in the Center.

Learning Resources Center
The University Learning Resources Center, located between the University Center and the Main building, houses the co-ordinated services of Library, Instructional Media, and University Archives.

The **Instructional Media Services** have holdings in 16-mm films, filmstrips, transparencies, tapes, and single concept films to be used in classroom instruction projection, and production services are maintained for the entire campus. A self-instruction laboratory for the train-

ing in operation of instructional media is maintained. A television studio has been constructed for the production of and experiment with instructional video tapes. Instructional audio tapes are played in the center and sent to listening booths in the reserve reading room. The Instructional Materials Center houses a collection of basic texts used in public schools plus a collection of study prints, maps, globes, study kits, and sources for locating other instruction materials.

The **University library** has a book collection of more than 160,000 volumes. It holds journal files of over 1500 titles which offer backfiles coverage on several titles into the 19th century. The library is an official federal documents depository containing a rich selection for the 1950's and 1960's, and an extensive congressional series from the year 1825. In co-operation with the State Historical Society, the library maintains an Area Research Center for 17 counties in north central Wisconsin. Another strong area of the collection is the large and diversified files of national and state newspapers, both in bound and microfilm editions.

Interlibrary loan service, supported by a union file of periodical holdings of the Wisconsin State Universities and other co-operative catalogs, is available to faculty and graduate students.

University Archives houses and services for campus use the records pertinent to the history of the University including a collection of university and faculty publications and a file of the minutes and proceedings of faculty committees.

University Laboratory School

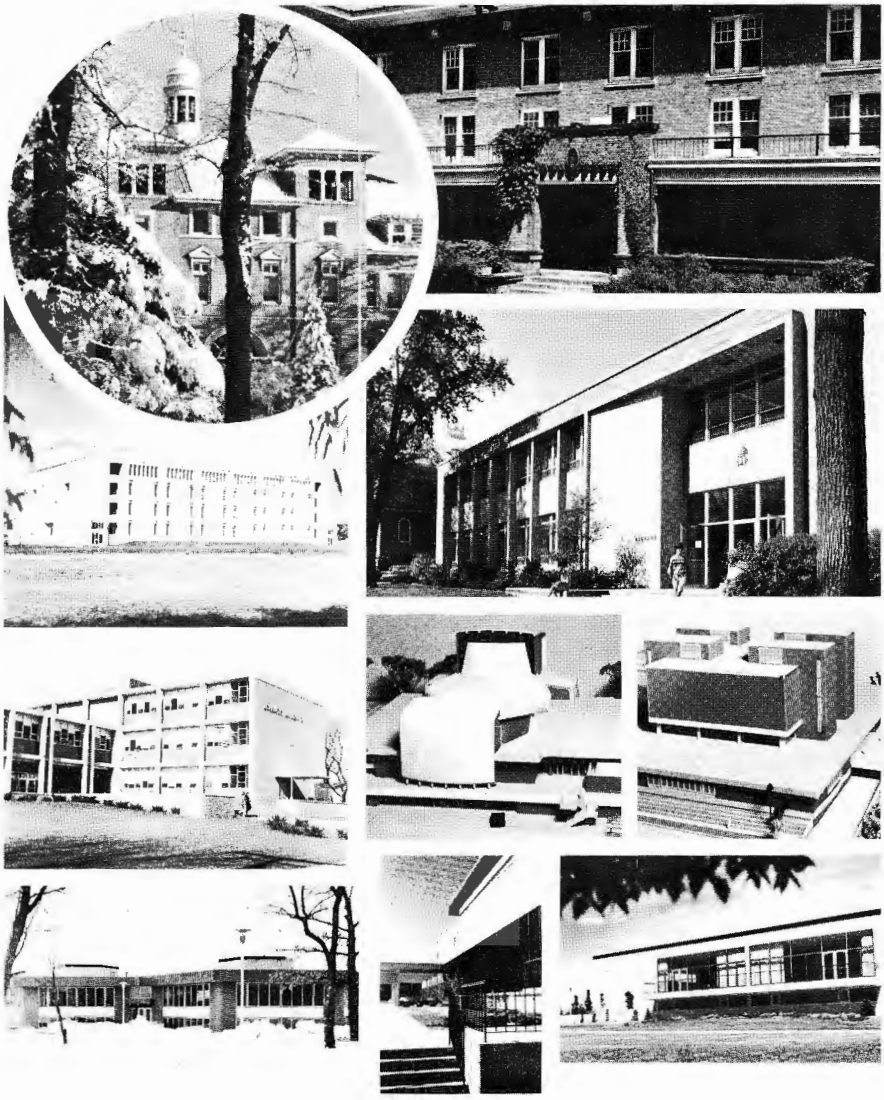
The University Laboratory School is located just north of the Main building on Reserve Street. It provides facilities for educational research, pre-teaching observation, and demonstration teaching. Student teaching experiences are acquired in the public schools of Stevens Point and neighboring communities.

Home Management House

The Home Management House gives the majors in home economics an opportunity to live in a family unit. Several young women live there each semester with a member of the department and manage the house as a family group.

Campus Expansion

The largest building program in any biennium began the summer of 1968 with two facilities, the Fine Arts building and the Learning Resources Center, both scheduled for completion in 1970. Other construction now underway includes an addition to the Physical Education building and another residence hall.



Old Main
Classroom Center
Science Building
DeBot Center

Nelson Hall
Learning Resources
Fine Arts (model)
University Center

New Learning Resources (model)
Allen Center

The Fine Arts building, south of the Classroom Center, will house music, drama, art and dance. It will include a 350 seat concert hall, a 400 capacity theatre, numerous studios, practice rooms and an art gallery.

The Learning Resources Center, south of the Science building, will ultimately contain a book collection of 600,000 volumes, the latest audio-visual and self instructional materials and television studios. It will replace the present university library which was built in 1954 and which will be converted to administrative offices or classrooms once the Learning Resources Center is completed.

Being planned now is a second Classroom Center which will house the Speech Pathology and Audiology department, the Speech and Hearing Clinic, the Home Economics department and additional academic offices. This building should be under construction in 1969.

Residence Halls

Thirteen residence halls are homes for approximately 3,700 students. A fourteenth, Thomson Hall, will open in the fall of 1969 and will house 265 students.

The halls are financed on a self-liquidating program with all costs being met by fees paid by the students. No tax money is used in their construction or maintenance. The halls provide study, sleeping, and living accommodations for each student. In addition, lounge and recreational facilities are provided in each building. These facilities are used extensively for programs and leisure activities.

The residence halls are professionally staffed. The programs provided in the halls are consistent with the total objectives and goals for the students attending this university. Students are encouraged to invite faculty to the hall.

Residence Centers

Residence Center facilities are provided in each residence hall complex, serving the students living in that complex. DeBot, Allen, and a portion of the University Center serve the respective complexes. Food service, snack bars, lounges, study rooms, student offices, and private dining rooms provide facilities for student programming. The student programs are of an educational, social, and cultural nature and include such activities as films, art exhibits, dances, faculty discussions, and musical programs. Activities for these centers are planned by student programming groups consisting of representatives of each of the members of the residence halls.

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. The cashier and mail services are also open during the noon hour. All offices are closed on Saturday.

Parking
Limited parking facilities are available for faculty, staff and students, both resident and commuting. To park on any of the off-street parking areas provided by the university, it is necessary to display a parking permit sticker on the vehicle. This sticker may be obtained for a fee by making application at the Office of Protection and Security, and after receiving approval, making payment of the fee at the cashier's window.

Students living in residence halls must receive initial parking lot assignments through the Office of Student Affairs. Faculty and staff will be assigned lots as close to their assignments as space permits. A copy of specific parking regulations may be obtained at the Office of Protection and Security.

Although new lots are being developed, the expanding university population makes on-campus parking a growing problem. Resident upperclassmen have priority for on-campus parking.

Student Life, Activities, Services

Living Accommodations

Freshmen and sophomore students are required to live in the residence halls. Exceptions are made for married students, veterans, students who reside with their parents or at the home of immediate relatives, and students 21 years of age or over. The upperclassmen, and also the advanced student, will find that the individual attention, counseling, programs, and facilities available in the residence hall can be of major assistance in establishing his university career on a firm foundation. Residence halls are designed to provide students a living-learning experience that is consistent with the objectives and goals established for students at this University. The following residence halls are available for men and women:

Men		Women	
Baldwin	270	Delzell	132
Burroughs	269	Hyer	200
Hansen	270	Neale	270
Knutzen	269	Roach	318
Pray-Sims	402	Schmeeckle	269
Smith	286	Thomson	265
Steiner	206		
Watson	269		

Students living in residence halls are provided their meals at one of the residence centers. Twenty-one meals per week are served in the residence centers. Students residing off-campus may purchase a meal ticket and eat at one of the centers.

Upperclass students who wish to live off-campus may select accommodations from the approved housing list maintained in the office of the Director of Housing. Students 21 years of age or over as of the first day of the semester are permitted to select other housing accommodations if they desire. Students who will become 21 years of age during the semester may select housing accommodations in other than approved housing providing parental permission is obtained.

Residence hall contracts are for the entire academic year. Off-campus housing contracts are for the duration of the semester.

Student Health

The aim of the University Health Service is to aid students in developing physical and mental health care patterns which will equip them for productive lives as adults.

The Service is located in the Nelson Hall basement, northwest entrance. Hours are 7:45 a.m. to 4:30 p.m. Included are services of one full time and one part time physician and three nurses. Preliminary evaluation is done by the nurses, and the majority of cases for the doctor are seen by appointment. Emergencies are cared for as subsequently described.

All graduate and undergraduate students registered on the Stevens Point campus who have paid the Activity Fee and completed the health examination forms are eligible for the Health Service while the University is officially in session. It is suggested that the prospective student complete the Health Record Form and return it to the University as soon as possible. The filing of this form is necessary before final admission will be acknowledged.

Student insurance is offered through a Student Senate program. This program is strongly recommended for all students who do not have other insurance coverage. A family plan is also available for married students at a higher, although still reasonable, cost.

Students living in the residence halls are requested to notify their respective residence hall directors regarding any medical problems occurring at times when the Health Service is not open. The director in turn will contact the nurse on call or a physician as necessary.

St. Michael's Hospital provides 24-hour emergency call service with a physician on call for accidental injuries requiring immediate attention or for sudden severe illness. These services are at the student's expense, whether living on or off-campus.

Off-campus students should call the University switchboard operator for the name of the person to call. Since all after-hours service must be paid for by the student off or on-campus, regardless of who is called, off-campus students who have a personal physician locally are well advised to call him.

Students who suddenly become severely ill, or seriously injured after the Student Health Service has closed, should be taken directly to St.

Michael's Hospital emergency room. Personnel at the hospital will contact a physician.

An ambulance may be obtained for the time being, from the Stevens Point Police; telephone number 344-2121.

No one is in any way obligated to utilize the facilities of the University Health Service, but is free to seek out other local physicians. A list of physicians is available in the yellow pages of the local telephone directory.

The Student Health Service is not set up on a 24 hour a day basis. After the hours listed, students are advised to follow the emergency procedure if serious injury or illness occurs. All services beyond the usual Health Service hours are at the student's own expense.

Counseling Center

Counseling services are available for all students at the Counseling Center located in Nelson Hall. Professionally trained counselors assist students with (1) personal or social adjustment concerns; (2) educational difficulties, i.e., selecting an appropriate educational major or problems with reading and study skills; or (3) vocational planning. Standardized tests are used frequently to aid the student to better understand himself and evaluate his goals. Occupational information is available for review by the student at his leisure. Counselors are available from 8 a.m. to 5 p.m., Monday through Friday. There is no charge for these services to any student enrolled in the university.

Speech and Hearing Clinic

The Speech and Hearing Clinic is located in Room 014 of the Main building. The Clinic staff provides students with a variety of services. It conducts extensive speech and hearing testing of incoming students in order to identify and aid those students who may need help to improve their communicative skill. Students are encouraged to contact the Clinic for personal assistance with their speech and/or hearing problem.

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

The clinic, in conjunction with its educational program, provides practicum experience for students majoring in Speech Pathology and Audiology and in Deaf Education.

News and Publications Service
The News and Publications Service disseminates information concerning the offerings and activities at this University through the mediums of newspapers, radio, television, and publications of all types.

Special services include the release of news stories about students for their home town papers, scheduling of students and faculty members for appearances on area television programs, and publication of the two editions of the newsletter which are distributed on campus each week.

Publications such as the University Catalog, Summer Session Catalog, Graduate Bulletin, Student Handbook, monthly Calendar of Public Events, special bulletins, department brochures, fliers and programs are produced by this office.

Alumni Association
Completely reorganized in 1968, the Alumni Association of WSU at Stevens Point exists solely to serve the interests of all alumni by providing the most effective programs and significant publications possible. Homecoming and Alumni Days in the spring of each year will be Association highlights.

Alumni Association members receive six publications yearly, a "Pointer" pin, alumni decal, membership card, Alumni Tour information, bi-ennial alumni directory, alumni record service, and alumni receptions at WEA meetings. Working closely with many student groups, the Association is helping to build a strong University.

University Placement Center
To assist graduating seniors and alumni of the University in selecting their initial employment following graduation and to locate promotional opportunities when desired, the following services are provided:

(a) Initiating of a placement file to contain information pertaining to each graduating senior including his references and recommendations supplied by the seniors. This process should begin the first semester of the junior year and be up-dated periodically.

(b) Compiling of credentials for employing officials of materials collected in the placement file.

(c) Counseling with graduating seniors regarding interviewing techniques, sources of positions relating to their interests, aptitudes, qualifications and preferences.

(d) Maintaining a current library of employment sources and opportunities including brochures, job descriptions, annual reports, community descriptions, etc. to assist graduating seniors or alumni in their selection for good employment opportunities.

(e) Scheduling interviews for graduating seniors, or alumni on campus or at convenient locations with employing officials.

(f) Up-dating of placement file periodically or at request of candidate.

(g) Expanding the sources of placement opportunities to include all geographic areas as well as employment interests of any graduating senior or alumnus.

Career counseling services are open to all students as well as graduating seniors and alumni at any time.

New Student Orientation

During the summer months prior to his entrance as a freshman, the accepted applicant and his parents are expected to participate in a two-day orientation session. This program is designed to assist new students 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 have a conference with his adviser, prepare his class schedule for the first semester and meet with selected members of the student body. An opportunity is also provided for him to visit with representatives of the Office of Student Affairs regarding housing, financial assistance, student activities and other matters of specific concern.

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 through the college years are made by the faculty and staff of the university.

While on campus, new students and their parents will be housed in residence halls and invited to use the dining facilities at the university.

Student Conduct

The following statement concerning rights and rules of conduct for students of the nine universities of the system was promulgated by the Board of Regents:

> "Although the Wisconsin State University system is committed to the full support of the constitutional rights of its students, including due process in student disciplinary matters, it also has an equal obligation to protect its educational purpose and the interests of its student body. Each university must, therefore, at all times be concerned with the actions of individuals or groups that are in conflict with the welfare and integrity of the institution or in disregard of the rights of other students or faculty. Students and student groups are expected to cooperate in avoiding conduct which is thus prejudicial to the university or its students.
>
> "The State of Wisconsin extends the benefits of admission to its institutions of higher education to those persons who meet certain academic qualifications and standards of health, character and prior conduct. Admission to a university confers benefits beyond those available to all citizens, but commensurate with these are additional responsibilities.
>
> "When a student enters the Wisconsin State University system it is assumed that he has serious purpose and a sincere interest in his own social and intellectual development. He is expected to learn to cope with problems with intelligence, reasonableness and consideration for the rights of others; to obey laws and ordinances of the nation, state and community of which he, as well as his university, is a part, and to conduct himself peaceably in espousing changes he may consider necessary. As he prizes rights and freedoms for himself, he is expected to respect the rights and freedoms of others.
>
> "Students are subject to federal, state and local laws as well as university rules and regulations. A student is not entitled to greater immunities or privileges before the law than those enjoyed by other

citizens generally. Students are subject to such reasonable disciplinary action as the president of the university may consider appropriate, including suspension and expulsion in appropriate cases, for breach of federal, state or local laws or university rules or regulations. This principle extends to conduct off-campus which is likely to have adverse effect on the university or on the educational process or which stamps the offender as an unfit associate for the other students.

"The universities recognize the right of the individual student or of student groups to disagree with national, state, local and administrative or faculty policies and positions. Students have the right, furthermore, to express their disagreement on issues which have captured their interest, and to assemble peaceably for that purpose, subject to reasonable restrictions as to place and time.

"However, the following actions, among others, are specifically prohibited:

a. Interference with accepted functions or activities of the university or with its educational or service programs, either by breach of the peace, physical obstruction or coercion, or by noise, tumult or other disturbance.

b. Unauthorized occupancy of university facilities or blocking access to or from such areas.

c. Interference with approved university traffic (pedestrian or motor vehicle).

d. Infringement of the rights of students, faculty, staff and/or other authorized persons to gain access to any university facility for the purpose of attending classes, participating in interviews, university conferences and/or other university activities.

e. Picketing, or demonstrating, with the use of obscene or indecent language, or with signs or banners containing such language or of such size, material or construction as to create a hazard to persons or property.

"While this by-law is applicable to all of the State Universities, the Board of Regents recognizes that there are appreciable differences in tradition, environment, mission, clientele, and institutional character. Accordingly the president of each university is authorized to establish such additional rules and regulations for student conduct, consistent with the by-laws of the Board of Regents, as he may determine to be appropriate for the needs of the university.

"Power is hereby conferred upon the president of each state university to suspend or expel students for misconduct, and for such other causes as may be prescribed from time to time in these by-laws.

"Without limiting its generality by specification, the term "misconduct" as herein used shall include violation on campus of federal, state or local law or by-laws of the Board of Regents of State Universities or university by-laws, rules or regulations, including the prohibitory provisions of this by-law; and also violations of such laws, by-laws, rules or regulations occurring off campus which are likely to have an adverse effect on the university or on the educational process carried on at the university or which stamp the offender as an unfit associate for the other students.

"A student charged with conduct which may subject him to substantial disciplinary action should of course be afforded reasonable notice of the offense with which he is charged and the general nature of the evidence on which the charge is based, a reasonable opportunity to prepare and present any defense he may have, an adequate and fair hearing, and generally, procedural due process of law. He should be dealt with fairly in all respects and the severity of the discipline when guilt is established should be reasonably commensurate with the gravity of the offense. If in any case the president shall determine that the best interests of the university or of the other students require it, the president may suspend the accused student temporarily, pending prompt determination as to his guilt."

At Wisconsin State University-Stevens Point, some of the offenses against good conduct which will be sufficient cause for disciplinary action, in addition to those mentioned above, including suspension from the university are: the possession or consumption of intoxicating or fermented malt beverages on the campus or in approved off-campus housing, the illicit use or possession of narcotics or drugs, gambling, falsification of information, dishonesty, and disorderly or undesirable conduct.

The Co-Curricular Activities Program

The University provides for student participation in the many varied activities of the co-curricular program. This program includes intellectual, cultural, recreational and social experiences. Through these activities, students are given an opportunity to apply classroom knowledge, to develop their talents, to broaden their interests, and to meet new people. In some instances the student may register for credit in these activities. In such a situation the activity, being curricular rather than co-curricular, is counted as a part of the regular study and class program, and may not be added if the number of credits will be in

excess of the total permitted. When a student is registered for credit, his obligations are the same as in any other course, and at the end of the semester he will be graded on his participation.

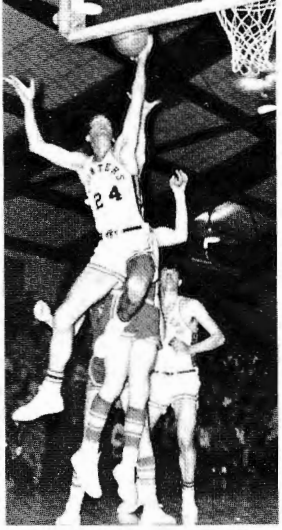
Regulation of Participation in Activities
Activities are important features of a college education and students are encouraged to add to their personal, social, and professional experience and enjoyment by participating in them. However, experience has shown that students need to regulate their study and activities wisely if they are to maintain the required academic standing. University policy suggests that new students and students on probation should be especially careful in selecting the activities in which they will participate. It is recommended that during his first semester a student participate in no more than two co-curricular activities and that any student on probation participate in only one.

The week preceding semester examinations and the period of semester examinations is considered as a closed period during which no activities, practices, or rehearsals are participated in or sponsored for public presentation by the University. Further, no organized meetings or social activities may be sponsored by any University organizations during the above period, with the exception of interscholastic athletics.

Recognition of Student Organizations
Students at the University bring to campus a variety of interests previously acquired and develop many new interests as members of the academic community. They are free to organize and join associations to promote their common interests. University recognition of a student organization does not imply an endorsement of the organization's beliefs. Information regarding the formation of a new organization is available in the Student Activities Office in the University Center.

The Student Handbook
The Student Handbook is published each fall by the News Service in cooperation with the Student Activities Office. The handbook serves as a student guide to campus life. It contains pertinent information regarding Student Services, University Policies and Regulations regarding student conduct, and other general information of interest to the students. Also included is a directory of all the recognized student organizations on campus with a brief description of each group.

The University Activities Calendar
The University Activities Calendar, like the Student Handbook, is published in the fall by the News Service in cooperation with the Student Activities Office. The calendar attempts to list all of the major events in the co-curricular program during the academic year.



Student Governing Organizations
Student participation in the development of institutional policies and regulations is encouraged at the University. The **Student Senate** is the chief campus student governing organization. The Senate works within its own committees and through the faculty-student committee system to represent the interests of the student body.

Associated Women Students is an organization that promotes a program of activities of special interest to college women, and provides leadership in the development of regulations affecting lives of all coeds.

Each of the fourteen residence halls on campus is governed by a **Hall Council** elected by the residents of the hall. The council serves as a unifying force in the hall and promotes spirit and loyalty.

The **University Residence Hall President's Council** is organized to serve as a representative governing body for all students living in residence halls.

Student Publications
The University yearbook, the **Iris,** is produced by a student staff advised by the Director of News Service. It provides an opportunity for students to learn and develop many skills in layout, writing, editing, and photography.

The **Pointer,** the university newspaper, is produced weekly by a student staff selected by the student editor and the adviser who is the Director of News Service. An excellent advent to journalism, the **Pointer** is the student voice on campus and gives the interested student an opportunity to learn and work in writing, editing, proofreading, layout, advertising, and photography.

Student Programming Groups
The **University Activities Board** is an all-campus programming board for the University. Through a student committee structure, the UAB plans programs including Homecoming events, Winter Carnival activities, a coffee house entertainment series, a lecture series, several outing trips and popular concerts.

Each residence hall complex, consisting of residence halls and a residence center facility, has a **Residence Center Program Board.** The students on these boards develop programs of interest to the residents of the complex.

The **Residence Hall Council** serves as the coordinating group for residence hall programming. In addition it sponsors the All Hall Ball during the first semester and Residence Hall Week during the second semester.

Social Fraternities and Sororities
The University endorses the establishment of fraternal organizations on this campus whose programs, aims, and objectives are consistent with the national organization, the National Interfraternity or Panhellenic Conferences, and meet the criteria established by the University for recognition of any student group. Fraternities and sororities are primarily social organizations; however, most groups perform several service projects during the year. A student must demonstrate his academic ability before he may join these organizations. Membership is by invitation. A "rush" period is held twice each year to provide interested students with an opportunity to learn more about the Greek system at the University. All fraternities and sororities at the University are affiliated with a national organization.

Social fraternities represented on campus include:

Delta Sigma Phi
Phi Sigma Epsilon
Sigma Phi Epsilon
Sigma Pi
Sigma Tau Gamma
Tau Kappa Epsilon

The following sororities are represented:

Alpha Phi
Alpha Sigma Alpha
Delta Zeta
Theta Phi Alpha

The activities of these groups are coordinated through the **Interfraternity** and **Panhellenic Councils.**

Honorary Organizations
Several student groups were organized for the purpose of recognizing the outstanding scholars at the University. Such organizations are

commonly called honoraries. Most have special membership requirements pertaining to courses completed and the scholastic average maintained. Membership is by invitation and often implies association with a national as well as a local organization. Throughout the year, these honoraries seek to provide interesting and intellectual programs for the students and to encourage scholarship. The eight honoraries presently recognized on our campus are:

Alpha Gamma (social science)
Associated Women Students Honor Society (general)
Delta Omicron (women in music)
Delta Phi Delta (art)
Phi Alpha Theta (history)
Phi Mu Alpha Sinfonia (men in music)
Sigma Tau Delta (English)
Sigma Zeta (science)

Departmental and Professional Organizations

Some of the recognized student organizations on campus were formed to work closely with a specific academic department or with a specific pre-professional group of students. The membership requirements in these organizations vary, but usually are based on a student's major or minor area of study. Most departmental and professional organizations share the common objectives of: 1) providing students with similar interests an opportunity to exchange information and ideas, 2) promoting general interest and inquiry in the respective major or minor areas, and 3) encouraging faculty and student interaction within small groups. There are twenty-five organizations on campus classified as departmental and/or professional groups. They include:

Alpha Delta Alpha (food and nutrition)
Alpha Mu Sigma (medical sciences)
Economics and Business Association
The Enquirers (philosophy)
French Club
Geography Association
German Club
Home Economics Club
Junior Primary Council (elementary education)
Nu Alpha Tau (resource conservation)
Phi Beta Lambda (business)
Physical Education Major-Minor Club
The Players
Political Science Association
Russian Club
Senior Primary Council (elementary education)
Sigma Mu Tau (medical technology)
Sociology-Anthropology Association
WSU Chapter of the Soil Conservation Society of America
Spanish Club
Speech and Hearing Association
Student Affiliate of the American Chemical Society
Student Art League
Student Chapter of the American Guild of Organists
Student Education Association

Special Interest Groups

Twenty-one of the student organizations at Wisconsin State University-Stevens Point can best be designated as special interest groups. Membership in most of these groups is open to any students interested in the program of the club. (Those marked with an asterisk have special membership requirements.) Each organization plans a variety of activities in keeping with the purposes for which it was formed. Those groups identified as special interest include:

Alpha Phi Omega (men's service group)*
Asian Study Club
Caissa Chess Club
Campus Bowling League
Five-fifty (veteran's group)*
Hockey Club
WSU International Folk Dance Club
International Student Organization
Men's Glee Club
Pocket Billiard League
Poseidon's Aqua Prowlers
Powder Buff Ski Club
"S" Club (lettermen in sports)*
Siasefi (men's social group)*
Soccer Club
Student Youth Volunteers (community service)
Students' Wives Club
Wisconsin Student Movement
Women's Recreation Association
Young Democrats
Young Republicans

Religious Groups

A number of churches in Stevens Point have chosen to affiliate with those student organizations which have as their common purpose the exploration of the relevance of religious beliefs to man in the twentieth century. Membership in each of these groups is open to any interested student. The religious groups organized on our campus include:

Christian Science
Gamma Delta (Lutheran)
Inter-Varsity Christian Fellowship
Searchers (Seventh Day Adventist)
University Christian Movement

The last group, UCM, is an ecumenical organization formed "to do nothing separately, individually, or denominationally, that can be done together with other religious denominations." Those churches associated with the UCM include: Assembly of God, Anglican, Eastern Orthodox, Episcopalian, Lutheran (ALC, LCA, Missouri Synod), Old Catholic, Roman Catholic, and the United Ministry in Higher Education (United Church of Christ. United Methodist Church, United Presbyterian Church, Disciples of Christ, Moravians).

Athletics

Interscholastic sports in which the university participates as a member of the Wisconsin State University Conference are football, basketball, baseball, track, gymnastics, wrestling, tennis, cross-country, swimming and golf. In addition, the university competes against most of the other colleges within the state in various sports. All men students physically fit are urged to take part in one or more of these activities.

The official "S" sweater is awarded to those who fulfill the requirements established by the Athletics Committee. Men who have won a letter in a varsity sport are eligible to become members of the **"S" Club,** an honorary organization from the standpoint of membership, a service organization from the standpoint of function. The "S" Club provides some of the awards granted by the university; stimulates interest in varsity athletics; and participates in a variety of activities calculated to benefit the whole school.

An intramural program has been planned to provide competitive and non-competitive activities mainly for those students not participating in interscholastic athletics. Intramural athletic teams may be formed by residence halls, fraternities, religious organizations, independent groups, etc. A wide range of activities are provided to meet the needs and interests of all students.

Intramural activities for men include archery, cross-country, horseshoes, punt-pass-kick, swimming, touch football, paddleball, foul throw, basketball, badminton, bowling, handball, table tennis, volleyball, golf, relays, tennis, and track and field.

Some special interest groups are also organized through the intramural program. They include the American Red Cross Club, the Judo Club, the Weight Lifting Club, the Jog-a-long Program, and the Soccer Club.

Women's sports are planned by the **Women's Recreation Association,** an organization in which all university women are members. WRA supervises and sponsors a variety of recreational activities, including archery, badminton, basketball, golf, softball, swimming, tennis, field hockey, track and field, and volleyball.

During the year the WRA attends a number of sportsdays held at other colleges in the state, conducts sportsdays in selected activities and plans special programs such as the swim carnival.

The intramural office, in cooperation with the WRA, also plans a number of co-rec programs during the year.

Arts and Lectures

The Arts and Lectures Series sponsors an outstanding program of cultural events and entertainment for the University and the surrounding area.

In the past such attractions as the Philadelphia Orchestra, with Eugene Ormandy conducting, the Houston Symphony, with Andre Previn con-

ducting, Rudolf Serkin, Elisabeth Schwarzkopf, and the Preservation Hall Jazz Band from New Orleans have been presented.

The 1969-70 season promises to be even more exciting, with 12 events of great variety scheduled. These will be presented in two separate series, the Concert Series in the Fieldhouse and the Chamber Series in the Auditorium. Appearing this year will be the Stockholm University Chorus, the Osipov Balalaika Orchestra of Moscow, the Detroit Symphony, and the Canadian Opera Company and the Alvin Ailey American Dance Theatre. In addition to these and other events, there will be two special attractions: a Dixieland Band during Homecoming Week and a Mitch Miller spectacular in the spring.

The Lecture Series, new in 1968, will again present four or five outstanding speakers, and the Audubon Wildlife Films and Travel-Adventure Films will also be continued.

All WSU students are admitted FREE of CHARGE to these Arts and Lectures sponsored events, and reserved seats may be picked up in advance by presenting ID cards at the University Center Information Desk, or at the door. Season tickets are available for each series, and general admission is available at the door. All events begin at 8 p.m.

Art Exhibits

A year-round series of art exhibitions is open to all students. Housed in the LaFollette Lounge of the University Center, these exhibitions feature artists of national and regional reputation. The Director of Art Exhibits, under the supervision of the Art Department, is in charge of the series. Another series of exhibitions is provided by the senior art major students who hold shows from time to time in the Frank Lloyd Wright Room of the University Center. Both series are open to all students and to the public without charge.

Musical Activities

Opportunities to participate and opportunities to listen are both part of the musical program open to all students. Students may participate in concert and marching bands, choir, men's and women's glee clubs, opera workshop, oratorio, brass choir, percussion ensemble, woodwind quintet and other ensembles. Membership includes not only students specializing in music, but many who desire to continue previous musical experiences. Several concerts and tours are scheduled. Among recent operatic productions have been **The Marriage of Figaro, Carmen, Die Fledermaus,** and two one-act contemporary operas, **Sister Angelica** and **Down in the Valley.** Musicals have included **South Pacific** and **Carousel.** Numerous solo recitals by faculty members and students are open to the public throughout the year.

Forensics, Debate, and Public Speaking
The Department of Speech sponsors several activities for students interested in competitive, public, pre-professional, or casual speaking and development on the campus, in the community or at other schools. These activities are open to all students of the university and are designed to augment classroom training and verbal skills in a co-curricular environment. The activities are divided into four distinct areas.

Intercollegiate Debate — The University debate team annually attends 15-20 tournaments throughout the nation in competition with students from other colleges and universities. Teams from approximately 60-70 different schools of all sizes are debated during the season which runs from September until mid-April. The team welcomes beginners with no experience along with students from high school debate programs to this activity designed to develop skills in argumentation, analysis, verbal refutation and research. The team operates within the intellectually stimulating environment of verbal competitive discourse on problems of national and international concern. Academic credit is available.

Intercollegiate Forensics — In addition to intercollegiate debate, this university also competes with other colleges and universities in a number of specific speaking contests. These contests include oratory, extemporaneous speaking, impromptu, discussion, after-dinner speaking and rhetorical criticism. Students from Wisconsin State University attend from three to five individual event speaking contests each year.

Campus Discourse—Members of the speech department are frequently involved in guiding and advising students in the pursuit of diverse on-campus speaking functions. Numerous activities relating to politics, intramural speaking, leadership development, etc. are pursued in this manner and all students are encouraged to seek support and advice on matters of public discourse in the campus community. A wide variety of speaking activities is closely coordinated with all aspects of the student affairs division to integrate training in communications into all appropriate co-curricular student experiences within the university environment.

Leadership Training — Through two one-credit courses and other non-credit activity the Department of Speech offers the student an opportunity to develop his leadership talents.

Each year we host some two-thousand high school speech students at various institutes and contests. All speech majors and minors gain valuable experience helping plan and run these events. In addition, all experienced speech students are invited to help in coaching ele-

mentary and high school students for speech festivals and forensic contests and in judging various forensic events in our area.

Theatre and Interpretation
The University offers a rich program of dramatic and oral interpretation activities under the supervision of the Department of Drama and open to all students, whether or not they major or minor in drama.

The University Theatre Winter Season includes four major stage productions for the public along with a regular schedule of workshops, experimental productions and young people's theatre. Current plans call for a series of tours of certain plays and programs.

The University Theatre Summer Season also offers a program of four major stage productions in a Summer Theatre Festival. This unique enterprise features a Repertory Company of actors plus the talents of interested students in performances of the world's finest dramatic fare. Membership in the Repertory Company is open to qualified students.

These production activities offer experience in directing, acting, stage design and the multiple aspects of technical theatre under the leadership of a professional staff, providing creative sponsorship for many types of talent and interests. Recent productions have ranged in scope and depth from Shakespeare's rollicking **TWELFTH NIGHT,** to the Broadway hit **A THOUSAND CLOWNS,** to the musical comedy **A FUNNY THING HAPPENED ON THE WAY TO THE FORUM,** to the avant-garde theatre's **WAITING FOR GODOT** and **THE FIREBUGS.**

Experimental and student-directed production activity is also sponsored by the Department of Drama.

The Tuesday Afternoon Thing is an exercise in creativity presented on alternate Tuesdays throughout the school year. With a schedule of experiments, readings, lectures, and plays as varied as those who participate, "Thing" describes the intent of the series: to provide generic

sponsorship for individual creative effort and to stimulate thought in all fields through theatre. Programs have ranged from a "happening" to a puppet show, to a dance experiment, to a lecture, to a full production of the controversial play **IN WHITE AMERICA.**

Academic courses in the Department of Drama are coordinated with the production schedule. Since students enrolled in drama courses are expected to participate in departmental productions, optional credit for such participation is available to all students. Those intending to participate in production activity may enroll in Drama 26—Laboratory Work in Dramatics for a total of two credits, and in Drama 126 for a total of four credits. In addition the 1-6 credit Summer Theatre Workshop (Special Studies 9-179), offers variable credit for participation in the many phases of the University Theatre's Summer season.

Oral interpretation activities offer interesting opportunities to students of both literature and drama. Participation is open for all in **Reading Hours** and **Chamber Theatre Performances,** performed before classes and the public. Qualified students may also become members of the Performance Forensics Team, which represents the university in Intercollegiate Festivals throughout the Midwest.

The Players is the University Theatre honorary organization. Membership is open to all students who have met the participation requirements set forth in the constitution. The Players sponsors additional activities and programs, such as the annual University Theatre Awards Banquet and field trips to theatres in other cities, while providing fellowships with others of similar cultural interests.

Radio and Television

The Radio-TV Workshop, under the sponsorship of the Department of Drama, offers opportunity for study and practice in production on either a credit or non-credit basis. A completely equipped FM Radio Station broadcasting to the Stevens Point area, approved by the Federal Communications Commission, is now broadcasting. This educational broadcast station provides experience in writing, engineering, announcing, directing, and producing radio broadcasts which range in type from recorded music programs and news shows to on-the-scene sports broadcasts and public affairs programs. Television programs are prepared by students and faculty for presentation over commercial television stations located in the area served by the University.

Participation in all phases of radio and television broadcasting is open to all students in the University. Optional credit for such participation is available. Drama 7 and 127—Radio-TV Workshop may be elected by those students intending to participate in broadcast activities.

Student Expenses
(Undergraduate Only)

Tuition and Incidental Fees

Residents of Wisconsin (full-time—12 credits or more)	$119.00
(part-time per credit—11 credits or less)	10.00
Non-residents (full-time—12 credits or more)	351.00
(part-time per credit—11 credits or less)	31.00

Textbook Rental Fees

Full-time	10.00
Part-time per credit (limit $10.00)	1.00
Extension and Saturday classes, per credit	1.00

Student Activity Fees

Full-time	20.50
Part-time, per credit (limit $20.50)	1.75

University Center Fees

Full-time	15.00
Part-time, per credit (limit $15.00)	1.25

Total Fees

Residents, full-time	164.50
Part-time, per credit	14.00
Non-residents, full time	396.50
Part-time, per credit	35.00

The above fees are payable prior to attending classes. A student is not registered until fees are paid. Vocational Rehabilitation, Veterans and

Indian Scholarship students should have the notification of their eligibility sent to the University by August 15 or January 15 in order that arrangements can be made for the student to attend classes.

All fees are subject to change. Fees for graduate and summer sessions are in separate catalogs.

The Student Activity Fee provides for admission to athletic events, forensic, and student entertainment activities; and supports the **Pointer,** the **Iris** and health services. Part-time students are not eligible for the **Iris** or health services.

Refunds

The following statement on refunds applies for tuition, incidental, book rental, activity, and University Center fees.

During the regular session, a refund of 90% will be granted for withdrawal prior to eligibility to start classes, 80% during the first and second weeks of the semester, 60% during the third week and 40% during the fourth week. No refund will be granted after the fourth week.

Refunds on Housing and Dining Service deposits will be granted if requested before July 15 for the first semester, or December 15 for the second semester. After the first day of classes, no refunds will be made for housing except in unusual circumstances. Refunds will be made for Dining Service contracts on a pro rata basis. Applications for refunds are available in the office of the Director of Housing.

The following is the procedure for obtaining refunds of fees or room and board payments:

1. Report to Student Affairs for required interview and Refund Claim Form.

2. Obtain Program Change forms from Registrar's Office.

3. Obtain signatures required for release from courses and various department charges.

4. Return forms required by Registrar and obtain required signature.

5. Return forms to Student Affairs to obtain required signature and establishment of withdrawal date.

Miscellaneous
A Graduation Fee of $8.50 is payable the semester or summer session the student graduates.

In a number of courses, special fees are assessed to take care of laboratory breakage, field trips, etc.

A fee will be assessed in certain Physical Education courses, to cover cost of towel laundering and other items.

A fee of $2.00 will be assessed if it becomes necessary to replace a lost identification card, a student activity card, or a meal ticket. This fee is non-refundable.

A penalty fee of $10.00 in addition to all other fees is charged for late registration. This fee is non-refundable.

Housing and Dining Services
Facilities are available in the residence halls and dining services at the following rates:

Room—$185 per semester per student; $370.00 for the academic year. This includes bed linens and their laundering. Students provide their own pillows, blankets and towels.

Board—$210.00 per semester; $420.00 for the academic year. This provides twenty-one meals per week. All students who live in the residence halls must eat in the university's dining centers. Students who live off-campus may purchase their board at the same rates available to residents of the halls.

The above 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 periods. The rates indicated above are subject to change without notification.

Application
Information and housing application forms are mailed to all students admitted to the university. The housing application should be returned as early as possible. The applications are processed in the order in which they are received. The housing application must be accompanied by a $50.00 room reservation deposit. Notification of cancellation of the room must be submitted to the Director of Housing prior to July 15 for the first semester, or December 15 for the second semester, to obtain a refund. Deposits may be applied only to the next regular session.

Payment

Students may choose from three payment plans for Housing and Dining Services. Plan A is full payment in advance. Plans B and C are installment plans and include a slight charge for handling costs. Payments should be made by the announced due dates as all late payments are subject to a penalty charge of $10.00. If the first payment is not made by the date specified, the rooms may be reallocated.

PAYMENT PROGRAM

	Plan A	Plan B[2]	Plan C[3]
Room Reservation Deposit[1]	$ 50.00	$ 50.00	$ 50.00
August 1	740.00	395.00	200.00
October 31	.....	.....	200.00
January 15	.....	320.00	200.00
March 31	.....	.....	150.00
	$790.00	$795.00	$800.00

[1]Accompanies application for residence hall room.
[2]Plan B includes a charge of $5.00 for the partial payment program.
[3]Plan C includes a charge of $10.00 for the partial payment program.

Financial Aids

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 makes application on the State of Wisconsin freshman application form available from the high school he attends. The form and the College Scholarship Service Parent's Confidential Statement must be mailed as directed.

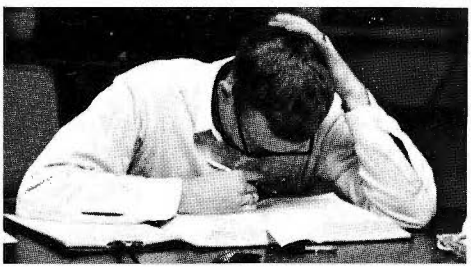
A transfer student obtains the necessary application blank, the Parent's Confidential Statement form, and the Faculty Recommendation form from the Office of Student Financial Aids.

A continuing student in the University may secure his application materials personally from the office of Student Financial Aids.

In all cases, the single application form supplemented by the faculty recommendation form and the Parent's Confidential Statement (the Student's Confidential Statement where deemed advisable) provide the needed data for a decision as to the student's eligibility and the type of assistance to be proposed. A financial aid proposal will be mailed to each recipient outlining the amount and kind of aid he may receive. 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 date 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.

Generally, freshmen applications must be received by March 1 of the year in which they expect to enroll for their first semester. Upperclass application deadlines will be announced on the campus.



Loans, Grants, and Scholarships
The following specific programs may be incorporated into the financial aid proposal, but please keep in mind that all aid proposed by the Financial Aid Office is based on student need only:

State Honor Scholarship: Available only to freshmen, awarded on the basis of high school graduation rank selected by the high school.

State Legislative Grant: Available to freshmen and upperclassmen in limited numbers. The value of each grant is variable depending upon need and academic achievement. The minimum grant shall be $100 for an academic year. Grants are not automatically renewable.

United States Educational Opportunity Grant: Restricted to exceptionally needy students. It may be continued for four full years, and the award may range from $200 to $1,000 per year, not to exceed one-half of the student's entire need.

National Defense Student Loans: Up to $1,500 for undergraduate students, up to $2,500 for graduate students (both dependent upon need). Loan is interest free until leaving school, interest then is charged at 3% during the repayment period which may not exceed 10 years and 9 months. A forgiveness feature applies to those entering teaching, and for special duty such as teaching the handicapped or teaching in economically deprived areas. Students may be eligible for additional loans on a year to year basis.

Wisconsin State Loan: Up to $1,000 for undergraduate students, up to $1,500 for graduate students. Available to Wisconsin residents only, based upon need. Interest at the rate of 6% (may change to 7%) is

charged during the repayment period. Repayment begins nine months after school attendance ceases.

Guaranteed Loan Program: Another source of financial aid for students not eligible on a need basis is through local banks, savings and loan associations, and credit unions. The federal government provides a guarantee of repayment and an interest subsidy if the borrower's parents show adjusted gross income below the $15,000 level.

Emergency Loans: An emergency loan fund is maintained for short term, urgent credit needs. Any student desiring such a loan must see the professional staff of the Student Financial Aids Office.

Employment

Opportunities for employment on campus are available through the:

1. Regular student assistance program.

2. College Work-Study Program.

3. College food service facilities.

Any student applying for general financial assistance may be referred to one of these programs for a portion of his support. A student seeking no aid other than employment may complete an "application for employment" in the Financial Aids Office. Such students will be considered for on-campus jobs as well as being referred to commnuity employers. A current file of community job vacancies is maintained in the Financial Aids Office. The Office of Student Financial Aids works closely with the local office of Wisconsin State Employment Service to expand this program.

Special Services

The staff of the Student Financial Aids Office is available for students and parents who desire consultation on financial aid programs. Appointments may be made by phone or personal visit to the office. Parent information services can be provided for high schools in the area.

The university maintains a student faculty account to accommodate agencies and organizations desiring to pay stipends to a student through the university. Any such agency is welcome to avail itself of this service.

The University Foundation is authorized to receive tax deductible contributions for private scholarship programs.

Admission

Entrance Requirements for Freshmen — Wisconsin Residents
To qualify for admission to Wisconsin State University-Stevens Point, a person must meet the following requirements which have been prescribed by the Board of Regents:

1. He must have graduated from a legally established public or private high school with 16 units of work. (A unit represents a norm of five class periods per week in one field of study for a school year of 36 weeks.)

2. He must be recommended for admission by the high school principal or counselor.

3. He must present a minimum of nine units of credit from the following fields: English and speech, foreign language, natural science, history and social science, and mathematics. (A minimum of three years of English is recommended.)

4. He must have completed the ACT (American College Test) or SAT (Scholastic Aptitude Test, CEEB). ACT is preferred; SAT will be accepted in lieu of ACT if applicant has previously taken SAT.

5. A Wisconsin resident student ranking at or above the 25th percentile (upper three-fourths) of his high school graduating class will be admitted in good standing if requirements 1, 2, 3 and 4 are satisfied.

6. A Wisconsin resident student ranking below the 25th percentile (lower one-fourth) of his high school graduating class will be admitted on probation if requirements 1, 2, 3 and 4 are satisfied and if his ACT composite standard score is 17 or above.

7. A Wisconsin resident who has satisfied requirements 1, 2, 3 and 4, but does not qualify on the basis of requirements 5 or 6, will be

required to enroll at a summer session at any Wisconsin State University for the purpose of demonstrating his scholastic ability on the university level. If he carries 6 credits of work or more and earns an over-all grade point average of 1.5 (C = 2.0 on a 4 point basis) or better, he will be admitted on probation to any Wisconsin State University for any semester or quarter.

Entrance Requirements for Freshmen — Non-Residents

The following requirements are necessary for non-residents:

1. A non-resident student ranking at or above the 60th percentile of his high school graduating class will be admitted in good standing if Wisconsin resident requirements 1, 2, 3 and 4 are satisfied.

2. A non-resident student ranking below the 60th percentile of his high school graduating class will be admitted (in good standing if on or above the 25th percentile and on probation if below the 25th percentile) if Wisconsin resident requirements 1, 2, 3 and 4 are satisfied and if the ACT composite standard score is 18 or above.

3. A non-resident student who satisfies Wisconsin resident requirements 1, 2, 3 and 4, but who does not qualify on the basis of non-resident requirements 1 or 2, will be required to attend a Summer Session to attempt to qualify for admission on the same conditions as a Wisconsin resident student, as given in requirement 7 (Wisconsin resident).

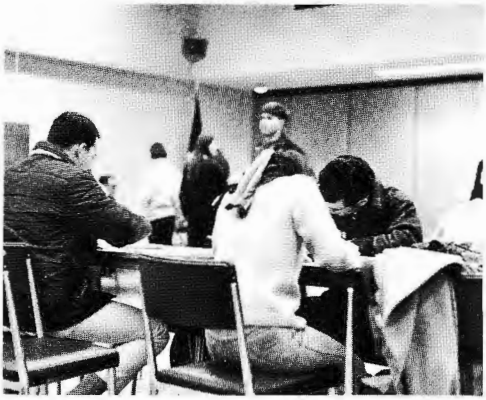
Application for Admission

A high school graduate who wants to enroll in the university should write to the Director of Admissions for an application blank, 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 blank 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 1st of his senior year in high school. He should follow the procedure outlined in the preceding paragraph.

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). He should also request that a transcript of his credits be sent to the Director of Admissions from each college he has previously attended. In addition, a personal



reference form must be requested from Stevens Point, completed by the Dean of the institution last attended, and returned to the Director of Admissions at Stevens Point. Credits with a grade of C or better, earned at an accredited institution of college level, may be counted toward graduation provided they fit the general pattern of the curriculum selected by the student.

No more than 64 credits will be accepted from any Branch Campus in the State Universities System or from any other two-year college.

Credits transferred from County Teachers Colleges are applicable only in the Elementary Education curriculum.

A student who has attended another college and whose overall average is below "C" may be admitted on probation if a similar record at Stevens Point would have entitled him to continue in college on probation.

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.

Readmission 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. In addition, a personal reference form must be requested from Stevens Point, completed by the Dean of the institution last attended, and returned to the Director of Admissions at Stevens Point.

Readmission of a student who has been suspended.
See page 48.

Entrance as an Adult Special Student
Students who are service veterans or are 21 years of age or older may be admitted by giving satisfactory evidence of scholastic ability on the university level.

Persons intending to enroll in this category should follow applicable procedures for enrolling outlined above, and must also write the Director of Admissions outlining their educational background.

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.

Academic Work

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.

Academic Honors

The faculty has established a system of academic honors to recognize the achievement of students with high grade point averages. Grade point averages are computed each semester with highest honors designated for students with a grade point average of 3.75 or above, high honors for those earning 3.50 to 3.74 and honors for those achieving 3.20 to 3.49. Letters announcing these honors are sent to parents each semester. A student must complete at least 13 semester hours of work in order to be eligible for recognition.

A terminal recognition honors list is computed on the same grade point basis as above. Computations for the commencement program are based on all grades which count toward graduation earned prior to the final semester. Computation of terminal honors for the transcript includes the final semester. Transfer credits are included in the terminal honors computation except when earned in a nonaccredited situation.

Academic Advising

Once enrolled in this university, a student is assigned to an adviser who will help him arrange his academic program along lines suggested by the student. Each semester the adviser will hold a conference with the student on the progress of his academic work and his course of study for the next semester. The student may make appointments at other times with his adviser to discuss choice of major, requirements for a degree, vocational plans, academic difficulties, or any matter affecting the student's academic life.

The services of the Counseling Center 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

Both majors and minors are offered in the following fields: American civilization, art, art education, biology, chemistry, economics, English, forestry, French, general science, geography, German, history, home economics, Latin American studies, mathematics, music, music education (instrumental and vocal), music literature, philosophy, women's physical education, physics, political science, psychology, resource management (conservation), Russian and East Central European studies, social science, sociology, Spanish, and speech.

Majors are offered in business administration, business education, chemical technology (pulp and paper), deaf education, elementary education, food and nutrition, home economics education, medical technology, music (applied areas), social science (broadfield), speech and drama education, speech pathology and audiology, and wildlife.

Minors are offered in comparative literature, drama (with dance option), library science, outdoor education, men's physical education, public administration, and Russian. There is also a curriculum in military science as part of a voluntary Army ROTC program.

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. The student's dean may permit up to 17 semester hours, plus one semester hour of physical education when required. The committee of Academic Deans considers appeals to take loads in excess of these amounts, but permission to do so is granted only in unusual cases and only to students whose academic records warrant the exceptions.

Veterans under Public Law 550 are expected by the Veterans Administration to carry 14 semester hours to qualify for full benefits.

Students claiming Social Security benefits are required to carry at least 12 semester hours.

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.

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 extension credit indicated in the section on extension courses.

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.

Department Acceptance of Major Candidates
In curricula in which a major field of study is required, a student must apply to the major department for acceptance as a major candidate by the time he has earned 56 credits (exclusive of required physical education) toward graduation. The department will notify the student in writing whether he meets the departmental standards for acceptance for major candidacy.

A student may be discontinued as a major candidate only if he is notified in writing that the decision has been made. 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 or prior to his 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 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.

Grading System

Semester 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:

Grade	Points per Semester Hour
A (excellent)	4
B (good)	3
C (satisfactory)	2
D (poor)	1
F (failure)	0

These additional designations are used: **S** indicates that the work in a continuation course is satisfactory, and that the grade for (both portions of) the course will be assigned when the entire course is completed.

W (Withdrawn) indicates that a course was dropped after the end of the second week of classes but prior to the end of the ninth week of classes. Courses dropped before the end of the second week of classes do not appear on the student's record. (Not included in calculating the grade point average.)

WP (Withdrawn passing) indicates that a course was dropped after the end of the ninth week of classes, while the student was doing passing work. (See last two paragraphs under "Change of Registration.") (Not included in calculating the grade point average.)

WF (Withdrawn failing) indicates that a course was dropped after the end of the ninth week of classes, while the student was doing failing work. (Included in calculating the grade point average.)

P (Pass) and **N** (No-Pass). See the following section.

Inc (Incomplete—not included in calculating the grade point average) 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. (See statement on "Incompletes.")

The Grade Point Average (GPA) is computed by dividing the number of points earned by the number of semester hours elected. In computing the grade point average, "WF" is treated as an "F." The designations "S," "W," "WP," "P," "N," and "Inc." are not included in the computa-

tion of the grade point average. The maximum average is 4.00; the minimum is 0.00. The grade point average is used in determining eligibility for honors, admission to divisions, and membership in a number of campus organizations, when scholastic achievement is one of the criteria. It represents the general quality of a student's work.

Credits transferred from accredited institutions for courses in which grades of "C" or better were earned may count toward graduation, but such grades and credits are not used in the computation of the cumulative grade point average.

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

Pass—No Pass Grading Program

The Pass - No Pass (P-N) grading program provides greater opportunities for the student to secure a broader, more liberal academic experience than is usually possible under the traditional grading program. It permits a student to take courses from a personally and intellectually oriented motive, without the pressure to secure and maintain a grade point average. It tends to encourage the student to take a course outside his major, where his prerequisite knowledge would not be adequate to sustain a high letter grade. Such a program permits the student to experience learning for its own sake.

1. The P-N program applies only to undergraduate courses, and is not open to freshmen or to students on academic probation. P stands for credit granted; N stands for no credit granted.

2. The student's grade point average will be calculated only from grades in the ABCDF program.

3. No more than twenty credits of P-N, other than required Physical Education, will be counted toward degree requirements. No more than two courses in the major and no more than one course in the minor may be taken on a P-N basis.

4. The student is limited to one course per semester, other than required Physical Education, under the P-N option. He must indicate his choice of the option during the registration period; a change either to or from the P-N option will not be permitted after the close of the registration period.

5. The time-table will indicate which courses are available under the P-N option.

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. The instructor will indicate on the grade report what work must be completed in order for the student to receive credit and will also indicate the approximate grade at the time the work became incomplete.

An "Incomplete" must be removed during the first six weeks of the next semester or it automatically becomes a failure. An extension of this time limit may be granted by the instructor, in which case he will file a written statement to this effect with the registrar.

Audit
A student may audit a course only if the instructor consents and if no laboratory or performance skills are involved. Auditors may not recite or take examinations, but are expected to attend with reasonable regularity. Audited courses carry no degree credit; do not count in determining minimum or maximum credits; and cannot be converted to credit after the sixth day of classes. The student is limited to a total credit and audit load of one course beyond the normal maximum credit load. A course which has been audited may not be repeated at a later date for credit, nor may it be converted to a credit basis at a later time. No exceptions to these regulations are permitted except in unusual circumstances and with the permission of the Dean of the College in which the student is registered. Only students who are regularly enrolled in the university may audit a class. No auditors will be permitted in a class with limited enrollment. The student's record will show "audit" for such courses if the instructor certifies by such a grade that the prescribed conditions have been met.

Repetition of Courses
Courses in which the student receives a grade of "F" may be repeated on the approval of the adviser. Courses in which the student receives a grade of "D" may not be repeated unless prior authorization to do so is granted by the Dean of the college in which the student is enrolled.

When a course initially complete at this university is repeated, at this university (not at another college or university), only the credit and grade earned in the latter attempt will be figured in the grade point average.

A student who is repeating a course under the prescribed conditions must fill out a special "Course Repeat" form which is available during the registration process.

Classification

A student is classified according to the number of credits he has earned before the beginning of the term for which he is registering and which are creditable toward a degree, according to the following schedule:

Number of credits	Classification	Number of credits	Classification
0-18	1st sem. freshman	60-73	1st sem. junior
19-29	2nd sem. freshman	74-89	2nd sem. junior
30-43	1st sem. sophomore	90-103	1st sem. senior
44-59	2nd sem. sophomore	104 & over	2nd sem. senior

Credits in general physical education and credits transferred from other institutions will be included in determining classification.

Academic Status

A student's academic status is determined by the **minimum acceptable standards** which are defined as follows:

Total credits earned	Required cumulative grade point average
1 - 17	1.60
18 - 43	1.80
44 and over	2.00

Students whose cumulative grade point average is at or above the minimum acceptable standard will **NOT** be on probation.

I. Probation.

A. Students whose cumulative grade point average is below the minimum acceptable standard will be on probation.

B. Students may be placed on probation for any of the following additional reasons:

1. A freshman may be admitted on probation. See the statement under "Entrance Requirements for Freshmen."

2. A student who has attended another college or university and whose overall average is below "C" may be admitted on probation if a similar record at this university would have entitled him to continue in the university on probation.

3. Any transfer student admitted to the university who was on probation at the time of his withdrawal from the previous institution attended, or who was suspended from that institution,

is automatically placed on probation, and the probationary regulations of this university apply thereafter.

4. A student who has been readmitted after being suspended for academic reasons is placed on probation.

A student who is on probation must meet the minimum acceptable standard at the end of one probationary semester or he will be suspended. (See II, C, 2, below for exception.) However, a new freshman who enters on probation will be allowed two consecutive semesters on probation. (See II, A, below for exception.)

A semester is defined for this purpose as a term (other than a summer session) in which the student is enrolled for seven or more semester hours. For students carrying less than seven credits, two such terms shall be considered equivalent to one semester.

II. Suspension.

A student will be suspended for any one of the following reasons:

A. A student registered as a first-semester freshman will be suspended if his grade point average is less than 0.75 at the end of the semester.

B. Any student other than a first-semester freshman will be suspended at the end of any semester in which his grade point average is less than 1.00 and his cumulative grade point average is less than the minimum acceptable standard.

C. A student who is on probation must meet the minimum acceptable standard at the end of the probationary semester or he will be suspended, except that:

1. A new freshman* who enters on probation and who earns a grade point average of at least 0.75 in his first semester will be allowed two consecutive semesters on probation.

2. A student who has been readmitted after having been suspended and who earns a grade point average of at least 2.00 in his first probationary semester will be allowed a second consecutive probationary semester.

*A **new freshman** is one who has not earned any grades (A-F) at this institution, or at any institution from which credits are acceptable; however, a student whose first grades (A-F) are earned in a summer session at this university is considered a new freshman in the first semester of the following academic year.

Readmission

All requests for readmission, including those by prospective transfer students who have been suspended by another college or university, will be made to the Director of Admissions. The following conditions apply:

A. A student who has been suspended may not be readmitted before the lapse of at least one semester, unless it can be satisfactorily demonstrated that his academic suspension was due to factors beyond his control and that the cause(s) has (have) been removed.

B. Similarly, each time a student has been suspended, readmitted, and again does not earn the required grade point average, he will not be eligible for readmission until a period of two years has elapsed, unless it can be satisfactorily demonstrated that his academic suspension was due to factors beyond his control and that the cause(s) has (have) been removed.

C. A student whose request for readmission is denied may appeal the decision to a faculty committee assigned such responsibilities of appeal. He should address the appeal to the Director of Admissions who will forward it to the committee. In making its decision, the committee considers the conditions mentioned above.

D. A prospective transfer student:

1. who has been suspended for academic reasons from another Wisconsin State University may not enroll at this university until he would be eligible for readmission at the university which suspended him.

2. from any other college or university (than another WSU) who was suspended by the institution he last attended is generally ineligible for admission to this university until he has been out of college for at least one semester following his first suspension or for two years following his second or any subsequent suspension. Each case is considered on its merits.

A student may attend a summer session, after which his academic status will be reevaluated at his request.

Change of Registration

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 "order

of required studies" is not violated). No student may register for a course after the sixth day of classes. All changes must follow the procedure established by the registrar's office.

(Note to advisers: If a change of program during the first two weeks involves a change of sections in the same course, the change will be handled by the chairman of the department offering the course. It need not be signed by the adviser, the director, or the dean. All other changes during the first two weeks of classes will be handled by the adviser and the chairmen of the departments concerned.)

Changes of program after the second week and through the ninth week of classes may be permitted by the student's adviser after consultation with the instructor if the reasons are compelling. (Note that courses may not be added after the sixth day of classes.) After the ninth week of a semester, decisions on such changes will be made by the dean of the college in which the student is enrolled, after advice by the student's adviser and instructor.

A course dropped after the ninth week will receive a "WP" if the student is doing passing work; otherwise a "WF" will be assigned. Repeated occurrence of "W" and "WP" will be cause for the review of the student's record by the committee of Academic Deans, and possible dismissal of the student from the university. Student initiated drops are not permitted during the last five weeks of the semester.

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.

Withdrawal from the University

A student who finds it necessary to leave the university at any time during the semester must receive permission from the Dean of the College in which he is enrolled, and must comply with the procedure established by the registrar's office. Grades will be assigned according to the schedule outlined in the section concerning Change of Registration, except that during the final five weeks of the semester an "Inc" may be assigned at the discretion of the instructor. Withdrawals during the final five weeks of the semester will be permitted only for reasons clearly beyond the control of the student.

A student who voluntarily leaves the university at any time without completing the prescribed withdrawal procedures will be considered as still registered and will receive an "F" in each course in which he is 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.

Reports
At the end of each semester, a report of the student's grades is mailed to him at his home address.

At the end of the first eight weeks of each semester, faculty members notify any freshman student whose work is failing or near failing at that time.

Transcripts
A student may order transcripts of his record by addressing a request to the Record Office. The first transcript is furnished without charge. Subsequent transcripts are furnished for $1.00 each, except that when more than one is ordered at a time the charge is $1.00 for the first one and twenty-five cents for each additional copy.

Requests for information concerning activities and scholastic records of students or former students of Wisconsin State University-Stevens Point will not be honored without an authorization for release of the information signed by the individual whose record is involved; except that the university cooperates with high schools in follow-up studies of their graduates.

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 any sys-

tem 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 Associate Dean of Students.

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 Associate Dean 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 each student in the group, and send a copy to the Office of Student Affairs. 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.

Graduation
It is mandatory for all candidates for graduation, who are registered as regular students, to participate in the commencement exercises.

Residence Requirements
At least 21 of the last 30 credits earned toward a degree must be earned in residence at this university. Nine of the 30 credits may be taken in other schools or by extension, but only upon prior approval of each course by the student's division director or dean.

To be eligible for a degree a student must have earned at least 30 of the total credits required for the degree in residence at this university.

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

1. thirty 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.

Extension and Saturday Classes

The university offers evening extension classes in some fifteen to twenty cities in central Wisconsin. A good number of evening and Saturday morning courses are offered on-campus which provide residence credit. 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.

For a three credit off-campus course, classes meet once a week for seventeen weeks, and each meeting lasts two and one-half hours. Fees are $14.00 per credit (subject to change). On-campus evening and Saturday classes are listed in the regular time table. Fees for on-campus classes are the same as above.

Fees must be paid in full not later than the second meeting of the class. Books are included in the fee payment. Credits will be filed in the Registrar's Office at Stevens Point, but will be transferred to other colleges on request. Before enrolling, a student should obtain assurance that credit earned can be applied to the curriculum he is following at the college to which he wishes the credit transferred.

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

1. Degree candidates must be formally admitted as a student to Wisconsin State University-Stevens Point. Application forms must be processed through the Admissions Office.

2. Students who are employed as teachers shall be granted no more than four credits total for extension, correspondence, evening and Saturday courses in any one semester.

3. Extension, correspondence, evening and Saturday courses shall be counted as part of a student's study load if he is regularly enrolled in a college or university during the semester the courses are taken.

4. Up to 32 credits of extension (off-campus) or correspondence work from this and other colleges or universities may be counted toward a degree. Some students may not be able to take all 32 of these credits because of the residence requirement. Not more than nine credits in the senior year may be earned in extension (off-campus) or correspondence courses. (Note that Saturday morning on-campus classes are not counted as extension courses.)

5. Prior approval of each extension or Saturday course to be taken during the senior year must be obtained from the student's dean.

For information on courses currently being offered in extension, evening and Saturday classes, write the Office of the Director of Extended Services.

Summer Sessions

The university operates an eight-week summer session each year. A variety of courses is available both at the undergraduate and the graduate levels. High school graduates, not otherwise eligible for admission to this 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 Wisconsin State Universities sponsor and direct various summer session camp programs. Credits earned are acceptable at any of the State Universities, but students should consult their adviser regarding the applicability of credits toward requirements in their curriculum.

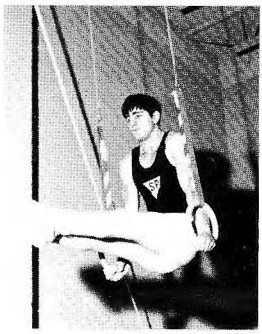
A summer school bulletin may be secured by writing to the Director of Summer Sessions.

Graduate Study

Master of Science and Master of Science in Teaching programs are available in specific areas. Late afternoon, evening and Saturday classes are offered.

The member institutions of the Wisconsin State University system work cooperatively to facilitate credit transfer and to provide opportunities within reasonable access to all students of the State.

A limited number of graduate assistantships are available to qualified students who participate in the academic-year program on a full-time basis. A graduate bulletin may be secured by writing to the Dean of the Graduate College.



College of Applied Arts and Science

Paul A. Yambert, Dean

Wisconsin State University-Stevens Point offers curricula in Applied Arts and Science leading to the Bachelor of Science degree. Each of these curricula is designed to further the student's progress toward the long range goals set forth elsewhere in this catalog. In addition, the objectives of the College of Applied Arts and Science include the following:

1. Preparation for non-professional fields requiring a college degree.
2. Preparation for technical and professional work in specialized fields, such as conservation, home economics, medical technology, business education, physical education, and speech pathology and audiology.
3. Pre-professional training.
4. Preparation for graduate study.
5. Graduate study in home economics and speech pathology and audiology.

Students intending to major in business education, natural resource management, forestry, soils, water, wildlife, home economics, medical technology**, physical education*, nursing**, or speech pathology and audiology will enroll as freshmen in the College of Applied Arts and Science.

Students majoring in any of the above fields who are also candidates for secondary school teaching, will enroll as freshmen in the College of Applied Arts and Science and apply before their junior year for admission to the College of Education.

Advisers

Each student in Applied Arts and Science is assigned to an adviser from the faculty of the department in which he intends to major. The

*Currently only a major for women is offered in this field.
**This major must currently be completed following transfer to another institution.

adviser will assist him in selecting courses, improving his abilities, making vocational plans, and other aspects of university life.

During the student's junior and senior years, his program must be approved by the chairman of his major department(s).

A department may refuse to accept a student for major study if the student's general record is not satisfactory to that department. The department may refuse to approve continued registration as a major if his subsequent achievement falls below the standards set by the department, and these standards are published as a part of the departmental description in this catalog.

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 Applied Arts 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."

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

In contrast to previous policy, the dean's signature is not required on senior study list cards unless the load or the courses deviate from the norm.

Faculty cognizance of the importance of the fine and liberal arts in complementing the applied arts has strongly influenced the **curriculum for the Bachelor of Science Degree** in the College of Applied Arts and Science.

I. English and Speech:

A. English 1-2, 3-4, or 5-6; or 7-8 (open to English majors only), 6 credits.

B. Speech 1, 2 credits.

II. American History, 6 credits.

III. One of the following:

A. Foreign Language, 8 credits.
This requirement may be satisfied by two acceptable units of high school work completed in one language. An acceptable unit is one year's work with a grade of C or better.

The equivalent of one year of college work in foreign language must be completed before credit will count toward graduation.

B. Mathematics, 4 credits.
This requirement may be satisfied by two and one-half acceptable units of high school mathematics. An acceptable unit is one year of work with a grade of C or better, excluding "general mathematics."

IV. Social Studies, 9 credits.

Work in social studies must include courses in at least two of the following fields: cultural geography, economics, history (in addition to II above), political science, psychology, sociology, Natural Resources 190 (not open to natural resources majors or minors).

V. Natural Science. Select A or B.

A. One semester in each of the following groups:
Group I—Biology 1 or Geography 1.
Group II—Chemistry 1 or 3, or Physics 1.

B. A continuous year course in one science:
1. Biology 3 and 4;
2. Chemistry 5-6; or 7-8;
3. Geography 2 and 3;
4. Geology 4 and 5;
5. Physics 3-4; or 10, 11, 12.

Note: Students intending to major or minor in one of the sciences should consult the requirements for that major or minor before beginning a science course.

VI. Humanities, 9 credits, selected so as to include course in at least two of the following groups:

A. History and appreciation of art, dance, music, theater; history of art, dance, music, theater.

B. Literature. Any literature course may be used to satisfy this requirement; except that if Introduction to Literature, or 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), coloquium.

VII. Physical Education, 4 credits. Physical Education 1 or 3 will be taken in the Freshman year, 2 or 4 in the Sophomore year, 11 in the Junior year, and 12 in the Senior year.

Students are required to register according to the above instructions. Students who believe they have medical or other grounds for exception must present their claims to the Physical Education Department after registration.

VIII. Major study and approved electives to total 120 credits in addition to required Physical Education (Total: 124). (As an elective, no less than 8 credits in a foreign language may be applied toward a degree.) A minimum of 40 credits must be selected from courses numbered 100 or above. No degree will be granted unless the candidate receives the approval of the faculty during his senior semester.

Restrictions

A. The following courses are the only ones in the College of Education which may be applied toward a degree in the College of Applied Arts and Science:
Education 1, 113, 121, 131, 132, 135, 136, 183, 184, 191.

B. Students majoring in Food and Nutrition in the College of Applied Arts and Science are restricted to one of the following courses:
Education 105Q, 111, or 112.

College of Education

Burdette W. Eagon, Dean

The three major divisions of the College are the Education Department, John M. Bernd, Chairman; the Office of Student Teaching, John J. Gach, Director; and the University Laboratory School, John C. Pearson, Director.

Wisconsin State University-Stevens Point offers curricula in the College of Education leading to the bachelor of science degree. The curricula include:

I. Elementary Education
   A. Kindergarten-Primary
   B. Primary
   C. Intermediate and Upper-Elementary

II. Secondary Education

Graduate work is offered in the College of Education. Students may specialize in elementary education, biology, English, history, home economics, music, social studies, or speech. Graduate students in education may specialize in reading. (See Graduate Catalog.)

Tentative Admission

All freshmen who plan to enter professional education fill out a tentative **"declaration of intention"** at the time of enrollment. Students who were graduated in the upper half of their class in high school may be granted tentative admission to one of the elementary curricula.

Students should file **formal application for admission** to any education curricula during the sophomore year. Students may take education courses only after they have been formally admitted to the College of Education.

Requirements for Admission

A. A personal-social report from the Office of Student Affairs.

B. Recommendations from major and minor departments.

C. An overall grade point average of 2.25, based on credits earned at this university.

D. A satisfactory health report from the University Health Service.

E. A satisfactory hearing and speech proficiency report (to be taken at time of application).

F. Such examinations as may be prescribed.

G. Completion of official admission forms.

Procedure for Admission

A. Students seeking admission to a professional education curriculum must apply in the office of the Dean of the College of Education.

B. Students who have satisfactorily completed the requirements will be notified of admission.

C. Students who are denied admission to the teacher education program for other than academic reasons may file a special petition with the Teacher Education Review Committee for further consideration.

D. Students who are admitted report to the office of the chairman of the Education Department to be assigned to an adviser.

Transfer Students

Students transferring to this university from another institution apply for admission to the office of the Director of Admissions.

1. Transfer students must file transcripts with the Director of Admissions well in advance of enrollment. Their credits will be evaluated and planning sheets will be prepared.

2. Transfer students usually will not be allowed formal admission into the College of Education during the first semester at this university. The students may be allowed conditional admission; the decision will be based on the students' previous grade point average.

Bachelor of Science Degree
(College of Education)

I. English and Speech:
   A. English 1-2, 3-4, or 5-6; or 7-8 (open to English majors only), 6 credits.

B. Speech 1, 2 credits.

II. American History, 6 credits.

III. One of the following:

A. Foreign Language, 8 credits.
This requirement may be satisfied by two acceptable units of high school work completed in one language. An acceptable unit is one year's work with a grade of C or better.

The equivalent of one year of college work in foreign language must be completed before credit will count toward graduation.

B. Mathematics, 4 credits.
This requirement may be satisfied by two and one-half acceptable units of high school mathematics. An acceptable unit is one year of work with a grade of C or better, excluding "general mathematics." Students in elementary education fulfill this requirement by taking Mathematics 115.

IV. Social Studies, 9 credits.
Work in social studies must include courses in at least two of the the following fields: cultural geography, economics, history (in addition to II, above), political science, psychology (Psychology 11 is a prerequisite for Education 112 and is required of all students in education programs), sociology, Natural Resources 190. (In elementary education curricula, a total of 21 credits is required.)

V. Science

A. Elementary Education: 13-15 credits. All students take 3 of the 4 sciences: Biology 1, Geography 1, Chemistry 1 or 3, Physics 1.

B. Secondary Education: 10 credits. Select 1 or 2.

1. One semester in each of the following:
Group I—Biology 1 or Geography 1
Group II—Chemistry 1 or 3, or Physics 1.

2. A continuous year course in one science:
a. Biology 3 and 4;
b. Chemistry 5-6 or 7-8;
c. Geography 2 and 3;
d. Geology 4 and 5;
e. Physics 3-4; or 10, 11, 12.

Note: Students intending to major or minor in one of the sciences should consult the requirements for that major or minor before beginning a science course.

VI. Humanities, 9 credits, selected so as to include courses in at least two of the following groups:

A. History and appreciation of art, dance, music, theatre; history of art, dance, music, theatre.

B. Literature. Any literature course may be used to satisfy this requirement; except that if Introduction to Literature, or 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.

VII. Physical Education, 4 credits. Physical Education 1 or 3 will be taken in the Freshman year, 2 or 4 in the Sophomore year, 11 in the Junior year, and 12 in the Senior year. Students in elementary education take either Physical Education 11 or 12, but they must also take either Physical Education 31 or 32. Students are required to register according to the above instructions. Those who believe they have medical or other grounds for exemption must present their claims to the Physical Education Department after registration.

VIII. A. Division requirements, including majors and minors specified.

B. Approved electives to total at least 120 credits, in addition to required physical education.

C. A minimum of 40 credits must be in courses numbered 100 or above.

Elementary Education

In addition to such required courses as shown for the Bachelor of Science degree in the College of Education, certain other courses are required in each curriculum. These are indicated in the following study programs.

Primary Curricula

The Primary Curriculum prepares teachers for grades one through three. Upon successfully completing the required courses students will qualify for certification.

Students who wish to elect certification for teaching kindergarten may choose the Kindergarten-Primary curriculum. They then elect Education 101 and do part of their student teaching in kindergarten.

Suggested Order of Required Courses:

Freshman	Credits	Sophomore	Credits
Art 1	3	Biology 40	3
Art 2	3	English 11 or 13 or 15	3
Science*	10	English 12 or 14 or 16	3
English 1 or 3 or 5	3	English 21	3
English 2 or 4 or 6	3	Science*	3-5
Music 1	3	History 11	3
Phy. Educ. 1 or 3	1	History 12	3
Speech 1	2-3	Phy. Educ. 2 or 4	1
Electives**		Physical Education 31	2
		Psychology 11	3
		Psychology 13	3
		Electives**	

Junior and Senior	Credits
Education 101	2
Education 102K	4
Education 102L	4
Education 198	13
Geography (cultural or regional)	2-3
Social Studies	6-7
Mathematics 115	4
Music 103	3
Physical Fduc. 11 or 12	1
Electives**	

* A total of 13-15 credits in science is required: three of the four sciences, Biology 1, Geography 1, Chemistry 1 or 3, Physics 1, with two to be taken in the first year.

** If a foreign language is chosen as an elective, it should be taken during the freshman year.

Sufficient electives must be chosen to bring the total number of credits earned to 120, plus the required physical education.

Intermediate and Upper-Elementary Curriculum

The Intermediate and Upper-Elementary curriculum prepares students for teaching positions in grades four through eight in the elementary schools. It also gives the foundation work necessary for later graduate study in the field of Elementary Supervision and Administration. It is recommended that students in this curriculum use some of their elective credits as an area of concentration, or a minor in some field of study if certification for junior high teaching is desired.

Suggested Order of Required Courses:

Freshman	Credits	Sophomore	Credits
Art 1	3	Biology 40	3
Art 2	3	English 11 or 13 or 15	3
Science*	10	English 12 or 14 or 16	3
English 1 or 3 or 5	3	English 23	3
English 2 or 4 or 6	3	Science*	3-5
Music 1	3	History 11	3
Phy. Educ. 1 or 3	1	History 12	3
Speech 1	2-3	Phy. Educ. 2 or 4	1
Electives**		Physical Education 32	2
		Psychology 11	3
		Psychology 13	3

Junior and Senior	Credits
Natural Resources 190	3
Education 103K (jr. yr.)	4
Education 103L (jr. yr.)	4
Education 121	3
Education 131	3
Education 198	10-13
Geography (cultural or regional)	2-3
Social studies	3-4
Mathematics 115	4
Music 103	3
Physical Education 11 or 12	1
Electives**	

* A total of 13-15 credits in science is required: three of the four sciences, Biology 1, Geography 1, Chemistry 1 or 3, Physics 1, with two to be taken in the first year.

** If a foreign language is chosen as an elective, it should be taken during the freshman year.

Sufficient electives must be chosen to bring the total number of credits earned to 120, plus the required physical education.

Four-Year Elementary Education Curriculum For County College Graduates

Graduates of the regular state approved two-year county teachers college course may be tentatively admitted to junior standing in the College of Education upon satisfactory evaluation of their records by the Dean. Students transferring with less than 60 acceptable credits will be placed on probation for one year and must earn a grade point average of 2.25 or higher before filing an application for formal admission. Students may not take education courses until they have been formally admitted into the College of Education.

Required courses:

Chemistry 1 or 3
Physics 1
Education 198 (5 credits)
Speech
Physical Education (2 credits)

Foreign language or Mathematics 115 (may be omitted if two and one-half acceptable units of high school mathematics or two units of foreign language are presented.)
Humanities, 6 credits, selected so as to include courses in at least two of the following groups:

A. Art 191, 192, 193; Music 1, 140, 141; Drama 5
B. Literature (in courses numbered 100 or above).
C. Philosophy 15, 105; colloquium.

Electives to total 62 credits beyond the county teachers college course. (A total of 64 credits is required of those who began their county teachers college work before 1954.)
Since the student must earn 40 credits in courses numbered 100 or above, most electives should be in that category.

Secondary Education

The successful completion of the general education and professional course work required of education students, and the recommendation of the major and minor departments enable a graduating senior to apply for an initial three-year license to teach in Wisconsin, in accordance with the certification requirements set up by the State Department of Public Instruction.

The secondary curriculum prepares students for teaching positions in grades seven through twelve in the junior and/or senior high schools. Three plans or options may be selected:

Plan I. One college or university 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 requirements required for certification.

Majors which may be chosen include art, biology, business education, chemistry, drama, economics, English, French, general science, geography, German, history, home economics, mathematics, music, natural resources management, physics, political science, psychology, social science, sociology, Spanish, speech, speech and drama, speech pathology and audiology, and women's physical education. Students may major in American civilization only if they are also earning a major and minor in two of the other acceptable academic majors, or if they are earning the broad field major in social science.

Minors may be chosen for teacher certification in each of the major fields (except business education, general science, home economics, music, social studies) and in physical education.

Plan II. Two college university approved majors of at least 34 credits. These would be selected from those listed under Plan I.

Plan III. One college or university approved broad-field or compre-

hensive major of at least 54 credits. These are offered in general science, social science, speech pathology and audiology, and women's physical education. (See the appropriate statements in the section "Courses of Instruction.")

Note: Students who major or minor in any of the social sciences (economics, geography, history, political science, and sociology) are required by statute to take Economics 11 or Economics 127. 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 190. Students must take Psychology 11 as a prerequisite for Education 112.

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.

A minimum of twenty credits of professional education courses is required. The sequence of education courses to be followed depends upon the plan selected for student teaching. Please read the following Student Teaching section for an explanation of the various plans.

Plan A — Block	Jun. Year	Educ. 111 and Educ. 105
	Sen. Year	Educ. 112, Educ. 105 and Educ. 198
Plan B — Teaching Center	Jun. Year	Educ. 105 in major and minor field
	Sen. Year	Educ. 111, 112, 198
Plan C — Intern	First Sem. Sr.	Educ. 198 — 10 credits
	Prerequisites:	Educ. 111, 112 and 105 in major and minor area
	Second Sem. Sr.	Educ. 198 — 10 credits
	Prerequisites:	Educ. 111, 112 and 105 in major and minor area

Students are required to take the Techniques in Secondary Education related to their major and minor fields.

Additional professional education courses that may be taken include:

Education 121	Tests and Measurements	3 credits
Education 131	Audio Visual Education	3 credits
Education 135	Safety Education	3 credits
Education 136	Driver Education	3 credits
Education 137	Advanced Driver and Safety Education	3 credits
Education 183	Organization and Administration of Outdoor Education	3 credits

Student Teaching

This final step in the sequence of teacher preparation is of extreme importance since it involves experience in an actual classroom situation. At least ten credits of student teaching (Education 198) are re-

quired 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 the student teachers, members of the university staff, and the administrators and teachers in the cooperating schools.

Admission to Student Teaching

When the prospective student teacher has completed a prescribed portion of the required course work in general education, and in the major and minor fields, and some professional education courses, he may petition to enroll for student teaching.

Requirements:

1. Admission to the College of Education.
2. An overall grade point average of no less than 2.25.
3. A grade point average of 2.25 in the major and minor fields.
4. Recommendation from the student's major and minor department chairmen.
5. Completion of forms from the office of Director of Student Teaching.

The university offers several plans in order to provide realistic student teaching experiences for potential teacher graduates. Each pattern calls for the completion of specific courses of study and it is imperative that each student bear in mind the sequence of courses, etc., in the careful long-range planning of his overall program of teacher preparation.

Elementary Education

Elementary education student teachers will have completed most professional education courses and in the first or second semester of the senior year will enroll in Education 198 (Student Teaching). In the Kindergarten-Primary programs students enroll for 13 credits of student teaching; in the Intermediate-Upper Elementary programs, for 10-13 credits. These credits are usually earned over two grade levels. The typical student teaching program is for a complete semester on a full-day basis. Elementary education students who qualify may choose Plan C, Internship, described in detail in the following section.

Secondary Education

Plan A (Block)

1. The student is enrolled in the "professional semester" or "block" program of student teaching. He will have completed Education 111 and one other course in professional education.

2. During the senior year, preferably during the first semester, the student will take 15 hours of work in professional education.

   A. The first segment of the semester (approximately 7 weeks) is devoted to Educational Psychology (Education 112), and a course in the techniques of teaching. This work is taken on campus. At the end of this period, an evaluation of the student's progress is made and a grade is given for each course.

   B. The remainder of the semester (approximately 10 weeks) is spent in student teaching in an approved cooperating school on a full-time basis. This normally means that the student will actually live in the community and attend faculty meetings, extra-curricular activities, etc. University coordinators will check the progress of the student teacher, and several special seminars will be held on campus to discuss the student teaching experience. At the end of this period the cooperating teacher and the university coordinator will provide an evaluation of the work of the student.

   C. It is the student teacher's responsibility to arrange for his own housing and meals.

   D. The student teacher is required to return to the campus during the final week of the semester to confer with the university instructors and supervisors in order to gain further insight into the actual problems of teaching.

Note: The foregoing is a description of the pattern for students who plan on teaching in high school. However, the procedure, with certain modifications, is similar for those who plan to teach in the elementary schools.

Plan B (Teaching Center)

This particular pattern, introduced only recently in the Wausau area, has been well received by our student teachers and the cooperating school districts. It differs from Plan A in that:

1. The student must have completed a different sequence of course work in professional education prior to the start of this pattern.

2. During either semester of the senior year the student teacher will ordinarily enroll for 16 hours of work in professional education.

   a. The student teaching (Education 198) and the other required courses (Education 111, Principles of Education, and Education 112, Educational Psychology, are taken in a designated geographic area which serves as a "teaching center" for student teachers, cooperating schools, and university personnel.

b. This "teaching center" makes it possible to blend theory and practice throughout the entire semester and affords expanded opportunity for observational and teaching experiences.

c. Plans are being developed to bring about an even more closely articulated program of experimentation and in-service opportunity for both the student teachers and the professional personnel of the school districts participating in the center program.

d. Students who elect this plan are required to live in the teaching center area during the entire semester.

Plan C (Internship)

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 may commence the teacher-internship.

3. The intern is a paid member of a public school staff who spends an entire semester in a school system. During this time the intern is involved in experiences covering the entire range and variety of a teacher's duties, both in and out of the classroom.

4. Other considerations to be kept in mind are as follows:

   a. No on-campus work may be carried during this semester.

   b. A summer workshop is generally required.

   c. The student must apply for a special intern-teaching license which costs $5.00.

   d. The student may be assigned to either the fall or spring semester.

   e. The intern must report for the orientation program that is organized by the cooperating school system.

   f. Inasmuch as only ten credits are earned during the internship semester, all prospective interns are required to attend the university for an extra semester or summer session in order to prevent an overload of course work during any of the regular eight semesters.

Plan D (Non-Block)

1. The student is enrolled in both professional education and other courses on the campus during either morning or afternoon periods.

2. During the other half of the day, he is assigned to student teaching at a school in Stevens Point or in a nearby community*.

*The individual student teacher has the responsibility of arranging for any necessary transportation. In many cases, several students travel together to reduce expenses.

Note: It is quite possible that this particular program will be phased out in the near future in favor of the more comprehensive plans described above. Therefore, it would be wise to arrange your long-range planning to allow enrollment in one of the other plans. However, if it is not possible to do so, you must obtain the special permission of the Director of the Office of Student Teaching to enroll for Plan D.

Sequence of Courses to be Taken for the Various Plans of Student Teaching

	Plan A (Block)		**Plan B (Teaching Center)**	
Prerequisite courses in professional education	Educ. 111 and an additional course in professional education		Educ. 104, 105, or 106 (technique courses in one's teaching field)	
Courses to be taken during the student teaching semester	Educ. 105	2 cr.	Educ. 111	3 cr.
	Educ. 112	3 cr.	Educ. 112	3 cr.
	Educ. 198	10 cr.	Educ. 198	10 cr.
		15 cr.		16 cr.
	Plan C (Internship)		**Plan D (Non-Block)**	
Prerequisite courses in professional education	Educ. 111, Educ. 112, and Educ. 105 (the technique course in one's teaching field) and an additional course in professional education		Educ. 111	3 cr.
			Educ. 105	2 cr.

Courses to be taken during the student teaching semester:

Education 198	*10 credits	Education 105	2 credits
		Education 112	3 credits
		Education 198	10 credits
			15

Twenty credits in education are required.

*Please note that teacher-interns are required to complete work during a summer session or extra semester in addition to the regular four year program of teacher preparation.

College of Fine Arts

William J. Hanford, Dean

History and Purpose
In 1963 the University placed the departments of art, speech and drama, and music in a new administrative unit: the School of Fine Arts, now the College of Fine Arts. This was the first such school in the State University System. In 1964 the University adopted a formal statement of long-range educational goals, stated in terms of the individual student's development. These two historical facts have shaped the philosophy of fine arts education at Stevens Point: the fine arts are identified as a major concern of education, and the fine arts are taught for humanistic purposes.

Scope
In the course of human history, six of the fine arts have emerged as major arts: art, drama, dance, music, architecture, and literature. The College of Fine Arts offers instruction in the first four of these. Offerings in art, drama, and music are well developed. Offerings in dance are in the beginning stages of development. Offerings in pre-architecture are currently available covering the first two years, preparing the student to transfer to the School of Architecture of his choice. The sixth of the fine arts, literature, is offered in various departments of the College of Letters and Science. As a policy guideline, this classification of major arts in history serves to define the principal artistic fields in the College of Fine Arts.

Program
The fine arts program comprises two types of educational offerings: (a) courses of study; (b) productions of art exhibits, concerts, plays, etc. In many productions, students may enroll for credit, as they do in courses. In all productions, students may participate without credit. Many courses and productions are open to participation by all students enrolled in the University. Attendance at all productions is open to all students enrolled in the University as well as to all residents of central

Wisconsin. A number of courses and productions are offered off-campus in communities of central Wisconsin. 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 citizens of central Wisconsin.

Registration Procedures
Any entering student should enroll in the College of Fine Arts if he is interested in:

1. a general undergraduate education with one of the above majors as an integrating study;
2. a public school teaching career in one of the above majors;
3. graduate study in one of the above majors, with college teaching as a possible career;
4. professional practice in one of the above majors.

At registration a student will be assigned an academic adviser to assist him in choosing his courses, making up his schedules, meeting curricular requirements, etc.

A student must have the approval of the department in which he wishes to major. If he does not show satisfactory progress, the department may ask him to change his major field.

Degrees
The Bachelor of Science degree is offered for students majoring in art and in drama. The Bachelor of Arts degree is also offered for students majoring in drama. The Bachelor of Music degree is offered for students majoring in music.

Majors and Minors
Majors and minors acceptable in the College of Fine Arts are: art, drama, music, music literature.

Teacher Education
Those students who choose public school teaching as a career should apply for transfer from the College of Fine Arts to the College of Education during the second semester of the sophomore year. Transfer students above the sophomore level will be required to spend one semester in residence before applying to the College of Education.

Bachelor of Science Degree Requirements
In the College of Fine Arts the general requirements for the Bachelor of Science degree are the same as in the College of Letters and Science. Both eight credits of foreign language and four credits of mathe-

matics are required. These requirements may be satisfied by acceptable high school work in these fields. For details, see the section on the College of Letters and Science. In the College of Education, the general requirements for the Bachelor of Science degree include either eight credits of foreign language or four credits of mathematics. These requirements may be satisfied by acceptable high school work in these fields. For details, see the section on the College of Education.

Bachelor of Arts Degree Requirements
In the College of Fine Arts the general requirements for the Bachelor of Arts degree are the same as in the College of Letters and Science. Twenty-four credits of foreign language are required. This requirement may be partially satisfied by acceptable high school work in foreign language. For details, see the section on the College of Letters and Science.

Bachelor of Music Degree
The requirements for the Bachelor of Music degree are stated in a later section of this catalog headed "Courses of Instruction" under Music.

Other Course Requirements
Major course requirements are listed under each department heading in this catalog. Elective courses may be chosen from any field outside of the major one. For education course requirements, see "College of Education." In all degree programs, at least 40 credit hours must be earned in courses numbered "100" or above.

Physical Facilities
A new Fine Arts building has been authorized by the legislature. Construction began in 1968 and is scheduled for completion in 1970. Major features include an art gallery, recital hall, theater, and materials center. Also included will be 19 art studios, 20 music studios, 45 music practice rooms, and five large rehearsal rooms variously equipped for band and orchestra, choir, theater, opera, and dance. The building will be located centrally near the Classroom Center, Science Building and Learning Resources Center.

Department of Communications
Late in the spring semester in 1969, a Department of Communications was established within the College of Fine Arts. This administrative and academic re-structuring came too late for the necessary course designation changes to be made in this catalog.

The new Department of Communications offers all courses formerly offered under **Speech** (page 175), **Journalism** (page 132) and **Radio-TV-Film** (page 105). All inquiries should be directed to Mr. A. J. Croft, Chairman of the Department of Communications.

College of Letters and Science

Warren G. Jenkins, Dean

Wisconsin State University-Stevens Point offers courses in Letters and Science leading to the Bachelor of Arts and Bachelor of Science degrees.

The aims of the general courses for the Bachelor of Arts and the Bachelor of Science degrees are: (a) to provide the student with a sound education in social studies, sciences, languages, and humanities which will prepare him to be a well informed citizen qualified for responsibilities and leadership in a democratic society; and (b) to provide the basic training for professional, technical, and graduate studies. Most professional and technical fields require education beyond the four-year level and an increasing number of non-professional fields require a college degree. Employers wish to secure the services of persons with sound educational backgrounds. It is the purpose of the Letters and Science curricula to provide this education.

Students admitted to the university who have not been accepted for professional training as teachers may enroll in Letters and Science and follow the program for a Bachelor of Arts or a Bachelor of Science degree. This includes students who plan a four-year general course and those preparing for professional, and graduate studies, except for students who are planning majors which are offered in the College of Applied Arts and Science or the College of Fine Arts.

Advisers

Each student in Letters and Science is assigned to a member of the faculty who will act as his adviser until he is accepted by a department for major study. The adviser will assist him in adjusting to his academic work and in the improvement of his abilities.

In order that a student may come to understand better the interweaving relationships between various fields of knowledge, it is required

that he plan, with his adviser, programs by means of which such relationships may be effectively realized.

Not later than the beginning of his junior year each student remaining in Letters and Science must have selected the area of his major study as discussed in the section, "Major Study." At that time and thereafter, the chairman of the student's major department will assign an adviser who will assist the student and sign 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."

Students who have failed to maintain an average of 15 academic credits per semester should plan to attend summer school or an extra semester. However, the dean of the College of Letters and Science has delegated to academic advisers the responsibility for approval of 17 academic credits for such students when the following two conditions exist: (1) if the 17 credits will, within one semester, result in an average of 15 academic credits, and (2) **if the adviser is convinced that a load of 17 academic credits will be in the best interest of the student.** This approval is not granted for students who have an average of over 15 academic credits; such cases require the approval of the dean of the College of Letters and Science.

Degrees

The Curriculum for the Bachelor of Arts—General Course

I. English Language and Literature, 12 credits as follows:
   A. English 1-2, 3-4, or 5-6; or 7-8 (open to English majors only).
   B. English 11-12 or English 13-14.

II. Foreign Language, 24 credits (including 4 credits in conversation and composition courses beyond the first-year level) in one language, or 28 credits in two languages, or 30 credits in three. No less than 8 credits in a single language will be accepted; and a minimum of 14 credits must be offered in one. High school work with grades C or better will be accepted for this requirement at the rate of 4 college credits for each high school unit up to a total

of 6 units or 24 credits. However, a minimum of 8 college credits is required.

III. Special Humanities Requirements, 10 credits within the following range of studies; art history, history of music, literary criticism, philosophy of art, colloquium. Students majoring in fields other than language and literature may satisfy this requirement with 10 credits in any literature course (or courses) numbered 100 or above.

IV. History, 12 credits, including 6 credits of American History.

V. Social Studies, 6 credits, selected from the following: Natural Resources 190, cultural geography; economics; philosophy (logic excluded); political science; psychology; sociology.

VI. Natural Science and Mathematics or Logic; one year of laboratory science, and one year of mathematics or one year of logic.

VII. Physical Education, 4 credits. Physical Education 1 or 3 will be taken in the Freshman year, 2 or 4 in the Sophomore year, 11 in the Junior year, and 12 in the Senior year.

Students are required to register according to the above instructions. Students who believe they have medical or other grounds for exception must present their claims to the Physical Education Department after registration.

VIII. Major study and approved electives to total 120 credits in addition to the required physical education (Total: 124). A minimum of 40 credits must be selected from courses numbered 100 or above.

It should be noted that no degree will be granted unless the candidate receives the approval of the faculty during his senior semester.

Order of Required Studies, Bachelor of Arts—General Course

Each student is expected to complete in the first two years the required courses listed in the curriculum above (except in numbers VII and VIII), although some exceptions may be granted by the student's adviser and the dean. In any case the following shall be completed:

1. All requirements in English composition and literature and foreign language (unless more than two years are required).
2. Social studies, 6 credits.
3. Natural science and mathematics or logic (contact the dean for approved math course sequences).
4. History, 6 credits.
5. By the end of the sophomore year the student must select a major study and plan his course with his major adviser and dean.

The Curriculum for the Bachelor of Science—General Course

I. English and Speech:

A. English 1-2, 3-4, or 5-6; or 7-8 (open to English majors only), 6 credits.

B. Speech 1, 2 credits.

II. American History, 6 credits.

III. Foreign Language, 8 credits.
This requirement may be satisfied by two acceptable units of high school work completed in one language. An acceptable unit is one year's work with a grade of C or better.

The equivalent of one year of college work must be completed before credit will count toward graduation.

IV. Mathematics, 4 credits.
This requirement may be satisfied by two and one-half acceptable units of high school mathematics. An acceptable unit is one year of work with a grade of C or better, excluding "general mathematics."

V. Social Studies, 9 credits.
Work in social studies must include courses in at least two of the following fields: cultural geography, economics, history (in addition to II above), political science, psychology, sociology, Natural Resources 190.

VI. Natural Science. Select A or B.

A. One semester in each of the following groups:
Group I — Biology 1 or Geography 1;
Group II — Chemistry 1 or 3, or Physics 1.

B. A continuous year course in one science:
1. Biology 3 and 4;
2. Chemistry 5-6; or 7-8;
3. Geography 2 and 3;
4. Geology 4 and 5;
5. Physics 3-4; or 10, 11, 12.

Note: Students intending to major or minor in one of the sciences should consult the requirements for that major or minor before beginning a science course.

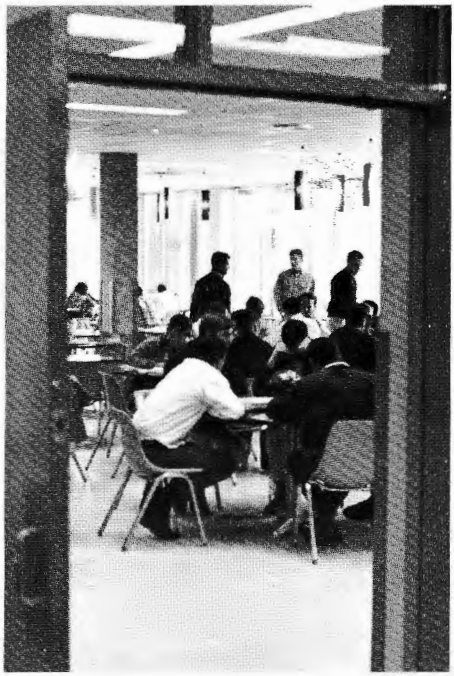
VII. Humanities, 9 credits, selected so as to include courses in at least two of the following groups:

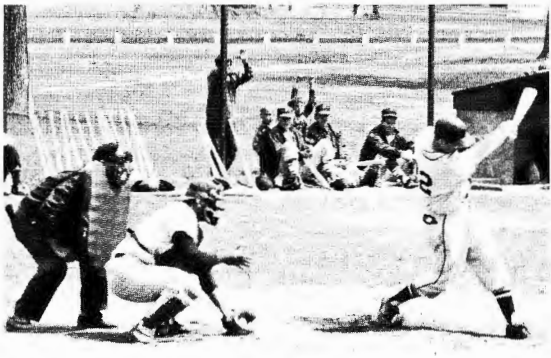
A. History and appreciation of art, dance, music, theater; history of art, dance, music, theater.

B. Literature. Any literature course may be used to satisfy this requirement; except that if Introduction to Literature, or 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.

VIII. Physical Education, 4 credits. Physical Education 1 or 3 will be taken in the Freshman year, 2 or 4 in the Sophomore year, 11 in the Junior year, and 12 in the Senior year.





Students are required to register according to the above instructions. Students who believe they have medical or other grounds for exception must present their claims to the Physical Education Department after registration.

IX. Major study and approved electives to total 120 credits in addition to the required physical education (Total: 124). (As an elective, no less than 8 credits in a foreign language may be applied toward a degree.) A minimum of 40 credits must be selected from courses numbered 100 or above.

It should be noted that no degree will be granted unless the candidate receives the approval of the faculty during his senior semester.

Order of Required Studies, Bachelor of Science—General Course

Each student is expected to complete in the first two years most of the required courses listed in the curriculum above, except numbers VIII and IX. In any case, unless exception is granted by the Dean of Letters and Science, the following shall be completed:

1. During the freshman year,
   (a) English 1-2, 3-4, 5-6; 7-8 (open to English majors only), 6 credits.
   (b) Laboratory science (see VI).
2. During the sophomore year,
   (a) History 11 and 12, 6 credits.
3. At some time during the freshman and sophomore years,
   (a) Speech 1, 2 credits.
   (b) Social studies or humanities, 3 credits.
   (c) Mathematics or foreign language, and deficiency under items III and IV in the Bachelor of Science curriculum.

A Typical Freshman Course

First Semester	Credits
Freshman English	3
Science* (Laboratory)	5
Physical Education 1 or 3	1
Electives	5-7
	14-16

Second Semester	Credits
Freshman English	3
Science* (Laboratory)	5
Electives	6-8
	14-16

Freshman Studies, Letters and Science

1. **English.**
   First year students must register for English 1-2, 3-4, or 5-6; or 7-8 (open to English majors only). Three credits each.
2. **Mathematics.**
   Mathematics 1 or 2; 5-6, or 7, or 9. Four credits each.
3. **Science.**
   See Section VI under Bachelor of Science (above).
   Chemistry 10 (four credits) is open to freshmen who have the prerequisite.
4. **Foreign Language.** (No less than eight credits in a language may be applied toward a degree.)
   French 1-2. Four credits each.
   German 1-2. Four credits each.

Russian 1-2. Four credits each.
Spanish 1-2. Four credits each.
Students with prior training in languages will be assigned to advanced classes as determined by their skills.

5. **Social Studies.**
Any course in history, political science, and sociology provided the prerequisites are met.
Geography 10. Three credits. Not open to students who register for Geography 1, 2, or 3.

6. **Other Courses.**
Any course numbered 1 through 10 in the section, "Courses of Instruction," except where there are limitations referred to in the section, "Restrictions."

7. Freshmen with an excellent academic record may, with the permission of the dean, elect one course with a prerequisite of sophomore standing.

*To be selected from the science courses listed in section VI.

Major Study

Before the beginning of the junior year (that is, when he has completed 56 academic credits, exclusive of required physical education, acceptable for graduation) each student in Letters and Science must select a major study with the written approval of the chairman of that major department. A department may refuse to accept or continue a student for major study in that department if the student's general academic record does not satisfy regulations established by the University. See statement headed "Department Acceptance of Major Candidates" in section of catalog entitled, **Academic Work.**

Acceptable majors in the College of Letters and Science are: American civilization, 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, 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, Spanish, and speech.

Minor Study

The Letters and Science degree does not require minor studies, but any minor listed in the catalog may be completed. However, only 20 credits in minors from departments not in the College of Letters and Science may be applied to complete the required 120 credits. (See the "Twenty Credit Rule," below.)

Restrictions

Courses from the following areas may not be applied toward degrees in the College of Letters and Science, with certain exceptions listed below: accounting, business, business education, education, engineering graphics, home economics, library science, military science, music, natural resources, physical education.

Exceptions to above restrictions:

1. Any course from the above departments may be applied toward a degree in L & S if it is listed in the curriculum for the degree or if it is used as a part of a major or minor acceptable for a degree in L & S.

2. Any course from the above departments may be applied toward a degree in L & S if the course is cross listed in a department other than those listed above.

3. The following courses in Business may be applied toward degrees in L & S: Business 61, 130, 140, 150, 170, 180.

4. **Twenty Credit Rule:**

   a. Students may apply courses from the above areas toward degrees in the College of Letters and Science, but not more than a total of 20 credits from all these areas, and not more than a total of 6 credits in restricted areas during any one semester.

   b. The following courses in Education are the only ones which may be applied under the twenty-credit rule: Education 113, 121, 131, 132, 135, 136, and 137.

Classification
See "Classification" in section on Academic Work.

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. He will plan his studies within the curriculum of either the Bachelor of Arts or the Bachelor of Science degree and will select the specific courses recommended for his profession.

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 pre-professional studies; hence each student must be acquainted with the requirements of the school which he plans to enter, and must 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.

Dentistry
Students preparing to enter dental college should take a course similar to the pre-medical course. Generally speaking, dental schools strongly recommend, but do not specifically require, foreign language. The ruling of the Dental Educational Council of America calls for at least six semester hours of the following: English, biology, physics, and inorganic chemistry, and most schools require a year of organic chemistry. However, some require a minimum of three semester hours. Sufficient additional credits to total at least sixty hours must be submitted as preparation for the customary three years in leading schools of dentistry.

Education
A student who is considering education, and who may transfer to the College of Education in this university, should follow the general requirements for the Bachelor of Science degree. He should include the specific requirements of that college and of the major 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 Dean of the College 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, in research, often necessitate foreign language ability. From one to four years' preparation for these professions (depending upon the specialization) may be completed at Stevens Point. Advisers direct the student's selection of studies, which should lead toward the Bachelor of Science degree.

Journalism
The two years of pre-journalism studies follow the general requirements of the Letters and Science degrees with special attention given

to courses in English, social studies, and foreign language.

Law
Pre-legal studies require three to four years. A good record made while completing the general and major requirements for a Bachelor of Arts or a Bachelor of Science degree will qualify a candidate for admission to Law School. Law Schools recommend, however, that candidates select majors in social studies (history, economics, political science, American institutions) and gain some understanding of American economic, political, and constitutional history as well as an acquaintance with philosophy and social psychology.

Medicine
A student who wishes to prepare for a career in medicine registers as a candidate for a B.S. or B.A. degree. He may major in any field and integrate the pre-medical requirements with the requirements for a degree in his major field.

Completion of pre-medical requirements does not insure admission to a medical school. This is very competitive. Most medical schools make their selection on the basis of three criteria: at least a B average, the recommendation of instructors, and a satisfactory score on a medical aptitude test.

Most medical schools require that the Medical Aptitude Test be taken before admission. This test is administered annually and may be taken in the sophomore or junior year. Few candidates are accepted with less than four years of undergraduate work.

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

Social Administration
Students interested in this field should register in Letters and Science and enroll in a major in either economics, history, political science, sociology, or social science.

Social Work and Anthropology
Courses in social work and anthropology are offered within the sociology curriculum. Students interested in either of these fields should register in Letters and Science and enroll in a sociology major.

Other Pre-professional Studies
Students planning to enter other fields will be assigned to advisers who will guide them in their studies.

Courses of Instruction

Course Numbers

Courses numbered 1-99 are primarily for freshmen and sophomores.

Courses numbered 1-10 are generally open to freshmen and other students who have the prerequisites stated in the course descriptions. If no prerequisite is stated, the course is open without restriction to all students.

Courses numbered 11-99 require sophomore standing, or some other prerequisite. They are open to all students who have the prerequisites stated in the course descriptions.

Courses numbered 100-199 are open only to juniors and seniors who have the prerequisites stated in the course descriptions. In cases of extreme urgency, the Deans of the Colleges may give permission for sophomores to register for these courses. The permission must be given in writing before the student registers for the course(s).

Any student who registers for courses contrary to the above regulations will not receive credit for such courses.

To receive a degree, the student must earn at least 40 credits in courses numbered 100-199.

Pass - No Pass Grading Program
Certain undergraduate courses (or certain sections of undergraduate courses) are available on a "Pass - No Pass" basis. Such courses or sections are designated in the Time Table. For the regulations governing this program see the section of the catalog entitled "Academic Work."

American Civilization

Mr. Mickelson, adviser.

A. A major in American Civilization consists of 45 credits divided among the four major areas: American History; American Literature; American Fine Arts, Speech, and Philosophy; and American Social Sciences. It is intended to provide a view of American Civilization as a recognizable entity—enabling the student to better understand his own culture and its relation to other cultures. A major in American Civilization can be earned in either the College of Education or the College of Letters and Science.

1. All students majoring in American Civilization are required to take 28-31 credits of basic studies in American Life. These required courses are the following: Art 91 (History of American Art); English 13-14 (American Literature); Geography 26 (North America); History 11-12 (United States History); Music 2 (American Music); Political Science 1 (American National Government); Sociology 100 (The American Community); and American Civilization 100 (American Life) 3-6 credits.

2. All students majoring in American Civilization are also required to take nine credits of courses numbered 100 or above in a civilization other than that of the United States: courses from an approved list covering the history, literature, fine arts, philosophy, and social science of England, France, Germany, Russia, etc.

3. To complete the required 45 credits for a major, sufficient additional credits of electives in courses numbered 100 or above should be selected from an approved list of courses in the four areas of American Civilization.

4. Students in the Secondary Education curriculum majoring in American Civilization are required to make either of the following applications of Plans 1 and 3 as listed under the requirements for work 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 Civilization.
   Plan 3 — Students earning the broad field major in social science can at the same time earn a major in American Civilization.

5. Students in the College of Letters and Science who are earning majors and minors in participating, or non-participating fields can earn an inter-departmental major or minor in American Civilization.

B. A minor in American Civilization consists of American Civilization 100 (3 credit limit) and an additional 23 credits chosen from an approved list of courses in the four areas of American Civilization, the additional courses to be selected from at least three of the four areas within a minimum of nine credits in the courses numbered 100 or above.

American Civilization 1. American Personality and the Creative Arts. Three credits. An 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 Civilization, demonstrating methods and philosophy of study.

American Civilization 100. American Life. Three credits. The integrating course in American Civilization for juniors and seniors, emphasizing an interdisciplinary study of American life in terms of concentration on a specific theme, person, or period, such as individualism, Frank Lloyd Wright, or the 1920's. A sub-title will be added to the title each time the course is offered. The course may be repeated any number of times but the same title cannot be repeated.

Art

Mr. Runke, chairman; Mr. Ben-Zvi, Mr. Cody, Mr. Fabiano, Miss Garvey, Mr. Hagen, Mr. Halverson, Mr. Hanford, Mr. Keats, Mr. Kwiatkowski, Mr. Rutherford, Mr. Sandmann, Mr. Schneider, Mr. David Smith.

A. A major in Art consists of 54 credits, including Art 1, 2, 3, 21, 31, 32, 41, 51, 61, 71, 92, 93, and 190. In the College of Education, both Education 104M and 105X are required. A minor is **not** required with a 54 credit major.

B. A minor in Art consists of 22 credits including:

1. Art 1, 2, and 3;
2. Two of these: Art 21, 31, 32;
3. Two of these: Art 41, 51, 61, or 71;
4. Art 92 or 93 or 191.

In certain cases, substitutions may be permitted by the chairman of the department.

A fee is charged for some studio courses to cover the cost of materials furnished to the student by the department.

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.

Graduating seniors in Fine Arts or Art Education are required to present a show of original work that meets the satisfaction of the faculty of the Art Department in terms of the presentation and the quality of the work presented. The exhibits must reflect the competencies of the student in representative areas of the Art Department curriculum. Failure to present a satisfactory show becomes the basis for denying the student a degree.

Art 1. Design: 2-dimensional. Three credits. Fundamental design principles in the art process on the 2-dimensional plane, including art structure, color theory, and principles of arrangement, utilizing a variety of materials. Students may not receive credit for both Art 1 and Home Economics 1.

Art 2. Design: 3-dimensional. Three credits. Fundamental design principles in the art process in 3-dimensions, in structure and arrangement, utilizing a variety of materials. Prerequisite: Art 1.

Art 3. Drawing. Three credits. Basic drawing utilizing a variety of subject matter, media, and approaches with emphasis on visual perception and awareness. Prerequisite: Art 2 or concurrent registration.

Art 4. Drawing. Three credits. Advanced problems in drawing emphasizing conceptional development. Prerequisite: Art 3.

Art 6. Layout and Lettering. Two or three credits. Fundamentals of lettering in various alphabets; problems in poster, sign, and advertising layout in a variety of media. Prerequisite: Art 2, or concurrent registration.

Art 21. Printmaking. Three credits. Printmaking in black and white, and color, employing basic graphics media and techniques. Prerequisite: Art 3.

Art 31. Painting: Watercolor. Three credits. Painting in transparent and opaque watercolor. Prerequisite: Art 3.

Art 32. Oil Painting. Three credits. (Formerly Art 131.) Painting techniques in figure, still life, and landscape. Prerequisite: Art 3.

Art 41. Crafts. Three credits. (Formerly Art 5.) Application of design principles in various craft activities. Prerequisite: Art 3.

Art 51. Sculpture. Three credits. (Formerly Art 151.) Introduction to the materials and techniques of sculpture; creation of three-dimensional works by carving, casting, and construction; emphasis on contemporary use of materials and mixed media. Prerequisite: Art 3.

Art 61. Ceramics. Three credits. (Formerly Art 161.) Introduction to the materials and techniques of ceramics; methods of construction of ceramic ware, glazing, firing, and kiln management. Prerequisite: Art 5.

Art 71. Art Metal. Three credits. (Formerly Art 171.) Basic materials and techniques of art metal; problems of design and application in relation to various materials. Prerequisite: Art 5.

Art 92. History of Ancient and Medieval Art. Three credits. (Formerly Art 192.) Historical survey of architecture, sculpture, and painting, including Egypt, Greece, Rome, and Medieval Europe. Prerequisite: Sophomore standing.

Art 93. History of Renaissance and Modern Art. Three credits. (Formerly Art 193.) Historical survey of architecture, sculpture, and painting in the western world from the 15th century to the present. Prerequisite: Sophomore standing.

Art 121. Printmaking. Three credits. (Formerly Art 22.) Advanced problems in the graphics media. Prerequisite: Art 21.

Art 131. Painting: Watercolor. Three credits. (Formerly Art 32.) Advanced problems in watercolor media. Prerequisite: Art 31.

Art 132. Oil Painting. Three credits. Advanced problems in the oil medium and other contemporary media. Prerequisite: Art 32.

Art 141. Crafts. Three credits. Advanced problems of applied design in various craft activities. Prerequisite: Art 41.

Art 142. The Crafts of the American Indians. Two or three credits. A laboratory investigation into the material culture of the Indians of North America with particular emphasis on the traditional crafts of the Woodland Cultures. Laboratory experience in such crafts as weaving, lapidary, basketry, quill embroidery, ceramics, and other media as are available directly from natural resources. Some field trips may be required.

Art 151. Sculpture. Three credits. (Formerly Art 152.) Advanced problems in sculpture including a greater variety of materials and advanced techniques. Prerequisite: Art 51.

Art 161. Ceramics. Three credits. (Formerly Art 162.) Advanced problems and techniques in ceramic art. Prerequisite: Art 61.

Art 171. Art Metal. Three credits. (Formerly Art 172.) Advanced problems in art metal. Prerequisite: Art 71.

Art 190. Seminar. Two credits. Open only to Art majors; research into problems and developments in the field of art.

Art 191. History of the Visual Arts. Three credits. Major periods, styles, artists, and problems of architecture, sculpture, and painting. Not open to Art majors to fulfill Art department art history requirements or to students who have had Art 92 or 93.

Art 192. History of Latin American Art. Two credits. (Formerly Art 92.) Survey of the visual arts of Latin America from prehistoric to contemporary times. Prerequisite: Art 92 or 93 or 191.

Art 193. History of 19th and 20th Century European Painting. Three credits. (Formerly Art 93.) Historical survey of the development of modern European painting. Prerequisite: Art 92 or 93 or 191.

Art 194. History of Painting in the United States. Three credits. Historical survey from the colonial period to the present. Prerequisite: Art 92 or 93 or 191.

Art 195. History of Sculpture in the United States. Two credits. Historical survey of native sculpture, sculptors, and movements in sculpture of the United States from the colonial period to the present. Prerequisite: Art 92 or 93 or 191.

Art 196. History of Modern Architecture. Three credits. Historical survey of the development of modern and American architecture of the 19th and 20th centuries. Prerequisite: Art 92 or 93 or 191.

Art 197. History of Classical Art. Three credits. Historical survey of the visual arts of Greece and Rome with special emphasis on architecture and sculpture. Prerequisite: Art 92 or 93 or 191.

Art 199. Special Work. Upper class students majoring or minoring in Art, may by agreement with the chairman of the Art Department and the appropriate faculty 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.

Astronomy

Mr. Blocher

Astronomy 111. Introduction to Astronomy. Three credits. Descriptive approach to astronomy through study of the solar system, stars, star clusters, nebulas, and galaxies; evening meetings required for observation; use made of telescopes and planetarium.

Bibliography

Mr. Kampenga

Bibliography 51. Introduction to Library Resources. Two credits. Introduction to the use of printed bibliography, designed for the student who wants to learn systematic approach to subject materials and make stronger use of the references and materials of critical search; practice in compilation of bibliographies using approved forms of descriptive bibliography and footnote usage. Prerequisite: Sophomore standing.

Biology

Mr. Thiesfeld, chairman; Mr. Barnes, Mr. Becker, *Mr. Copes, Mr. Epple, Mr. Fechtner, Mr. Freckmann, Mr. Geeseman, Mr. Hall, Mr. Joseph Harris, *Mr. Don Hay, Mr. Heig, Mr. Knopf, Mr. Lobner, Mr. Long, Mr. Pierson, Mr. Searles, Mr. Simpson, Mr. Harry Smith, Mr. Temp, Mr. White, Mr. Whitmire, Mr. Wilde. (*On leave.)

A. **A major in Biology** consists of Biology 3; 4; 24 or 101; 105, 107, 135, or 140; 160, 165, or 170; 190; and sufficient additional credits to total 34. At least 12 credits should be in courses numbered 105 or above, and these should include one advanced plant course and one advanced animal course. One year of college chemistry and at least one semester of college mathematics, Mathematics 5 and 6; or 7; or 9; or 25 are required.

B. **A minor in Biology** consists of Biology 3; 4; 24 or 101; and sufficient additional

credits to total 22. At least four credits should be in courses numbered 105 or above. At least one advanced course should be in the area (animal or plant) opposite to that selected for the physiology course.

Students who have taken Biology 1 may complete a minor by taking Biology 24 or 101; 160 or 165; and other courses specifically approved by the chairman of the department to total 22 credits.

Biology 1. General Biology. Five credits. Biological principles; survey of a wide variety of plant and animal life. Three hours lecture, four hours laboratory per week. Credit for this course cannot be counted for graduation or the major if Biology 3 and 4 (or equivalent) are counted.

Biology 3. Introduction to Plant Biology. Five credits. General biological principles with emphasis on growth, reproduction, structure and functions of plants; morphological studies of typical plants. Three hours lecture, four hours laboratory per week.

Biology 4. Introduction to Animal Biology. Five credits. Anatomy, physiology, adaptation, and classification of animals; morphology and anatomy of various types of animals. Three hours lecture, three hours laboratory per week. Additional two-hour test sections four times during the semester.

Biology 9. Nature Study. Two credits. General relationships of plant and animal life (to mankind) with special attention to nature study teaching and its correlation in the elementary grades.

Biology 18. Trees and Shrubs. Three credits. Identification of the woody plants, native and cultivated, in summer and winter conditions; their use in landscaping and wildlife plantings and methods of vegetative propagation. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 3.

Biology 24. Animal Physiology. Four credits. A general course dealing with body functions. Three hours lecture, three hours laboratory per week. Prerequisite: Biology 4; or Biology 1 and Chemistry 1.

Biology 35. Ornithology. Three credits. Identification, life histories, and habits of birds, with emphasis on local species. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Sophomore standing.

Biology 40. Personal and Community Health. Three credits. Health practices and problems in the fields of personal and community health. Prerequisite: Sophomore standing.

Biology 101. Plant Physiology. Four credits. Plant growth and the chemical and physical processes associated with growth and reproduction. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 3, and one year of college chemistry.

Biology 105. Plant Morphology. Four credits. Form and structure of plants and plant parts, both vegetative and reproductive. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 3.

Biology 107. Plant Anatomy. Four credits. Study of the internal structures of vascular plants, with special emphasis on development, function, and evolutionary history. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 1 or 3.

Biology 110. General Bacteriology. Four credits. Introduction to morphology, physiology, classification, and cultivation of bacteria, yeasts, and molds, with consideration of applied phases of bacteriology. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 1, 3, or 4. Preparation in chemistry is highly desirable.

Biology 115. Plant Pathology. Three credits. Causes, symptoms, spread, and control of plant diseases. Two hours lecture, two hours laboratory per week. Prerequisite: Biology 3.

Biology 120. Plant Taxonomy. Three credits. Collecting, classification, and phylogenic considerations, with emphasis on seed plants. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 3.

Biology 124. Aquatic Plants. Three credits. General survey, including ecology, classification, and economic importance of local species of fresh-water algae, aquatic mosses, ferns, and angio-sperms. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 3.

Biology 125. Natural History of Vertebrates. Four credits. Life histories and classification of midwestern vertebrates. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 1 or 4.

Biology 127. Ichthyology. Four credits. Classification and natural history of fishes, with emphasis on food, game, and forage fishes found in Wisconsin. Two hours lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 4.

Biology 128. Herpetology. Three credits. The biology of reptiles and amphibians, including research methods and identification of species found in North America. Two hours lecture, three hours laboratory per week. Prerequisite: Biology 1 or 4.

Biology 129. Mammalogy. Three credits. Taxonomy, zoogeography, life history and ecology of mammals with field work. Two hours lecture, two hours laboratory per week. Nominal pro-rata charge for field trip expenses.

Biology 130. General Entomology. Four credits. Structure, classification, and natural history of insects, with practice in collecting, mounting, and identification. Two hours lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 4.

Biology 133. Invertebrate Zoology. Four credits. Structure, function, classification, and life history of each of the major groups of invertebrate animals (exclusive of the insects and parasitic invertebrates). Two hours lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 4.

Biology 135. Embryology. Four credits. Early embryology of vertebrates and the development of organ systems. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 4.

Biology 140. Comparative Vertebrate Anatomy. Four credits. Structure and evolutionary relationships of vertebrates; basic similarities and progressive changes in animals as they increase in complexity from aquatic to land forms. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 4.

Biology 141. Limnology. Three credits. Same as Wildlife 141. Physical, chemical and biological phenomena of freshwater communities. Two hours lecture, two hours laboratory per week. Prerequisite: Biology 165.

Biology 145. Animal Parasitology. Four credits. Structure, classification, and life histories of animal parasites. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 1 or 4.

Biology 147. Animal Behavior. Three credits. 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 hours lecture, three

hours laboratory per week; individual term project. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 4.

Biology 155. Field Zoology. Three credits. Field trips; collection, preparation, and identification of local animals. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1 or 4.

Biology 156. Field Biology. Three credits. Field trips; collection, preparation, and identification of local plants and animals. One hour lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Not to be counted as credit if Biology 120 and/or Biology 155 are also taken. Prerequisite: Biology 1, or Biology 3 and 4.

Biology 157. Organic Evolution. Three credits. Origin and evolution of the Bios. Prerequisite: Biology 1, or Biology 3 and 4.

Biology 160. Heredity and Eugenics. Three credits. General principles of heredity and variation in plants and animals, with emphasis on human inheritance.

Biology 165. Ecology. Three credits. Physical and biotic interrelationships of plants and animals in their environment. Two hours lecture, three hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisite: Biology 1; or Biology 3 and 4.

Biology 167. Problems in Quantitative Biology. Two credits. Selected problems in quantitative biology and independent projects involving analysis of data obtained in student's field of interest. One hour lecture, three hours laboratory per week. Prerequisites: Biology 3 and 4; Mathematics 9 recommended.

Biology 170. Biological Technique. Four credits. Preparation of plant and animal tissues, organs, and entire organisms for microscopic and macroscopic study. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 1; or Biology 3 and 4.

Biology 183. Cell Biology. Four credits. The 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 hours lecture, four hours laboratory per week. Nominal pro-rata charge for field trip expenses. Prerequisites: Biology 3, 4, one year of college chemistry.

Biology 190. Seminar. One credit. Studies and discussions of biological problems. Required of all Biology majors during the senior year.

Biology 199. Special Work. One or two credits. Upper class students majoring or minoring in Biology may, with the consent of the chairman of the Biology Department, arrange for special research projects and be allowed one or two credits for the satisfactory completion of them.

Business Administration

Courses in Business are taught by members of the Economics and Business Department, which also administers the major in Business Administration.

A major in Business Administration consists of (a) 47 credits in Business and Economics, and (b) 7 credits of required collateral courses. A student completing this major will at the same time fulfill the requirements for an Economics minor.

A. The 47 credits in Business and Economics shall include:
   1. 41 credits as follows: Business 11, 12, 130, 140 or Economics 146, and Business 170 or 180; Economics 11, 12, 105, 122 or Psychology 17, Economics 124 or 156, 130, 133, and 137.

2. Six credits from the following: Business 61, 120, 150; Economics 181.
B. The required collateral courses are English 30 and Mathematics 10.

A minimum grade point average of 2.00 in courses taken within the major is a requirement for acceptance of the student as a major at the start of his junior year. The minimum grade point average 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 for department approval of the major for graduation. The department chairman may allow exceptions to this standard on a conditional basis.

Business 11. Elements of Accounting. Four credits. Fundamentals of business accounting; records, books, accounts, and reports used in commercial and manufacturing firms; variations in accounting for corporations, partnerships, and independent businessmen; elementary income tax. Prerequisite: Sophomore standing.

Business 12. Intermediate Accounting. Four credits. Theories in accounting and the application of alternative accounting procedures with problems illustrating their use. Prerequisite: Business 11.

Business 61. Principles of Insurance. Three credits. For the non-specialist, an introduction to 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. Prerequisite: Economics 11, or consent of instructor.

Business 111. Cost Accounting. Three credits. Principles of accounting for cost in manufacturing enterprises, including overhead costs, job order and process cost systems, standard cost procedures, and distribution of cost principles and procedures. Prerequisite: Business 12 with grade of C or better, or consent of instructor.

Business 112. Advanced Accounting. Three credits. Advanced and specialized accounting applications; office and branch office accounting, consolidations and fiduciaries. Prerequisite: Business 12 with grade of C or better, or consent of instructor.

Business 120. Data Processing. Three credits. Computer systems and their application to business problems; machine indoctrination, coding, computer logic, programming, and specialized techniques allied with integrated data processing. Prerequisite: Economics 11, or consent of instructor.

Business 130. Marketing. Three credits. An analysis of institutions, functions, and problems in marketing; planning and procedures related to the distribution of goods: costs, price determination, and trends. Prerequisite: Economics 12.

Business 140. Business Law. Three credits. Law of real and personal property, agency, negotiable instruments, and contracts.

Business 150. Investments. Three credits. Construction and management of investment portfolios in order to meet the needs of personal and institutional investors; selection of securities in order to balance income, risk, and capital growth. Prerequisite: Economics 137.

Business 170. Personnel Relations. Three credits. Principles, policies, and practices applicable to personnel problems in dealing with staffing, training, wages, labor relations, communications. Prerequisite: Economics 11.

Business 180. Principles of Management. Three credits. Theory of management, managerial functions, departmentalization, staffing, direction, planning, and control. Prerequisite: Economics 11.

Business 199. Special Work. Upperclass students majoring in Business Administration may, by agreement with the department 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.

Business Education

Mr. Hille, chairman; *Mrs. Carlson. (*On leave.)

A. The comprehensive major in Business Education consists of:
1. Business Education 1, 2, 3, 4, 104, 105, 106, and 107.
2. Collateral courses including: Business 11, 12, 120, 140, and 180; Economics 11, 12, and 130; Mathematics 10.

B. The comprehensive major in Business Education, Secretarial, consists of the courses listed under A, above, with the following exceptions:
1. Omit Business 11 and 12.
2. Add Business Education 103.
3. Add five credits of Business or Economics courses.

C. The comprehensive major in Business Education, Accounting, consists of the courses listed under A, above, with the following exceptions:
1. Omit Business Education 3, 4, 105.
2. Add Business Education 103.
3. Add eight credits of Business or Economics courses.

D. The major in Business Education, with a minor in a field outside of Business Education, consists of:
1. The courses listed under A, above, with the omission of Business Education 106 and Business 120.
2. Completion of a minor in some other subject.

Business Education 1. Beginning Typewriting. Two credits. The mechanism of the typewriter, its technique of operation and the development of basic skill.

Business Education 2. Advanced Typewriting. Two credits. Development of typewriting proficiency. Prerequisite: Business Education 1, or exemption on proficiency.

Business Education 3. Beginning Shorthand. Four credits. Introduction to shorthand; reading and dictation practice.

Business Education 4. Advanced Shorthand. Four credits. Development of shorthand abilities. Prerequisite: Business Education 3, or exemption on proficiency.

Business Education 103. Production Typewriting. Three credits. Advanced typewriting problems and practices; machine transcription. Prerequisite: Business Education 1 and 2, or equivalent.

Business Education 104. Office Procedures and Machines. Three credits. Principles of office organization, filing systems, business machines. Prerequisite: Business Education 2 and 4, or equivalent.

Business Education 105. Secretarial Techniques. Three credits. Shorthand, typewriting, and English in the transcription of letters; duties, responsibilities, and personal qualities of the secretary; human relations in the business office. Prerequisites: Business Education 2 and 4, or equivalent.

Business Education 106. Secretarial Practices. Three credits. On-the-job work experience and training in industrial situations. Prerequisite: Business Education 2, 104, or equivalent.

Business Education 107. Business Communication. Three credits. Methods and procedures in business letter writing; introduction to report writing.

Business Education 199. Special Work. Upper class students majoring in Business Education may, by agreement with the chairman of the Business Education 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.

Chemical Engineering

Several curricula for students planning to transfer to a course in Chemical Engineering have been approved by the faculty. For information, consult the chairman of the Chemistry Department.

Chemical Technology — Pulp and Paper

See **Chemistry.**

Chemistry

Mr. Trytten, chairman; Mr. Andrews, Mr. Chitharanjan, Mr. Christeck, Mr. Farnsworth, *Mr. Lang, *Mr. Moehlenpah, Mr. Nienke, Mr. Radtke, Mr. Jack Reed, Mr. Rouda, Mr. Schmid, *Mr. Sommers, Mr. Steinpreis, Mr. Thurmaier, Mr. Weaver. (*On leave.)

A. **A major in Chemistry** consists of 38 credits, including Chemistry 7 (or 5 and 6), 8, 21, 22, 24, 125, 131, 132, 134, 135, 139, 191, 192, and one additional course chosen from the following: 110, 140, 141, 142. The prerequisite for Chemistry 8 is either Chemistry 7 or Chemistry 5 and 6. Other prerequisites (for Chemistry 131) include Physics 10, 11, 12, and Mathematics 9, 11, 12.

Students wishing to fulfill the minimum standards for certification by the American Chemical Society should take the chemistry major as outlined above, except that they must take Chemistry 141 and at least five additional credits chosen from Chemistry 140, 142, 199. One advanced course in mathematics or physics may be substituted for one of the chemistry courses in the latter group.

B. **A major in Chemical Technology—Pulp and Paper** consists of:

1. Forty-two credits, including Chemistry 7-8 (or 5-6), 12 (or 21-22-24), 14, 90-91, 101 (or 131-132-134), 103, 104, 105-106, 117-118.
2. Collateral courses including Biology 101; Economics 11; Forestry 128; Mathematics 9, 11, 12, 129; Physics 10, 11, 12, 102; Wildlife 141.

C. **A minor in Chemistry** consists of Chemistry 7 (or 5 and 6), 8, 21, 22, 24, and four additional credits of chemistry selected from the following courses: Chemistry 101, 110, 125, 131, 132. The prerequisite for Chemistry 8 is Chemistry 7 or Chemistry 5 and 6.

Notes: 1. Students may not receive credit for both Chemistry 1 (or 3) and Chemistry 5.

2. Many 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 courses numbered over 100, the course description includes this restriction.

Chemistry 1. Basic Chemistry. Five credits. Introduction to the principles of chemistry; atomic structure, bonding, stoichiometry, and descriptive chemistry involving some of the elements and compounds. Three hours lecture, one hour quiz, three hours laboratory per week. For students with no high school chemistry.

Chemistry 3. Basic Chemistry. Three credits. Fundamental laws and principles of chemistry; a study of atomic structure, bonding, and stoichiometry. Two hours lecture, three hours laboratory per week. Prerequisite: One year of high school chemistry; one year of high school algebra or equivalent, or Mathematics 1. Chemistry 3 may substitute for Chemistry 1 in partial satisfaction of the natural science requirements for a degree.

Chemistry 5-6. Fundamental Chemistry. Each five credits. An introductory lecture and laboratory course for students who desire one year of college chemistry. Fundamental principles, theories, and problems of chemistry, the descriptive chemistry of metallic and non-metallic elements, chemical equilibrium, organic and nuclear chemistry and qualitative analysis. Three hours lecture, one hour quiz, and three hours laboratory per week. Prerequisite: One year of high school algebra or equivalent, or Mathematics 1.

Chemistry 7-8. General and Quantitative Chemistry. Each five credits. Laws and principles of chemistry; atomic structure, formulas, and equations; stoichiometry and chemical equilibria. Laboratory includes some work in gravimetric, volumetric, and colorimetric analysis. Three hours lecture, one hour quiz, and three hours laboratory per week. Prerequisite for Chemistry 7: One year of high school chemistry, or Chemistry 1 or 3 or 5; two years of high school mathematics. High school courses must have a grade of C or better in order to be accepted as prerequisites. Prerequisite for Chemistry 8: Chemistry 7, or Chemistry 5 and 6.

Chemistry 10. Elementary Biochemistry. Four credits. Introduction to the structure and cellular reactions of the primary constituents of living cells; for students with limited preparation in organic chemistry. Three lectures and one three-hour laboratory per week. Prerequisite: Chemistry 1 or 3 or 6 or 8.

Chemistry 12. Survey of Organic Chemistry. Four credits. A systematic survey of the compounds of carbon for students needing only one semester of organic chemistry. Three hours lecture, three hours laboratory per week. Prerequisite: Chemistry 6 or 8.

Chemistry 14. Techniques of Analytical Chemistry. Four credits. Introduction to the methods used in chemical analysis, including instrumental and separation techniques. Two hours lecture, six hours laboratory per week. Prerequisite: Chemistry 6 or 8.

Chemistry 21-22. Organic Chemistry Lectures. Each three credits. A two-semester integrated study of the compounds of carbon. Three lectures per week. Prerequisite: Chemistry 8.

Chemistry 24. Organic Chemistry Laboratory I. Two credits. Basic methods and techniques used in the preparation and analysis of organic compounds. Six hours laboratory per week. Prerequisites: Chemistry 21 and concurrent registration in Chemistry 22.

Chemistry 90-91. Pulp and Paper Mill Experience I, II. No credit. In order to gain practical experience, students in the pulp and paper curriculum are required to work in a pulp or paper mill, **I.** for ten weeks, preferably between their sophomore and junior years; **II.** a second ten week work period with emphasis on a technical aspect of the industry—recommended between the junior and senior years. Prerequisite: Sophomore standing.

Chemistry 101. Brief Course in Physical Chemistry. Four credits. Introduction to physical chemistry with emphasis on the "classical" areas such as kinetics, thermodynamics, and colloidal phenomena. Three hours lecture, three hours laboratory per week. For students wanting only one semester of physical chemistry; not to be counted toward the major in chem-

istry. Prerequisite: Chemistry 12 or 24, 14; Mathematics 12, or concurrent registration; Physics 11, or concurrent registration.

Chemistry 103. Polymer Science. Three credits. The chemistry and physics of polymers, including synthesis, characterization, and mechanical properties. Two hours lecture, three hours laboratory per week. Not to be counted toward the major or minor in chemistry. Prerequisite: Chemistry 12 or 21; Physics 10, or concurrent registration.

Chemistry 104. Wood Chemistry. Three credits. The chemistry of carbohydrates, cellulose, lignin, and wood extractives, and the effect of wood structure on their rates of reaction. Two hours lecture, three hours laboratory per week. Not to be counted toward the major or minor in chemistry. Prerequisite: Chemistry 12 or 24, 14; Forestry 128.

Chemistry 105-106. Science and Technology in Pulp and Paper Making. Four credits each. (Formerly Chemistry 35-36.) Chemical and physical principles related to the manufacture of pulp and paper, with emphasis on chemical stoichiometry, equilibrium, reaction rates, simplified heat and material balances, quantitative chemical analysis, and physical properties and methods of testing. Three hours lecture, three hours laboratory per week; visits to mills. Not to be counted toward a major or minor in chemistry. Prerequisite: Chemistry 8; Physics 3.

Chemistry 110. Biochemistry. Five credits. The chemistry of the components of living cells, and the nature and mechanism of cellular reactions. Three hours lecture, six hours laboratory per week. Prerequisite: Chemistry 22 and 24.

Chemistry 117-118. Fundamentals of Chemical Engineering. Three credits each. Heat and mass balances and transfer, unit operations, and process control. **117.** Three hours lecture per week; **118.** Two hours lecture, three hours laboratory per week. Not to be counted toward a major or minor in chemistry. Prerequisite: Chemistry 101, or 132 and 134; Mathematics 12; Physics 12.

Chemistry 125. Organic Chemistry Laboratory II. Two credits. Extension of Chemistry 24, with more advanced preparative methods and instrumental techniques; introductory qualitative and quantitative analysis of organic compounds. Six hours laboratory per week. Prerequisite: Chemistry 22 and 24.

Chemistry 131-132. Physical Chemistry Lectures. Each three credits. Atomic and molecular structure, thermodynamics, kinetics. Three hours lecture per week. Prerequisite for 131: Chemistry 22 and 191 or concurrent registration therein; Mathematics 12 or 32; Physics 12 or 32; or consent of the instructor. Prerequisite for 132: Chemistry 131 or consent of instructor.

Chemistry 134. Physical Chemistry Laboratory I. Two credits. Laboratory work illustrating the principles of physical chemistry. Six hours laboratory per week. Prerequisite: Chemistry 131 and concurrent registration in Chemistry 132.

Chemistry 135. Physical Chemistry Laboratory II. Two credits. A continuation of Chemistry 134. Six hours laboratory per week. Prerequisite: Chemistry 132 and 134.

Chemistry 139. Analytical Chemistry I. Three credits. Theory and application of complex chemical equilibria and selected methods of analytical separations. One hour lecture, six hours laboratory per week. Prerequisite: Chemistry 132 and 134.

Chemistry 140. Analytical Chemistry II. Four credits. Instrumental methods of analysis including optical, electrical, and radiochemical methods. Two hours lecture, six hours laboratory per week. Prerequisite: Chemistry 132 and 135.

Chemistry 141. Advanced Inorganic Chemistry. Three credits. Nuclear chemistry, atomic and molecular structure, coordination compounds, inorganic reaction mechanisms, nonaqueous solvents, descriptive inorganic chemistry. Three hours lecture per week. Prerequisite: Chemistry 132.

Chemistry 142. Advanced Organic Chemistry. Three credits. Theoretical and physical organic chemistry including reaction mechanisms, quantum mechanical applications, and advanced stereochemistry. Three hours lecture per week. Prerequisite: Chemistry 132.

Chemistry 191. Seminar I. One credit. 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. Prerequisite: Chemistry 22.

Chemistry 192. Seminar II. One credit. Student participation in studies and discussions of current developments in chemistry. Prerequisite: Chemistry 132, 191; and 139 or consent of instructor.

Chemistry 199. Special Work. Seniors majoring in chemistry may, with the consent of the chairman of the chemistry department, 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.

Civil Defense Education

Don W. Heimlich, director; Richard E. Shurbert, associate director; John R. Stevens, coordinator (liaison state civil defense).

A contract between WSU-Stevens Point and the Department of Defense, Office of Civil Defense, enables the university to conduct classes and conferences to accomplish the following:

A. Orient public officials in their civil defense obligations;
B. Develop a cadre of civil defense instructors;
C. Train professional and operational personnel;
D. Conduct seminars for civil defense oriented groups.

These non-credit offerings are presented throughout the State of Wisconsin and are scheduled as the need and interest develops. The specific areas of instruction are as follows:

A. Radiological Monitoring for Instructors—40 class hours.
B. Shelter Management for Instructors—40 class hours.
C. Civil Defense Management—40 class hours.
D. Radiological Defense Officer—40 class hours.
E. Planning and Operations I—Community Shelter Planning—40 class hours.
F. Planning and Operations II—Plans and Planning Procedures—40 class hours.
G. Planning and Operations III—Operations—40 class hours.
H. Emergency Operations Simulation Training—12 class and 4 lab hours.
I. Conferences.

Colloquium

The purpose of the Colloquium is to help students acquaint themselves with great ideas developed by mankind and 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 chairman of the departments, be used to satisfy some of the requirements in the departments of History, Social Science, English, and Philosophy.

Colloquium 101-102-103-104. Colloquium on Important Books. Each two credits. Group reading and discussion of some of the writings of eight different authors from the Greek era to the present. Prerequisite: Consent of the instructor.

Comparative Literature

Courses in Comparative Literature are administered by the English department.

A minor in Comparative Literature consists of the following:

1. Comparative Literature 1-2, 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 199.
4. Additional courses in Comparative Literature to total 21 credits. Of these, at least 12 credits must be from courses listed as Comparative Literature and not cross-listed in any other department.

Comparative Literature 1-2. Masterpieces of the Western World. Each three credits. Selected readings in western literature from Homer to Mann for a general understanding of the artistic achievement of the writers involved and the student's literary heritage. **1.** Homer to Montaigne; **2.** Milton to Mann.

Comparative Literature 31-32. Survey of Dramatic Literature. Each three credits. Same as Drama 13-14. Styles, theories, and literature of world drama; emphasis on the classic heritage; representative plays studied in the context of their times. **31.** Tragedy; **32.** Comedy. Prerequisite: Sophomore standing or consent of instructor.

Comparative Literature 40. Literature of the Bible. Three credits. A critical analysis of the Bible as literature. Prerequisite: Sophomore standing.

Comparative Literature 50. Oriental Literature. Three credits. Selected readings in narrative, dramatic, philosophic, and lyric literature of China, India, and Japan. Prerequisite: Comparative Literature 1-2, or consent of instructor.

Comparative Literature 100. Classical Poetry. Three credits. Selected readings from the poetry of Homer, Sappho, Pindar, Anacreon, Theocritus, Lucretius, Catullus, Vergil, and Horace. Prerequisite: Comparative Literature 1, or consent of instructor.

Comparative Literature 101. Classical Prose. Three credits. Selected readings from the prose of Plato, Aristotle, Livy, Cicero, Plutarch, Tacitus, Petronius, Seutonius, and Marcus Aurelius. Prerequisite: Comparative Literature 1, or consent of instructor.

Comparative Literature 103. Literature of the Renaissance. Three credits. Selections from the works of such writers as Petrarch, Erasmus, Castiglione, Machiavelli, Rabelais, Cellini, Montaigne, and Cervantes. Prerequisite: Comparative Literature 1, or consent of instructor.

Comparative Literature 112. Modern Drama. Two or three credits. Same as English 112. Representative drama of world literature from Ibsen to the present; emphasis on literary structure, form, and theme.

Comparative Literature 116. The Modern Short Story. Three credits. Same as English 116. Representative short stories of world literature with emphasis on literary structure, form, and theme.

Comparative Literature 117. The Novel before 1850. Three credits. Selections from the works of such writers as Cervantes, Lyly, Nash, Voltaire, Goethe, Hoffman, Balzac, Stendahl, Gogol, and Mansoni, with major emphasis on evolution of form and theme. Prerequisite: Comparative Literature 2.

Comparative Literature 118. The Novel since 1850. Three credits. Same as English 118. Representative novels of world literature with emphasis on literary structure, form, and theme.

Comparative Literature 120. Literary Criticism. Two or three credits. Same as English 120. Principles of literary criticism based on the chief ancient and modern theories.

Comparative Literature 121-122. French Literature in Translation. Each three credits. **121.** Selected readings from the seventeenth and eighteenth centuries. **122.** Selected readings from the nineteenth and twentieth centuries. Prerequisite: Comparative Literature 1-2, or consent of instructor.

Comparative Literature 123-124. German Literature in Translation. Each three credits. **123.** Selected readings from the eighteenth to the mid-nineteenth centuries. **124.** Selected readings from the late nineteenth and twentieth centuries. Prerequisite: Comparative literature 1-2 or consent of instructor.

Comparative Literature 127-128. Spanish Literature in Translation. Each three credits. **127.** Selected readings from the Renaissance and neo-classical literature. **128.** Selected readings from the nineteenth and twentieth century literature. Prerequisite: Comparative Literature 1-2 or consent of instructor.

Comparative Literature 145-146. World Literature. Each three credits. Same as English 145-146. **145.** Representative selections of world literature from the earliest times to the seventeenth century. **146.** World literature from the seventeenth century to the present. These courses may be taken independently of one another.

Comparative Literature 147. The New Literature of Africa. Three credits. Same as English 147. The exploration of Afri-

ca's self-expression in the growing body of poetry, fiction, and non-fiction by the contemporary African writers in the context of the African drive for independence and the dynamics of cultural change in Africa.

Comparative Literature 150. Special Problems. Two or three credits. Special focus on one of the following: a non-English writer; a comparative study of two writers; a literary group or genre; a recurrent theme in literature. A subtitle indicating the focus will be added each time the course is offered; at that time any needed foreign language preparation will be indicated. Prerequisite: Comparative Literature 1-2, or consent of instructor; also language preparation by the student for the problem to be handled.

Comparative Literature 199. 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. Prerequisite: Comparative Literature 1-2, or consent of instructor; also language preparation by the student for the work to be handled.

Dance

Mr. Hatch, Mrs. Hatch.

Courses in dance fulfill requirements in drama and physical education. See drama and physical education in "Courses of Instruction."

Dance 1. History and Appreciation of Dance. Three credits. Cultural history of dance, theory, and philosophy of dance, and laboratory experience in dance techniques. Two hours lecture and two hours laboratory per week.

Dance 3. Beginning Modern Dance. One credit. Same as Physical Education 11 and 12 (Modern Dance section.) Instruction in modern dance technique, composition, and improvisation. Three hours per week.

Dance 5. Beginning Ballet. One credit. Instruction in basic barre exercises and floor work. Two hours per week.

Dance 9. Dance Laboratory I. One credit. Practical experience in dance (folk, social, ballet, and modern) performance. May be repeated for a total of two credits.

Dance 11. Specialty Dance. One credit. Same as Physical Education 11 and 12 (Specialty Dance section). Instruction in theatrical dance forms. Two hours per week. Prerequisite: Sophomore standing.

Dance 18. Intermediate Modern Dance I. Two credits. Same as Physical Education 18. Instruction in modern dance technique, composition, and improvisation. Four hours per week. Prerequisite: Dance 3, or Physical Education 16, or consent of instructor.

Dance 19. Intermediate Modern Dance II. Two credits. Same as Physical Education 19. Continuation of Dance 18. Four hours per week. Prerequisite: Dance 18 or consent of instructor.

Dance 103. Advanced Modern Dance I. Two credits. Instruction in modern dance technique, composition, and improvisation. Four hours per week. Prerequisite: Dance 19, or consent of instructor.

Dance 104. Advanced Modern Dance II. Two credits. Continuation of Dance 103. Four hours per week. Prerequisite: Dance 103 or consent of instructor.

Dance 109. Dance Laboratory II. Practical experience in dance (folk, social, ballet, and modern) production. May be repeated for a total of four credits.

Deaf Education

Mr. Gerald Johnson, chairman.

The Deaf Education major is administered under the Department of Speech Pathology and Audiology; the course numbers are the same as for that Department.

A major in Deaf Education in the College of Education consists of:

1. Forty-one credits in Speech Pathology and Audiology, and Deaf Education, including Speech Pathology and Audiology 64, 66, 151, 152, 153, 154, 155, 156, 157, 158, 159, 195.

2. Education 112, 121, 184, 198.

3. For certification at the —
   (a) Pre-school level: Education 101, and eight credits from the following: Drama 183, 184; Education 104M; Home Economics 151, 161, 164; Physical Education 20, 31.
   (b) Primary level: Education 102K, 102L, and 104M or 181.
   (c) Secondary level: Education 105 for a total of four credits, and fulfillment of departmental requirements for two teaching minors.

   Completion of one of these options in Deaf Education will certify the student to teach the deaf in Wisconsin.

Descriptions of the courses pertaining to Deaf Education are listed under the Department of Speech Pathology and Audiology.

Drama

Mr. Faulkner, chairman; Mr. Baruch, Mrs. Bridgeman, Mr. Fuchs, Mr. Hatch, Mr. Knower, Miss Peet, Mr. Poc.

A. **An interdepartmental major in Speech and Drama in the College of Education** consists of 39 credits, 14 of which must be in courses numbered 100 or above. The following courses are required:
   1. Drama 3, 7, 40, 175; three credits of Drama electives;
   2. Speech 14 or 28, 103, 112 or 124, 120; three credits of Speech electives;
   3. Speech 1, or equivalent; Drama 12 or Speech 12; Drama or Speech electives (three or more credits) selected to satisfy the humanities requirement.

B. **A minor in Drama** consists of 22 credits, including Drama 3, 7, 40, 175. Students in the College of Education electing a non-teaching minor in drama will be required to have Drama 182.

C. **A minor in Drama with emphasis in Dance** consists of 22 credits, including Drama 3, 7, 40, 175. Three credits in dance composition may substitute for Drama 175. At least 6 credits must be in the area of dance, movement.

Drama 3. Introduction to Interpretive Reading. Three credits. Fundamentals of oral interpretation.

Drama 5. Appreciation and History of Theatre. Three credits. A survey of the development of theatre including the modern media of television and motion pictures; emphasis on preparation for intelligent criticism as a member of an audience. Not to be counted toward a major or minor in speech.

Drama 7. Theories and Techniques of Acting I. Three credits. Fundamentals of acting; character analysis; techniques and practice; relation of the role to the play as a whole. Four hours per week.

Drama 8. Theories and Techniques of Acting II. Three credits. Continuation of Drama 7, with emphasis on character development. Four hours per week. Prerequisite: Drama 7 or consent of instructor.

Drama 9. Laboratory Work (Radio-TV Workshop). One credit. Workshop experience in announcing, writing, directing, producing, and acting in radio and television programs, and experience in control operation for radio; two hours per week.

Drama 12. Forensic Activities. Three credits. Theory and practice for all public school forensic and dramatic activities; recommended for prospective teachers. Prerequisite: Sophomore standing, or consent of the instructor.

Drama 13. Survey of Dramatic Literature. Three credits. Same as Comparative Literature 31. Styles, theories, and literature of world drama; emphasis on the classic heritage; representative plays studied in the context of their times. **Tragedy.** Prerequisite: Sophomore standing.

Drama 14. Survey of Dramatic Literature. Three credits. Same as Comparative Literature 32. Styles, theories, and literature of world drama; emphasis on the classic heritage; representative plays studied in the context of their times. **Comedy.** Prerequisite: Sophomore standing.

Drama 26. Laboratory Work (Dramatics or Forensics). One credit. Practical work in dramatics or forensics by special arrangement with the instructor. This may be repeated for a maximum of two credits.

Drama 30. Interpretive Reading. Three credits. Principles and techniques of oral interpretation of modern forms of literature; Chamber Theatre and Reader's Theatre. Prerequisite: Drama 3 or consent of instructor.

Drama 40. Elements of Stagecraft. Three credits. Elementary theory and practice in the technical aspects of theatre. Prerequisite: Sophomore standing.

Drama 42. Stage Lighting. Three credits. Theory and practice in the application of methods and principles of lighting for theatrical production. Two hours lecture, two hours laboratory per week. Prerequisite: Drama 40 or consent of instructor.

Drama 43. Stage Costume Design and Construction. Three credits. The 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 hour lecture and four hours of lab per week. Prerequisite: Sophomore standing.

Drama 51. History of Theatre: Beginning Through Renaissance. Three credits. Study of the development of the arts and techniques of the theatre from the beginning through the Renaissance. Prerequisite: Sophomore standing.

Drama 52. History of Theatre: Restoration Through Twentieth Century. Three credits. Study of the development of the arts and techniques of the theatre from the Renaissance to the present. Prerequisite: Sophomore standing.

Drama 53. History of Motion Pictures. Three credits. The history and appreciation of the motion picture and the study of examples from various periods during its development. Two hours lecture, two hours laboratory per week. Prerequisite: Sophomore standing.

Drama 55. Introduction to Stage Costume. Three credits. Survey of the historical development and fundamental principles of the art of costuming for the stage in their relation to theory and practice. Two hours lecture, two hours lab per week. Prerequisite: Sophomore standing.

Drama 70. Stage Make-Up. Two credits. The purpose and techniques of application of theatrical make-up; the use of make-up in the various theatrical media; emphasis on stage use. One hour lecture, two hours laboratory per week. Prerequisite: Drama 7 or consent of instructor.

Drama 71. Advanced Acting I. Three credits. Intensive study in the art of acting; emphasis on production, styles of acting, development of techniques, rehearsal problems. Four hours per week. Prerequisite: Drama 7 and 8 or Drama 7 and consent of instructor.

Drama 72. Advanced Acting II. Three credits. Continuation of Drama 71. Four hours per week. Prerequisite: Drama 71.

Drama 90. Introduction to Broadcasting. Three credits. Basic study and analysis of radio and television in our society; designed to familiarize the student with the principles involved in these two media. Prerequisite: Sophomore standing.

Drama 110. Masters of the Theatre. Two credits. An 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.)

Drama 111. European Drama I. Three credits. An intensive study of the European Drama and Theatre; representative plays; theatre trends.

Drama 112. European Drama II. Three credits. Continuation of Drama 111. Prerequisite: Drama 111 or consent of instructor.

Drama 126. Laboratory Work (Dramatics and Forensics). One credit. Practical work in dramatics or forensics by special arrangement with the instructor. May be repeated for a maximum of four credits.

Drama 127. Fundamentals of Playwriting. Three credits. Basic elements of the playwriting process; idea, structure, theme, plot, characterization, dialogue, language; project writing and class criticism.

Drama 128. Advanced Playwriting. Three credits. Continuation of Drama 127, with emphasis on project writing and performance. Prerequisite: Drama 127, or consent of instructor.

Drama 130. Classic Forms of Interpretation. Two or three credits. Principles and techniques of interpreting classic forms of literature; choric reading choir. The third credit may be taken at the student's option to participate in a choric reading choir.

Drama 140. Scene Design. Three credits. Theory and practice in scenic design; special projects. Prerequisite: Drama 40. Four hours per week.

Drama 149. Special Technical Problems. Three credits. Special projects and techniques of handling advanced technical theatre problems. Prerequisite: Drama 40 and any two of Drama 42, 43 and 140.

Drama 151. Contemporary Theatre. Three credits. A study of 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.

Drama 162. Dramatic Criticism. Three credits. Criticism of forms and styles based on major ancient and modern theories; includes play analysis and production evaluation. Prerequisite: Six credits of dramatic literature.

Drama 175. Beginning Directing I. Three credits. Theory of directing; exercises in blocking and performance of scenes. Four hours per week. Prerequisite: Drama 7; also recommended that the student have Drama 40 and at least three credits in dramatic literature.

Drama 176. Beginning Directing II. Three credits. Practice in directing scenes and one-act plays; development of skills in directing. Four hours per week. Prerequisite: Drama 175 or consent of instructor.

Drama 177. Advanced Directing I. Three credits. Problems of directing with emphasis on full-length plays, including styles, forms, and production coordination. Four hours per week. Prerequisite: Drama 176 or consent of instructor.

Drama 178. Advanced Directing II. Three credits. Continuation of Drama 177. Four hours per week. Prerequisite: Drama 177.

Drama 182. Play Production in the Secondary School. Three credits. Simplified play production for the secondary school teacher; play selection, rehearsal, staging, publicity, budgeting; basic techniques of classroom performances of plays and readings. Not to be counted for the major or minor in Drama in the College of Fine Arts.

Drama 183. Creative Dramatics. Three credits. Philosophy and techniques of creative drama with emphasis on its relation to creative education in general.

Drama 184. Children's Theatre. Two credits. Selection, direction and production of plays for children's audiences.

Drama 190. Seminar in Theatre. Three credits. 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.

Drama 191. Radio-Television Production. Three credits. A lecture-laboratory course in planning and producing broadcasts and films.

Drama 197. Laboratory-Work (Radio-TV Workshop). One credit. Workshop experience in directing, producing, and acting in radio and television programs, and experience in control operation for radio; two hours per week.

Drama 199. Special Work. One to six credits. Upper class students majoring or minoring in Drama may, by agreement with the Chairman of the Department of Drama, 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.

East Central European Studies

See **Russian and East Central European Studies.**

Economics and Business

Mr. Jensen, chairman; Mr. Ahn, Mr. Hiram Anderson, Mr. Christie, Mr. Farmer, Mr. Haferbecker, Mr. Kelch, Mr. Murans, Mr. Pascavis, Mr. Pelletier, Mrs. Pier, Mr. Ryan, Mr. Sage, Mr. Sands, Mr. Sullivan.

A. A major in Economics consists of:

1. Required courses: Economics 11, 12, 105, 130, 150.
2. Controlled electives: 9 credits from the following courses: Economics 101, 122, 124, 137, 146, 156, 181.
3. Electives: additional Economics courses to total at least 30 credits.
4. Collateral course: Mathematics 6 or 9 or 10.

A minimum grade point average of 2.00 in courses taken within the major is a requirement for acceptance of the student as a major at the start of his junior year. The minimum grade point average of 2.00 in courses in the major is also a requirement for the student's retention as major during his junior and senior years and for department approval of the major for graduation. The department chairman may allow exceptions to this standard on a conditional basis.

B. A minor in Economics consists of at least 20 credits, including Economics 11, 12, and 130.

Note: Four additional credits in Economics to total at least 34 are required for a major in Economics in the Secondary Education curriculum; and two additional credits in Economics to total at least 22 are required for a minor in Economics in the Secondary Education curriculum.

Economics 11. General Economics. Three credits. An introduction to the character and scope of economics; the elements of supply and demand; the measurement and determination of national income; macro-economics; money and banking. Prerequisite: Sophomore standing.

Economics 12. General Economics. Three credits. Monopolistic competition and price theory; micro-economics, theory of distribution, public finance, international trade, and the balance of payments. Prerequisite: Economics 11.

Economics 13S. Principles of Economics. Four credits. A basic survey of institutions, problems, and policies in the American economy with emphasis on principles; selected micro-economic and macro-economic topics. Open only to those enrolled in Economics Education Institute.

Economics 101. Development of Economic Thought. Three credits. A survey of economic thought from the mercantilists to recent writers. Prerequisite: Economics 12.

Economics 105. Money and Banking. Three credits. Monetary and banking principles and practice; price theories; banking systems and their operation. Prerequisite: Economics 11.

Economics 106. Population Problems. Three credits. Same as Sociology 106. Demography, population theory, trends and analysis; United States and world population. Prerequisite: Economics 11, or Sociology 1.

Economics 122. Labor Problems. Three credits. Employer-employee relationships; characteristics of labor markets; types of labor organizations and employer organizations; industrial disputes and the devices for effecting settlements; collective bargaining and labor legislation.

Economics 124. Public Finance. Three credits. Theories, practices, and problems of taxation; proposed tax reforms; fiscal policy. Prerequisite: Economics 12, or consent of instructor.

Economics 127. Consumer and Cooperative Economics. Two credits. Economics

for the consumer; purchasing, investing, consumer credit, taxation, and insurance; the development, philosophy, and problems of consumer and marketing cooperatives.

Economics 130. Statistical Methods. Three credits. Sources of statistical data, tabulation, charting, averages, dispersion, sampling and probability, index numbers, trends, seasonal variations, economic cycles, correlation. Prerequisite: Economics 11.

Economics 131. Econometrics. Three credits. Introduction to quantitative methods as they apply to economic relationships; regression and correlation, statistical inference, economic models, and applications to economic theory. Prerequisite: Economics 12, 130; Mathematics 5 or 7.

Economics 133. Managerial Economics. Three credits. Application of price theory and economic theory of the firm to business management decisions; use of micro-economics and macro-economics in forecasting for business policy. Prerequisite: Economics 12.

Economics 137. Corporation Finance. Three credits. Business units, especially corporate, in present day enterprise; financial principles applicable to their operation. Prerequisite: Economics 11.

Economics 142. Public Utilities. Three credits. Development of public utilities in the United States; theoretical and institutional basis of public utility regulation; development of regulatory agencies; public versus private ownership. Prerequisite: Economics 11.

Economics 146. Business and Government. Three credits. A general survey of the problems of the relationship between government and business in an advanced technological society. Prerequisite: Economics 12.

Economics 150. Economic Theory. Three credits. The study of contemporary micro-economic theory, including consumption, production, pricing, and resources allocation; macro-economics, an analysis of the level of national income, is also included. Prerequisite: Economics 12.

Economics 151. Economic Development. Three credits. The stages of economic growth; study of economic conditions and policy in the underdeveloped and intermediately developed national economies. Prerequisite: Economics 12.

Economics 156. International Trade. Three credits. The role of international trade, principle of comparative advantage, foreign exchange, balance of payment, gold flows. Prerequisite: Economics 12.

Economics 163. Social Insurance. Two credits. Same as Sociology 163. Various forms of public insurance, e.g., social security, unemployment insurance, compensation, retirement insurance and public welfare; theory and practice of public agencies of insurance; public insurance applied to industrial and agricultural development. Prerequisite: Economics 11, or consent of instructor.

Economics 169. Comparative Economic Systems. Three credits. Analysis and appraisal of the structure and function of diverse economic systems, such as capitalism, socialism, communism, and their modifications. Prerequisite: Economics 11.

Economics 172. Economic History of the United States. Three credits. Same as History 172. American economic life since the Civil War. Prerequisite: History 12.

Economics 181. Business Cycles. Three credits. Analysis of leading theories; the Keynesian system; monetary and other factors; measurement of income, output, and employment; forecasting; policy. Prerequisite: Economics 12.

Economics 199. Special Work. Upper class students majoring or minoring in Economics may, by agreement with the chairman of the Economics 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.

Education

Education Department: Mr. Bernd, chairman; Mr. Hudson Anderson, Mr. Benz, Mr. Boutelle, Mr. Clements, Mr. Cone, Mr. Fuller, Mr. Gibb, Mr. Gotham, Mr. Hoffbeck, Mr. Kirby, Miss Lane, Mr. Larsen, Mr. Robert Lewis, Mr. Thomas McCaig, Miss Narron, Mrs. Samter, Miss Schneider, *Mr. Van Dreser, Mr. Wenger, Mr. Roger Wood. (*On leave.)

Student Teaching: Mr. Gach, director; Mr. Eagon, Mr. Hayes, Mrs. Kerst, Mr. Lensmire.

University Laboratory School: Mr. Pearson, director; *Miss Allar, Miss Bruckner, Mrs. Burling, Mr. Campbell, Miss Carrol, Mr. Fields, Mrs. Gibb, *Miss Gray, Miss Vivian Kellogg, Miss Kuse, Miss Larke, Mrs. Psarras, Mrs. Ravey, Mr. James Reed, *Mr. Snowden, Mrs. Telfer, Mr. Wright. (*On leave.)

Education 1. Driver Education for Beginners. No credit. Concurrent with Education 136 for classroom discussion and activity; behind-the-wheel training in a dual control automobile with a student instructor-in-training, under the supervision of the instructor.

Education 101. Techniques in Kindergarten Education. Two credits. Techniques used in kindergarten teaching; observation included.

Education 102. Techniques in Primary Education. Each four credits. Principles, aims, methods, and techniques. **102K—Reading and other Language Arts; 102L—Mathematics, Social Studies, Science.**

Education 103. Techniques for Intermediate and Upper Grades. Each four credits. Principles, aims, methods, and techniques of intermediate and upper grade teaching. Three hours lecture; observation and laboratory hours to be arranged. **103K — Reading, Language Arts; 103L — Social Studies, Mathematics, Science.**

Education 104. Techniques in the Elementary School.

104K. Guidance. Three credits. Policies and practices of organized guidance in the elementary school; personal, social, and educational adjustment problems and needs. Prerequisite: Education 121 and teaching experience.

104L. Speech. Three credits. Methods, materials, and philosophy for the teaching of speech in the elementary school; curricular correlation.

104M. Art. Two credits. Methods, materials and philosophy for the teaching of art in the elementary school.

104N. Music. Two credits. Theory and application of effective teaching skills in the primary and intermediate grades; aims and content of public school music in relation to general curriculum; classroom observation. Prerequisite: Music 10. (Open only to Music majors and minors.)

Education 105. Techniques in Secondary Education. Each two credits. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in high school teaching.

105K - Accounting; L - Shorthand and Typewriting; M - English; P - Foreign Language; Q - Home Economics; R - Mathematics; S - Music; U - Science; V - Social Studies; W - Speech; X - Art.

Education 106. Techniques in Elementary and Secondary Education. Aims, methods, materials, techniques, planning, organization, testing, etc., as applied in elementary and high school teaching. **106K—Physical Education.** Two credits. **106L—Speech Correction.** Three credits.

Education 108. Workshop in Elementary Education. Three credits. Workshop technique applied to problems of teaching in various curricular fields in the elementary schools. A subtitle will be added to the title to describe the area considered each time the course is offered.

Education 110. Workshop in Education. One to three credits. Workshop technique applied to problems of teaching in the elementary and secondary schools. A subtitle will be added to the title to describe the area each time the course is offered. Prerequisites may be stated for each subtitle.

Education 110C - Conservation. Prerequisite: Open only to students majoring or minoring in Natural Resources Management; or Natural Resources 190.

Education 110F - Foreign Language.

Education 111. Principles of Education. Three credits. Meaning and purposes of education in society; relationship of the teacher to the pupil, the school, the community, and the profession.

Education 112. Educational Psychology. Three credits. Psychological bases of educational procedures and practices; the educational implications of the characteristics of physical and mental growth, emotional behavior, motivation, learning, and individual differences; an integrating course taken concurrently with student teaching. Prerequisite: Psychology 11.

Education 113. Philosophy of Education. Three credits. 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.

Education 121. Tests and Measurements. Three credits. 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.

Education 131. Audio-Visual Education. Three credits. Classroom use of such aids as pictures, slides, motion pictures, and maps; training in the use of radio programs as an educational aid.

Education 132. Production of Audio-Visual Aids. Two credits. Production of flannel boards, specimens and models, film strips, taped radio programs, displays and exhibits. Four hours per week. Prerequisite: Education 131, or consent of instructor.

Education 135. Safety Education. Three credits. Organization, administration, and teaching of safety in home, highway, water, athletic, recreational, and industrial areas.

Education 136. Driver Education. Three credits. Organization, administration, and teaching of Driver Education and Training; requires the instruction of a new driver with the dual-control training car outside regular class hours.

Education 137. Advanced Driver and Safety Education. Three credits. For personnel in safety and driver education; designed to develop concepts related to traffic safety, traffic law and enforcement, engineering, school transporta-

tion, research, teaching methods by using simulated and multiple car plan, and area program administration. Prerequisite: Education 135, 136.

Education 142. The Junior High School. Two credits. History and development of the modern junior high school; philosophy and objectives, with emphasis on the resulting variations in curriculum programs, and teaching approaches.

Education 143. Reading in the Junior High School. Materials and techniques of teaching developmental reading in the junior high school; emphasis on instruction for pupils reading below their potential.

Education 181. Remedial Reading. Two or three credits. Preventive and remedial measures in the teaching of reading in all the grades and high school; diagnosis of causes and the application of remedial techniques.

Education 182. Remedial Reading Practicum. Three credits. Practical application of remedial reading techniques and materials with individual or small group instruction. Prerequisite: Education 181 or concurrent registration therein.

Education 183. Organization and Administration of Outdoor Education. Three credits. 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 education techniques.

Education 184. The Exceptional Child. Three credits. Characteristics and educational needs of children who are mentally retarded, gifted, emotionally disturbed, or who have visual, hearing, speech, or motor handicaps; an introductory course for those preparing to teach exceptional children, and designed to aid the regular classroom teacher in recognizing and interpreting the significance of developmental deviations. Prerequisite: Psychology 11.

Education 185. Workshop in Mental Health. Four credits. A workshop 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.

Education 190. Seminar. One to three credits. Studies and discussion of current problems in education. A subtitle will be added when specific areas are treated.

Education 191. Organization and Administration of Vocational Home Economics. Three credits. Organization and administration of the vocational home economics program in rural and city schools, including experience with adult home making education.

Education 193. Issues in Vocational and Technical Education. Two credits. The administration and organization of vocational and adult education on the national, state, and local level.

Education 198. Student Teaching. Credit as arranged. Observation and teaching under the guidance of co-operating 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.

Education 199. Special Work. Upper class students in the School of Education may, by agreement with the chairman of the Education 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.

Engineering Graphics

Mr. Lampert.

Engineering Graphics 1. Engineering Graphics. Three credits. Orthographic projection, sectional view conventions, theory of dimensioning, construction of auxiliary view, and applications to theoretical and practical problems, screw threads, engineering graphs; techniques of freehand and mechanical drafting. For students who have not had engineering drawing in high school.

Engineering Graphics 2. Engineering Graphics and Descriptive Geometry. Three credits. Analysis and solution of engineering problems involving points, lines, and planes in terms of advanced orthographic projection theory, with emphasis on independent thinking; pictorial representation, isometric projection, and vectors. Prerequisite: Engineering Graphics 1, or one year of engineering drawing in high school.

English

Mr. Leon Lewis, chairman; Mr. Hudson Anderson, Mr. Baurecht, Mr. Berman, Mrs. Bernd, Mrs. Bjornson, Mrs. Patricia Bloom, Mr. Thomas Bloom, Mr. Buehrens, Miss Buggs, *Mr. Burress, *Mr. Chapman, Mr. Chatterjee, Mrs. Cogswell, Mrs. Corneli, Mrs. Croft, Miss De Smet, Mrs. Dixon, Mr. Dodge, Mr. Doxtator, Mr. Fulwiler, Miss Glennon, Mr. Golubowicz, Mr. Hanselmann, Mrs. Heaton, Mr. Jennings, Miss Koskenlinna, Mr. Lehman, Mr. Lutz, Mr. Mickelson, Mr. Missey, Mr. Montgomery, Mrs. Moore, Miss Nyquist, Mr. Pattow, Mr. Reichel, Mr. Rondy, Mrs. Rondy, Mr. Severin, *Miss Shumway, Miss Smith, *Miss Stelmahoske, Mr. Steingass, Mrs. Steingass, Mr. Stewart, Mr. Tecklin, Mrs. Thomson, Miss Tremblay, Mrs. Wood, Mrs. Zawadsky. (*On leave.)

A. A major in English consists of a minimum of 32 credits beyond Freshman Composition. These include 12 credits in English and American Literature (normally English 11-12 and 13-14; however a student who elects to major in English while taking English 15-16 may complete this requirement by taking either English 11-12 or 13-14), and 20 credits distributed as follows:

1. One of these courses: English 112, 114, 116, 118, 120. (Two or three credits.)
2. Two of these courses: English 126, 127, 128, 130, 131, 132, 133, 134, 137, 138, 140, 142, 143, 145-146. (Six credits.)
3. English 155 or 156 and one other from this group: English 150, 160, 165. (Six credits.)
4. English 194 and one other from this group: English 30, 183-184, 188, 190, 192. (Five or six credits.)

B. A minor in English consists of a minimum of 18 credits beyond Freshman Composition. These must include 6 credits in English Literature (English 11-12) or 6 credits in American Literature (English 13-14), 3 credits of Shakespeare (English 155 or 156), and 3 credits of grammar (English 194). Three credits shall be chosen from group 1; three credits shall be chosen from group 2.

Within the English major several options are available. Majors planning to teach in the public schools should include courses in advanced composition and grammar. Desirable minors to accompany the majors are a foreign language, speech and drama, history, and the social sciences.

Recommendation for practice teaching and for teacher placement will be given only to majors and minors whose grade point average in their English classes is 2.25 or above.

Majors interested in graduate work and college teaching should include, insofar as possible, Milton, Chaucer, Old English, and two courses in Shakespeare. Knowledge of a foreign language is usually required for graduate work in English.

Majors interested in applied writing positions in business, conservation, industry, or science should work out programs in consultation with the chairmen of the respective departments: English and Business, English and Natural Resources, etc.

English 1-2. Freshman English. Each three credits. To assist students to improve their ability to read critically, to reason logically, and to write effectively; emphasis on principles of rhetoric, with expository and imaginative materials used for illustrative purposes. English 1 is prerequisite to English 2.

English 3-4. Freshman English. Each three credits. To improve general literacy of students in reading and writing; attention to selected works both imaginative and expository, containing the great ideas of man. English 3 is prerequisite to English 4.

English 5-6. Freshman English. Each three credits. To improve the general literacy of students in reading and writing; study of selected works to give the student a systematic understanding of fiction, poetry, and drama. English 5 is prerequisite to English 6.

English 7-8. Freshman English. Each three credits. Introduction to the formal aspects of composition at the verbal level; attention to semantic processes, diction, ambiguity, imagery, metaphor, symbolism. Primarily for English majors. English 7 is prerequisite to English 8.

English 9. Folklore. Two or three credits. Introduction to folklore in its literary forms with reference to the ballad, the folk tale, and folk sayings.

English 11-12. Survey of English Literature. Each three credits. A study of selections taken from English literature with emphasis on the major writers. **11.** From Beowulf through the Pre-Romantics. **12.** From the Romantics to the present. Need not be taken in sequence. Prerequisite: Sophomore standing, except for English majors.

English 13-14. Survey of American Literature. Each three credits. A study of selections taken from American literature with emphasis on the major writers. **13.** From Colonial literature through Whitman. **14.** From Dickinson to the present. Need not be taken in sequence. Prerequisite: Sophomore standing.

English 15-16. Introduction to Literature. Each three credits. A study of selected writings representing various periods and countries, emphasizing insight into the works, and designed to improve the student's ability to understand literature. **15.** Poetry and Drama. **16.** Prose. Need not be taken in sequence. Prerequisite: English 2 or equivalent. Not open to students who have had English 5-6.

English 17. Introduction to Literature: Fiction and Non-Fiction. Three credits. Study of the structures of fiction and non-fiction. Open to English majors as second semester freshmen. Prerequisite: English 7; 8, or concurrent enrollment therein, or consent of instructor.

English 18. Introduction to Literature: Poetry and Drama. Three credits. Study of the structures of poetry and drama. Prerequisite: English 17.

English 21. Literature of the Primary Grades. Three credits. Literature by types, with emphasis upon narrative; the establishing of standards by which to judge new literature. Prerequisite: Sophomore standing.

English 23. Children's Literature. Three credits. Literature for children, with emphasis upon the reading, selection, and presentation of materials suitable for the various grades in an elementary school. Prerequisite: Sophomore standing.

English 30. Intermediate Composition. Two or three credits. Practice in descriptive, narrative, and expository projects with special emphasis on expository writing. Prerequisite: Sophomore standing.

English 34. Introduction to Linguistics. Three credits. A survey of the fundamental concepts and methods of the scientific study of languages in their structural, historical, and geographic aspects. Prerequisite: Sophomore standing.

English 45. Introduction to Literature: Comic and Romantic. Three credits. Study of the literary modes of the comic and romantic. Prerequisite: English 17; 18, or concurrent registration therein, or consent of instructor.

English 46. Introduction to Literature: Tragic and Ironic. Three credits. Study of the literary modes of the tragic and ironic. Prerequisite: English 45.

English 104. Literature for Adolescents. Three credits. Selecting and reading of literature suitable for adolescents.

English 112. Modern Drama. Two or three credits. Same as Comparative Literature 112. Representative dramas of world literature from Ibsen to the present; emphasis on literary structure, form, and theme.

English 114. Modern Poetry. Two or three credits. A study of contemporary poetry. Prerequisite: English 11-12, or 13-14.

English 116. The Modern Short Story. Three credits. Same as Comparative Literature 116. Representative short stories of world literature with emphasis on literary structure, form, and theme.

English 118. The Novel since 1850. Three credits. Same as Comparative Literature 118. Representative novels of world literature with emphasis on literary structure, form, and theme.

English 120. Literary Criticism. Two or three credits. Same as Comparative Literature 120. Principles of literary criticism based on the chief ancient and modern theories.

English 126. The English Renaissance. Three credits. Development of English literature from 1500 to 1660.

English 127. English Renaissance Drama, Excluding Shakespeare. Three credits. Non-Shakespearean drama of the English Renaissance.

English 128. Eighteenth Century Literature. Three credits. Development of English poetry, drama, and prose fiction from 1660 to the late eighteenth century, through a study of selected authors.

English 130. The Romantic Movement. Three credits. Development of romanticism in England, its theory and its creation, including a rapid survey of the pre-romantic movement.

English 131. Victorian Poetry. Three credits. An intensive study of the major Victorian poets from Tennyson thru the aesthetic movement in the 1890's.

English 132. Victorian Prose. Three credits. A study of representative prose works by Macaulay, Carlyle, Huxley, Mill, Newman, Pater, and others.

English 133-134. The English Novel. Each three credits. **133.** The English novel from Defoe to George Eliot. **134.** Since George Eliot. These courses may be taken independently of one another.

English 137-138. The American Novel. Each three credits. **137.** The American novel from Brockden Brown to Mark Twain. **138.** From Stephen Crane to the present. These courses may be taken independently of one another.

English 140. The American Renaissance. Three credits. A critical study of the American literary renaissance of the

mid-nineteenth century with major emphasis on the works of Emerson, Thoreau, Hawthorne, Melville, and Whitman. Prerequisite: English 13 and 14.

English 142. Midwestern Literature. Three credits. History and life of prairie states, virgin forests, rivers, cities, farms, and industries as reflected in their literature.

English 143. The Negro in American Literature. Three credits. A critical study of the Negro in American literature from two vantage points: the image of the Negro in the works of major American writers, and the image of the Negro and the image of America in works created by American Negro writers.

English 145-146. World Literature. Each three credits. Same as Comparative Literature 145-146. **145.** Representative selections of world literature from the earliest times to the seventeenth century. **146.** World literature from the seventeenth century to the present. These courses may be taken independently of one another.

English 147. The New Literature of Africa. Three credits. Same as Comparative Literature 147. An exploration of Africa's self-expression and self-revelation in the growing body of poetry, fiction, and non-fiction by the contemporary African writers in the context of the African drive for independence and the dynamics of cultural change in Africa.

English 150. Chaucer. Three credits. Life and works of Chaucer, with major emphasis on the **Canterbury Tales** and the historical, social, linguistic background necessary for their comprehension and enjoyment.

English 155-156. Shakespeare. Each three credits. **155.** The early plays. **156.** The tragedies and later plays. These courses may be taken independently of one another.

English 160. Milton. Three credits. Milton's poetry and selected prose.

English 165. Masters of Literature. Two or three credits. A close, critical study of one or more masters of literature, to be determined by the special interest of the staff member offering the course. A subtitle indicating the author or authors' studies will be added each time the course is offered.

English 183-184. Creative Writing. Each two or three credits. Creative writing in the essay, short story, and drama; a study of types of creative writing. These courses may be taken independently of one another. Prerequisite: Consent of the instructor.

English 188. History of the English Language. Three credits. Standards of sounds, inflection, and syntax of the language.

English 190. Old English. Three credits. Introduction to Old English language and literature.

English 192. Expository Writing. Three credits. An advanced course in the principles and practices of expository writing.

English 194. The Grammar of English. Three credits. Form and function in modern English.

English 198. Workshop in English. Two or three credits. Study of contemporary scholarship in the English language.

English 199. Special Work. Upper class students majoring or minoring in English may, by agreement with the chairman of the English 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. Prerequisite: A grade point average of 2.75 in English courses.

Food and Nutrition

See **Home Economics.**

Foreign Language

Mr. Kroner, chairman; Mr. Adams, Mr. Melvin Bloom, Mr. Dahl, Miss Mildred Davis, *Miss Kaminska, Mr. Krotz, Mrs. Lechausse, Mr. MacKenzie, Mr. Montes, Mr. Roque-Nunez, Miss Strauss. (*On leave.)

All entering students who elect courses in French, German, Russian, or Spanish, and who have previously studied the language, are required to take a placement examination in that language. On the basis of this examination and their previous records, the students are advised as follows:

Students offering one year or two years of high school preparation are normally placed in courses numbered 2 or 11. Students whose preparation proves inadequate may be reassigned to classes appropriate to their skill and need, or be required to do remedial work in addition to the regular work of the course, with no additional credit.

Students who have demonstrated proficiency in French, German, Russian, or Spanish may be placed in the appropriate advanced course by the department.

Foreign Language 0. English as a Foreign Language. No credit. A two-semester, non-credit course in English for foreign students who do not have adequate facility in English for university work.

French

A. A major in French consists of 26 credits beyond the first year level.

B. A minor in French consists of 16 credits beyond the first year level, including French 113 or 114.

The equivalent of one year of college work in French must be completed before credit in French will count toward graduation. There is a laboratory fee of approximately fifty cents per semester.

French 1-2. First year French. Each four credits. For students with no previous training in the language; grammar, oral practice, reading. Students with one year of high school French, with grades of C or better, will enter French 2.

French 3-4. Beginning Aural-Oral French. Each four credits. Audio-visual approach to the mastery of elementary French. For students with no previous training in the language. Sequence follows with French 13-14.

French 11-12. Second Year French. Each four credits. Extensive and intensive reading; oral practice and review of grammar. Prerequisite: French 2, or two years of high school French with grades of C or better. Students who present three years of high school French will enter French 12.

French 13-14. Intermediate Aural-Oral French. Each four credits. Continuation of French 3-4; audio-visual approach to the mastery of intermediate French. Prerequisite: French 3-4, or consent of the instructor.

French 15-16. Scientific French. Each four credits. Readings in technical

prose, especially adapted to the needs of science majors; a careful study of word-formation and sentence structure with a view to developing accuracy and facility in translating. The course may be repeated without credit with the consent of the instructor. Prerequisite: French 2, or equivalent.

French 113-114. Composition and Conversation. Each two or three credits. Facility in French expression, oral, and written. Need not be taken in sequence. Prerequisite: French 12, or equivalent.

French 115-116. Survey of French Literature. Each three credits. **115:** to 1700; **116:** from 1700 to 1900. Need not be taken in sequence. Prerequisite: French 113-114, or equivalent.

French 118. Contemporary French Literature. Two or three credits. Literary trends in France from 1900 to the present; their relation to social, political, and philosophical thought; advanced composition and conversation. Prerequisite: French 115-116, or consent of instructor.

French 119. French Literature of the Seventeenth Century. Three credits. Careful reading and analysis of masterpieces of the classic period. The student will select one writer for intensive study. Prerequisite: French 115-116, or consent of the instructor.

French 120. French Literature of the Eighteenth Century. Three credits. Careful reading and analysis of masterpieces of the "Age of Reason." The student will select one writer for intensive study. Prerequisite: French 115-116, or consent of the instructor.

French 121. French Literature of the Nineteenth Century. Three credits. Major French literary figures and works of the nineteenth century. Prerequisite: French 115-116 or consent of instructor.

French 131-132. French Civilization and Culture. Each three credits. Need not be taken in sequence. Prerequisite: French 12 or equivalent.

French 191. Linguistic Structure of French. Three credits. Descriptive analysis of present day French, based on a contrastive study of the structure of English and French; emphasis on phonetics, phonemics, morphology, and syntax. Prerequisite: French course numbered over 100; the student is advised to take English 34 or 194 previously or concurrently.

French 199. Special Work. Upper class students majoring or minoring in French may, by agreement with the chairman of the French 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.

German

A. A major in German consists of 26 credits beyond the first year level.

B. A minor in German consists of 16 credits beyond the first year level, including German 113 or 114.

The equivalent of one year of college work in German must be completed before credit in German will count toward graduation.

There is a laboratory fee of approximately fifty cents per semester.

German 1-2. First Year German. Each four credits. For students with no previous training in the language; grammar, oral practice, reading. Students with one year of high school German, with grades of C or better, will enter German 2.

German 11-12. Second year German. Each four credits. Extensive and intensive reading; oral practice and review of grammar. Prerequisite: German 2, or two years of high school German, with grades of C or better. Students who present three years of high school German will enter German 12.

German 15-16. Scientific German. Each four credits. Readings in technical prose, especially adapted to the needs of science majors; a careful study of word-formation and sentence structure with a view to developing accuracy and facility in translating. The course may be repeated without credit with the consent of the instructor. Prerequisite: German 2 or equivalent.

German 113-114. Composition and Conversation. Each two or three credits. Facility in German expression, oral and written. Prerequisite: German 12 or equivalent. These courses need not be taken in sequence.

German 115-116. Survey of German Literature. Each three credits. **115:** to Goethe; **116:** Goethe to 1885. Need not be taken in sequence. Prerequisite: German 113-114 or equivalent.

German 118. Contemporary German Literature. Two or three credits. Literary trends in Germany from 1885 to the present; their relation to social, political, and philosophical thought; advanced composition and conversation. Prerequisite: German 115-116, or consent of instructor.

German 119. German Literature of the Eighteenth Century. Three credits. Selective reading from Lessing, Herder, Schiller, and the works of Goethe exclusive of "Faust." Prerequisite: German 115-116, or consent of the instructor.

German 120. Goethe's "Faust," I and II. Three credits. Prerequisite: German 115-116, or consent of the instructor.

German 121. German Literature of the Nineteenth Century. Three credits. Major German literary figures and works of the nineteenth century. Prerequisite: German 115-116, or consent of instructor.

German 131-132. German Civilization and Culture. Each three credits. Need not be taken in sequence. Prerequisite: German 12, or equivalent.

German 191. Linguistic Structure of German. Three credits. Descriptive analysis of present day German, based on a contrastive study of the structure of English and German; emphasis on phonetics, phonemics, morphology, and syntax. Prerequisite: German course numbered over 100; the student is advised to take English 34 or 194 previously or concurrently.

German 199. Special Work. Upper class students majoring or minoring in German may, by agreement with their chairman of the German 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.

Polish

The equivalent of one year of college work in Polish must be completed before credit in Polish will count toward graduation.

Polish 1-2. First Year Polish. Each four credits. For students with no previous training in the language; grammar, oral practice, reading.

Polish 11-12. Second Year Polish. Each four credits. Extensive and intensive reading; oral practice and review of grammar. Prerequisite: Polish 2 or equivalent, or consent of instructor.

Russian

A minor in Russian consists of 16 credits beyond the first year level, including Russian 113 or 114.

The equivalent of one year of college work in Russian must be completed before credit in Russian will count toward graduation. There is a laboratory fee of approximately fifty cents per semester.

Russian 1-2. First Year Russian. Each four credits. For students with no previous training in the language; grammar, oral practice, reading. Students with one year of high school Russian will enter Russian 2.

Russian 11-12. Second Year Russian. Each four credits. Extensive and intensive reading; review of grammar and pronunciation. Prerequisite: Russian 2 or two years of high school Russian. Students who present three years of high school Russian will enter Russian 12.

Russian 15-16. Scientific Russian. Each four credits. Readings in technical prose, especially adapted to the needs of science majors; a careful study of word-formation and sentence structure with a view to developing accuracy and facility in translating. The course may be repeated without credit with the consent of the instructor. Prerequisite: Russian 2, or equivalent.

Russian 111-112. Russian Literature and Civilization. Each three credits. Survey course: lectures, readings, reports. Prerequisite: Russian 12 or equivalent. These courses need not be taken in sequence.

Russian 113-114. Composition and Conversation. Each two or three credits. Facility in Russian expression, oral and written. Prerequisite: Russian 12 or equivalent. These courses need not be taken in sequence.

Russian 199. Special Work. Upper class students majoring or minoring in Russian may, by agreement with the chairman of the Russian 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.

Spanish

A. A major in Spanish consists of 26 credits beyond the first year level.

B. A minor in Spanish consists of 16 credits beyond the first year level, including Spanish 113 and 114.

The equivalent of one year of college work in Spanish must be completed before credit in Spanish will count toward graduation. There is a laboratory fee of approximately fifty cents per semester.

Spanish 1-2. First Year Spanish. Each four credits. For students with no previous training in the language; grammar, oral practice, reading. Students with one year of high school Spanish, with grades of C or better will enter Spanish 2.

Spanish 11-12. Second Year Spanish. Each four credits. Extensive and intensive reading; oral practice and review of grammar. Prerequisite: Spanish 2, or two years of high school Spanish with grades of C or better. Students who present three years of high school Spanish will enter Spanish 12.

Spanish 113-114. Composition and Conversation. Each two or three credits. Facility in Spanish expression, oral, and written. Need not be taken in sequence. Prerequisite: Spanish 12, or equivalent.

Spanish 117. Advanced Composition and Conversation. Two or three credits. Com-

position and conversation based on modern Spanish and Spanish-American literature. Prerequisite: Spanish 113-114 or equivalent.

Spanish 131. A Cultural History of Spain. Three credits. Spanish culture from prehistoric times through the Spanish Civil War. Prerequisite: Spanish 12 or equivalent.

Spanish 132. Latin American Civilization. Three credits. Literary expression of socio-economic and cultural development in Central and South America from pre-Columbian cultures to the twentieth century. Prerequisite: Spanish 12 or equivalent.

Spanish 135-136. Survey of Spanish Literature. Each two or three credits. Spanish literature from its earliest extant work through the post Spanish Civil War authors; reading from representative works of major authors illustrating all literary movements. Need not be taken in sequence. Prerequisite: Spanish 131-132 or consent of instructor.

Spanish 139. Poetry and Drama of the Golden Age. Two or three credits. Verse of, and verse forms employed by, the major Golden Age poets; application of these forms to representative verse-dramas. Prerequisite: Spanish 135-136 or consent of instructor.

Spanish 140. The Picaresque Novel. Two or three credits. Development of this Spanish novel from its inception in the sixteenth century to its decadence and decline in the seventeenth. Prerequisite: Spanish 135-136 or consent of instructor.

Spanish 141. Cervantes. Two or three credits. Study of Don Quijote, the Novelas ejemplares, the dramatic and poetic works, the life and times of Miguel de Cervantes. Prerequisite: Spanish 135-136 or consent of instructor.

Spanish 142. Survey of Spanish American Literature. Two or three credits. Chroniclers of the Indies, major writers of the colonial period, nineteenth century writers, and their continuing search for national identity which is linked to the nation-building process. Prerequisite: Spanish 132 or consent of instructor.

Spanish 143. Romanticism and Realism in Nineteenth Century Spanish Literature. Two or three credits. Representative authors of the nineteenth century with emphasis on the romantic drama and the realistic novel. Prerequisite: Spanish 135-136 or consent of instructor.

Spanish 191. Linguistic Structure of Spanish. Three credits. Descriptive analysis of present day Spanish, based on a contrastive study of the structure of English and Spanish; emphasis on phonetics, phonemics, morphology, and syntax. Prerequisite: Spanish course numbered over 100; the student is advised to take English 34 or 194 previously or concurrently.

Spanish 199. Special Work. Upper class students majoring or minoring in Spanish may, by agreement with the chairman of the Spanish 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.

Forestry

See **Natural Resources.**

French

See **Foreign Language.**

General Science

Mr. Kulas, Mr. Blocher, advisers.

Six credits of college mathematics, or the equivalent, are required as a supplement to the General Science major.

A. A major in General Science in the College of Letters and Science consists of the following:

1. At least two of the following sciences:
   Biology 3-4.
   Chemistry 5-6, or 7-8.
   Geography 2-3.
   Physics 3-4, or 10, 11, 12.
2. The course(s) numbered 1 in the other science(s).
3. Ten credits elected from courses numbered over 100 in biology, chemistry, and physics, or Geography 151, 152.

B. A major in General Science in the College of Education consists of the following:

1. Biology 3-4.
   Chemistry 5-6, or 7-8.
   Geography 2-3.
   Physics 3-4, or 10, 11, 12.
2. Additional credits in biology, chemistry, or physics, selected to satisfy the requirements for a minor of at least 22 credits in that subject matter area.
3. Additional credits to total 54 in the sciences.

C. A minor in General Science in the Elementary Education Curriculum consists of 25 credits selected from biology, chemistry, physics, Geography 1, 2, 3, 151, 152. A minimum of one 5-credit course must be selected from each of three of the four fields. In using the year sequence courses, both semesters must be completed.

Geography

Mr. Robert Anderson, chairman; Mr. Bastian, Mr. Bjork, Mr. Brandt, Mr. Chang, Mr. Difford, Mr. Gerlach, Mr. Hallett, Mr. Alvin Johnson, Mr. Kapter, Mr. McKinney, Mr. Morgan, Mr. Multhauf, Mr. Parry, Mr. Perret, Mr. Sengenberger, Mr. Specht, Mr. Stetzer, Mr. Van Lieshout, Mr. Vickers.

A. A major in Geography consists of a minimum of 34 credits to include the following:

1. Geography 1, or 2 and 3 (if Geography 1 is taken, Geography 151 and 152 must also be included); Geography 10 or 51, 176, 178, 179.
2. At least two regional courses from the following: Geography 26 or 126, 100, 101, 102, 127, 128, 129, 130, 131.
3. At least one topical course from the following: Geography 170, 171, 172, 173, 174, 175.
4. Sufficient additional credits to total 34 or more.

B. A minor in Geography consists of 22 credits to include the following:

1. Geography 1, or 2 and 3; 10 or 51.

2. At least one course from each of the following groups:
   a. Geography 26 or 126, 100, 101, 102, 127, 128, 129, 130, 131.
   b. Geography 170, 171, 172, 173, 174, 175.
3. Sufficient additional credits to total 22 or more.

Geography 1, 2, 3, 151, and 152 are physical geography courses. All others, except Geography 176, 177, 178, 179 are cultural.

Geography 1. Earth Science. Five credits. Factors of our natural environment; earth relationship, weather, landforms, and soil; three hours lecture, four hours laboratory per week; field trips. For students not intending to major or minor in Geography. Credit in this course can be used to meet the laboratory science requirements for a degree, but cannot be counted for graduation or the major if Geography 2 and 3 (or equivalent) are counted.

Geography 2. Weather and Climate. Five credits. An introduction to the elements of weather and climate to include earth and sun relationships, winds, humidity, and storms; an analysis of the classifications of the climates of the world; three hours lecture, four hours laboratory per week. Credit in this course can be used to meet the laboratory science requirements for a degree.

Geography 3. Physiography. Five credits. A descriptive interpretation of landforms, soil, and mineral resources; three hours lecture, four hours laboratory per week; field trips. Credit in this course can be used to meet the laboratory science requirement for a degree.

Geography 10. Economic Geography. Three credits. Production and distribution of the world's commodities of commerce — its foodstuffs, raw materials, manufactured goods, and trade.

Geography 11. Wisconsin. Two or three credits. A geographic analysis of the natural and cultural features of the state. Prerequisite: Sophomore standing.

Geography 13. Regional World Geography. Two credits. A broad regional survey of the geographic areas of the earth (North America, South America, Australia, and New Zealand), with emphasis on the contrasts and similarities of the relations of man and environment among the different regions. Not open to Geography majors and minors. Prerequisite: Sophomore standing.

Geography 14. Regional World Geography. Two credits. Same as Geography 13, but covering Europe, Asia, insular Asia, and Africa. Not open to Geography majors and minors. Prerequisite: Sophomore standing.

Geography 26. North America. Three credits. Regional geography of the United States and Canada. Prerequisite: Sophomore standing.

Geography 51. Cultural Geography. Three credits. Principles of cultural geography; interpretation of population, settlement, agriculture, manufacturing, transportation, and trade; their areal association and differentiation. Prerequisite: Sophomore standing.

Geography 100. Africa. Three credits. 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.

Geography 101. Middle America. Two credits. Regional geography of Mexico, Central America, and the islands of the Caribbean.

Geography 102. Australia and the Pacific Islands. Three credits. Regional consideration of the advantages and limitations of the physical environment, population distribution, and economic development of Australia, and the islands of Melanesia, Micronesia, and Polynesia.

Geography 123. Latin American Development. Three credits. An interdepartmental course in the 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. Same as History 123, Latin American Studies 123, and Sociology 123. Prerequisite: Six hours of work in Latin American Studies content courses or the consent of the Latin American Studies adviser.

Geography 126. Historical Geography of the United States. Three credits. Influence of the geographic factors in the historical development of the United States.

Geography 127. Asia. Three credits. Study of the 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.

Geography 128. Europe. Three credits. The geographic regions of Europe.

Geography 129. South America. Three credits. A topical and regional analysis of the geography of South America.

Geography 130. The Soviet Union. Three credits. An evaluation of the human geography of the U.S.S.R. in terms of the natural environment, cultural background, and historical experience with an emphasis on regional diversity.

Geography 131. China. Three credits. Regional concept of physical and cultural characteristics of China with special emphasis on resources, population, and economic development.

Geography 151. Climatology. Three credits. An analysis of the weather elements; a description and interpretation of the climatic types of the world. Prerequisite: Geography 1 or 2, or consent of the instructor.

Geography 152. Landforms. Three credits. Form and origin of landforms; field trips in the local area to supplement classroom activities. Prerequisite: Geography 1 or 3, or consent of the instructor.

Geography 170. Transportation Geography. Three credits. Survey and analysis of carriers, terminals, and routes of the world, with emphasis on commodity flow and traffic patterns.

Geography 171. Geography of Domesticated Plants and Animals. Three credits. Historical study of the beginnings of agriculture and origins and dispersals of domesticated plants and animals in the world.

Geography 172. Industrial Geography. Three credits. The growth of industry in the nations of the world, with primary emphasis on northeastern United States, the industrial nations of northwest Europe and eastern Asia.

Geography 173. Urban Geography. Two or three credits. Same as Sociology 173. Agglomerated settlements and their causes; individual cities, their population, land use and livelihood structures; the relations between cities and their adjacent regions.

Geography 174. Agricultural Geography. Three credits. Characteristics, development, and location factors of world agricultural production, including both a topical and a regional analysis.

Geography 175. Mineral Resources. Three credits. Distribution and production of world mineral resources, including conservation principles.

Geography 176. Cartography. Four credits. Introductory principles of map construction, map interpretation, and map reproduction. Two hours lecture, four hours laboratory per week.

Geography 177. Air Photo Interpretation. Three credits. Characteristics of aerial photographs and their use in the analysis of cultural and physical phenomena of the earth. Two hours lecture, two hours laboratory per week.

Geography 178. Field Study. Two credits. Techniques and practices used in making geographical observations in the field; emphasis on analysis, recording, and mapping of natural and cultural phenomena at selected localities. Prerequisite: Geography 176, or consent of instructor.

Geography 179. Seminar. One credit. Problems of geography pertaining to concepts, methods, and practices, regional and topical. Prerequisite: Geography major with senior standing, or consent of instructor.

Geography 199. Special Work. Upper class students in Geography may, by agreement with the chairman of the Geography 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.

Geology

Courses in Geology are administered by the Geography Department.

Geology 4. Physical Geology. Five credits. Introduction to the study of minerals and rocks and processes which act upon and within the earth. Three hours lecture, four hours laboratory per week; field trips. Credit in this course can be used to meet the laboratory science requirements for a degree.

Geology 5. Historical Geology. Five credits. Survey of the history of the earth and life; with emphasis on the evolution of continents. Three hours lecture, four hours laboratory per week; field trips. Credit in this course can be used to meet the laboratory science requirements for a degree.

German

See **Foreign Language.**

History

Mr. Crow, chairman; Mr. Alltmont, Mr. Artigiani, Mr. Bard, Mr. Dietrich, Mr. Face, Mr. Fowler, Mr. Franklin, Mr. Gibson, Mr. Gillespie, Mr. Goldstein, Mr. Haines, Mr. Hays, Mr. Hogeland, Mr. Jenkins, Mr. Knowlton, Mr. Kremple, Miss Marion, Mr. Morrison, Mr. Nelson, Mr. Paul, Mr. Pistano, Mr. Rumsey, Mr. Sigmund, Mr. Soroka, Mr. Stielstra, Mr. Walker, Mr. Wrone, Mr. Zieger.

A. A major in History shall consist of at least 34 credits:

1. History 11-12 and twelve additional credits to consist of two two-semester sequences, selected from among the following: History 1-2, History 3-4, History 15-16.
2. If a student omits either the sequence History 1-2, or the sequence History 3-4, he shall elect six advanced credits in that area of history.
3. A total of at least eighteen advanced credits distributed as follows:

   a. A concentration of eight credits in one of the following fields:

      1. **European History:** History 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 119, 120, 128, 129, 130, 143, 144, 148, 149, 198, 199.

2. **Non-Western History:** History 121, 122, 123, 124, 131, 135, 136, 137, 138, 139, 140, 141, 142, 198, 199.
3. **United States History:** History 151, 153, 154, 155, 156, 157, 158, 160, 161, 162, 163, 164, 165, 166, 167, 168, 171, 172, 175, 176, 177, 178, 179, 180, 181, 183, 184, 198, 199.

b. At least eight advanced credits divided between the two fields not elected for concentration.

c. History 190, taken during the senior year.

4. If a degree is taken in secondary education, at least ten credits of U.S. History must be taken, including History 11-12.
5. Geography 2-3, Political Science 1, and Economics 11 are recommended as corollary courses, but are not required.

B. A minor in History consists of at least 24 credits:

1. History 11-12 and six additional credits to consist of one two-semester sequence selected from among the following: History 1-2, History 3-4, History 15-16.
   If a student omits the sequences History 1-2 and History 3-4, he shall elect six advanced credits in European History.
2. A concentration of six advanced credits in European, Non-Western, or United States History under A, 3a, above.
3. At least six advanced credits divided between the two fields not elected for concentration.

The adviser will assist the student in selecting a balanced program which will provide a rounded knowledge of the subject both in relation to time and location.

History 1-2. Medieval History. Each three credits. **1.** History of Europe from the fourth century to the twelfth century. **2.** History of Europe from the twelfth century to the sixteenth century. History 1 or consent of instructor is prerequisite to History 2.

History 3-4. Modern European History. Each three credits. **3.** History of Europe from the sixteenth century to the nineteenth century. **4.** History of Europe in the nineteenth and twentieth centuries.

History 11-12. United States History. Each three credits. **11.** History of the United States to 1865. **12.** History of the United States since 1865. Prerequisite: Sophomore standing.

History 15-16. East Asia. Each two or three credits. **15.** A survey of Far Eastern civilizations, their institutional and cultural development to the nineteenth century. **16.** The Far East in the nineteenth and twentieth centuries. Prerequisite: Sophomore standing.

History 101-102. History of Western Culture. Each three credits. The nature of civilization, the development of the practical and fine arts, of government and of human communication: **101.** From Prehistory through the Roman period. **102.** From the Roman period to contemporary times.

History 103-104. Economic History of Europe. Each three credits. Development of agricultural, commercial, and industrial institutions of Europe: **103.** From the fourth century to 1750. **104.** From 1750 to the present.

History 105. Greek History. Three credits. The history of Ancient Greece.

History 106. Roman History. Three credits. The history of Ancient Rome through the Republic and Empire.

History 107. Problems in the Early Middle Ages. Two or three credits. Selected problems of the Early Middle Ages, such as: manorial and feudal origins, the Pirenne thesis, church and state under Gregory VII, the Cluny movement; Charlemagne and the Papacy; includes research and preparation of a paper on a selected topic. Prerequisite: History 1, or consent of instructor.

History 108. Problems in the High Middle Ages. Two or three credits. Selected problems of the High Middle Ages, such as: the rise of Gothic art, church and state under Frederick II, the impact of the crusading movement, the rise of capitalism, the conciliar movement, Medieval English constitutional development; includes research and preparation of a paper on a selected topic. Prerequisite: History 2, or consent of instructor.

History 109. The Renaissance. Two or three credits. The politics, the arts, the literature, and recovery of the classics during the fourteenth and fifteenth centuries.

History 110. The Age of the Reformation. Two or three credits. The Protestant and Catholic reformations of the sixteenth and seventeenth centuries.

History 111. The French Revolution and Napoleon. Two credits. The revolutionary period in Europe and the beginnings of our modern democratic ideals.

History 112. History of France since 1815. Two credits. The political, economic, and cultural history of France from the Congress of Vienna to the present.

History 113-114. History of England. Each two credits. **113.** Tudor and Stuart England; the beginning of modern England, 1485-1714. **114.** England since 1714.

History 115. England in the Middle Ages. Three credits. History of England from Anglo-Saxon times to 1485.

History 116. Expansion of Europe, 1415-1660. Two or three credits. European powers and their colonies during the age of the great discoveries.

History 117. History of Germany, 1860 to date. Three credits. An analysis of Imperial and Republican Germany; also the National Socialist State and the period following World War II.

History 119. History of Recent World Politics. Three credits. Selected topics in world history, 1919 to the present. Prerequisite: History 4 and 12.

History 120. European Diplomatic History Since 1856. Two or three credits. A survey of the major problems in European Diplomacy from the Crimean War to the present day.

History 121-122. History of Latin America. Each two or three credits. **121.** Colonial Latin America from the discoveries to independence. **122.** Recent Latin America from independence to the present.

History 123. Latin American Development. Three credits. An interdepartmental course in the development, modernization, and institutions of Latin America; analysis of the factors influencing development. A sub-title will be added to the title to describe the focus each time the course is offered. Same as Geography 123, Latin American Studies 123, and Sociology 123. Prerequisite: Six hours of work in Latin American Studies content courses or the consent of the Latin American Studies adviser.

History 124. Independent Mexico. Two or three credits. The development of Mexico from the Wars of Independence to the present, with emphasis on the Reform Era and the Revolution of 1910.

History 128. The Medieval Church. Three credits. The history of Western Christianity in the Middle Ages.

History 129. Medieval Thought and Letters. Three credits. Intellectual history of Europe; fourth to fifteenth centuries.

History 130. Europe in the Age of the Crusades. Two credits. Europe and the Mediterranean world; the inception of European expansion; the Crusades and their consequences.

History 131. Africa South of the Sahara. Two credits. History of European contact with Africans in the nineteenth and twentieth centuries; policies of assimilation and separate development; the independence of African states; federation and pan-Africanism.

History 135-136. History of China. Each three credits. **135.** Chinese civilization, thought, and institutions to 1644; development of a Confucian state; the rise of gentry society; the influence of foreign invasions. **136.** China since 1644; political, social, economic, and cultural conflict of the Chinese with the West; the transition to Communist society.

History 137-138. History of Japan. Each three credits. **137.** Japanese culture and institutions to 1854; assimilation of Chinese influence; the development of feudalism; unification, Tokugawa control and the system of exclusion and seclusion. **138.** Japan since 1854; Western influence, modernization, the rise to world-power status, and imperialism; the rise of militarism, World War II, and post-war development.

History 139-140. History of Korea. Each three credits. **139.** Korean culture and institutions to 1800; Korea's pivotal role in East Asia; Chinese influence, unification and growth of the state; foreign invasions and domination. **140.** Korea since 1800; the end of isolation; power rivalries, Western influence and Japanese annexation; independence struggles, division, the Korean War and after.

History 141-142. Russian History and Civilization. Each three credits. **141.** From the tenth to the eighteenth century; an analysis of Kievan Russia, early Russian principalities, and the rise of Moscow, with emphasis on Byzantine and Mongolian influences. **142.** The nineteenth and twentieth centuries; Tsarist Russia, its background institutions and problems; a survey of the Communist Revolution, the USSR between the two World Wars, in World War II, and after.

History 143-144. Eastern and Central Europe. Each three credits. **143.** History of eastern and central Europe from origins to the Congress of Vienna. **144.** History of eastern and central Europe in the nineteenth and twentieth centuries.

History 148-149. History of Science. Each three credits. **148.** From the Greeks to Galileo; **149.** Since Galileo.

History 151. Representative Americans. Two credits. Prerequisite: History 11-12.

History 153-154. Constitutional History of the United States. Each two or three credits. **153.** Origin and elaboration of colonial political theories and practices; evolution of guarantees for personal liberty, constitutional development to 1877. Prerequisite: History 11, or consent of instructor. **154.** Constitutional development since the Civil War. Prerequisite: History 12, 153; or consent of instructor.

History 155-156. American Social and Intellectual History. Each two or three credits. The development of social and intellectual movements in the United States: **155.** To 1865. **156.** Since the Civil War.

History 157. Colonial Era. Two or three credits. History of the American Colonies to the American Revolution. Prerequisite: History 11.

History 158. Era of the American Revolution. Two or three credits. History of the transition from colony to republic, 1763-1787. Prerequisite: History 11.

History 160. The Era of Controversy. Two or three credits. The history of the United States from 1840 to 1860. Prerequisite: History 11.

History 161. Civil War and Reconstruction. Two or three credits. The history of the United States from 1860 to 1877. Prerequisite: History 11-12.

History 162. United States History, 1877-1917. Three credits. The age of enterprise, world power, and reform. Prerequisite: History 12.

History 163. United States History, 1917-1933. Two or three credits. World War, peace, normalcy, and depression. Prerequisite: History 12, or consent of instructor.

History 164. United States History, 1933-1945. Two or three credits. The New Deal, foreign policy, global war, and peace. Prerequisite: History 12, or consent of instructor.

History 165. United States History since 1945. Two or three credits. Diplomatic, political, economic, social, intellectual, and constitutional development since World War II. Prerequisite: History 12, or consent of instructor.

History 166. Wisconsin. Two or three credits. History of Wisconsin from 1634 to the present.

History 167-168. History of the South. Each three credits. **167.** The Old South. The social and cultural history of the South to 1865. Prerequisite: History 11, or consent of the instructor. **168.** The New South. The social and cultural history of the South since the Civil War. Prerequisite: History 11-12, or consent of instructor.

History 171-172. Economic History of the United States. Each three credits. **171.** American economic life through the Civil War. Prerequisite: History 11. **172.** Same as Economics 172. American economic life since the Civil War. Prerequisite: History 12.

History 175-176. History of American Diplomacy. Each three credits. **175.** The foundations of America's foreign policy during the late eighteenth and nineteenth centuries to 1881. Prerequisite: History 11-12 or consent of instructor. **176.** Relations of the United States with the rest of the world from 1881 to the present. Prerequisite: History 12, or consent of the instructor.

History 177. The Early National Period. Three credits. Framing and ratification of the Constitution; the Washington administration; the Hamilton program; the Adams Federalists; Jeffersonian democracy; the War of 1812.

History 178. The Age of Jackson. Three credits. The Era of Good Feelings; the election of 1824; J. Q. Adams; Jacksonian democracy; the nullification controversy; the Whigs; the Bank War; the later Jacksonians.

History 179. American Reform Movement. Two or three credits. A study of American ideas 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.

History 180. The American Frontier. Three credits. A study of westward expansion to the Mississippi Valley and frontier problems.

History 181. The American West. A study of westward expansion from the Mississippi Valley to the Pacific Ocean.

History 183-184. Negro Americans. Each three credits. A study of the contributions of black Americans to United States history, their institutional life, and the impact of society upon their development: **183.** from the colonial period to 1915. **184.** from 1915 to the present.

History 190. Great Historians and the Sense of History. Two credits. A study of the great historians and their conceptions of history based on readings from their works. Required of all senior his-

tory majors; open to others with the consent of department chairman.

History 198. Selected Historical Problems. Two credits. An integrative course for analysis of a selected problem(s) common to two or more areas or periods of history. Open to students with senior standing, majoring or minoring in History. Open to other seniors with the consent of the department chairman. The specific problem(s) to be treated will be announced in advance each semester.

History 199. Special Work. Upper class students majoring or minoring in History may, by agreement with the chairman of the History 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.

Home Economics

Mrs. Jones, chairman; Mrs. Baird, Miss Bunge, Mrs. Clifford, Miss Doris Davis, Miss Ditson, Miss Doescher, Mrs. Harvey, Miss Hill, Miss Horn, Miss McDonald, Miss Mizell, Mrs. Randall, Miss Sands.

A. A major in Home Economics in the College of Education consists of:

1. Core courses to total 23 credits as follows: Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
2. Additional required courses to total 17 credits: Home Economics 12, 16, 33, 123, 145, 153. (Home Economics 3 and 5 are also required unless the student is exempt by a proficiency test.)
3. Required collateral courses: Biology 1, 24; Chemistry 1 or 3, 10; Economics 11; Education 191.
4. Sociology 1 is recommended but not required.

B. A major in General Home Economics in the College of Applied Arts and Science consists of:

1. Core courses to total 23 credits as follows: Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
2. Electives in Home Economics to total at least 17 credits, selected with the consent of the chairman of the department.
3. Required collateral courses: Biology 1, 24; Chemistry 1 or 3, 10; Economics 11.

C. A major in Food and Nutrition in the College of Applied Arts and Science is available in four options:

I. General Food and Nutrition:

a. Core courses, 23 credits; Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
b. Seventeen credits selected from the following: Home Economics 5, 145, 146, 147, 148, 153, 155, 157, 177, 181, 183.
c. Required collateral courses, 30 credits: Biology 1, 24, 110; Chemistry 5-6 or 7-8, 10; Economics 11.

II. Dietetics:

a. Core courses, 16 credits selected from the following, with Home Economics 4 required: Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
b. Twenty-four credits selected from the following: Home Economics 5, 145, 147, 148, 153, 155, 157, 177, 183.
c. Required collateral courses, 34 credits: Biology 1, 24, 110; Chemistry 5-6 or 7-8, 10; Economics 11, Business 11.
d. Choice of one course each from 1 and 2, 5 or 6 credits:
   1. Business 170 or Psychology 17.
   2. Education 105Q or 111 or 112.

III. Food Service Management:

a. Core courses, 16 credits selected from the following, with Home Economics 4 required: Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
b. Twenty-four credits selected from the following: Home Economics 5, 145, 147, 148, 149, 153, 155 or 157, 177, 183.
c. Required collateral courses, 40 credits: Biology 1, 24, 110; Chemistry 5-6 or 7-8, 10; Economics 11; Business 11, 111, 170.
d. Choice of one of the following, 3 credits: Business 120, 140; Psychology 17; Economics 122.

IV. Experimental Food and Nutrition:

a. Core courses, 16 credits selected from the following, with Home Economics 4, 61, and 171 required: Home Economics 1, 2, 4, 11, 61, 166, 171, 185.
b. Twenty-four credits selected from the following: Home Economics 5, 145, 146, 148, 153, 155, 157, 181, or 183, and two credits of electives in Home Economics.
c. Required collateral courses, 30 credits: Biology 1, 24, 110; Chemistry 5-6 or 7-8, 10; Economics 11.
d. Choice of one of the following, 2 or 3 credits: Education 105Q, 111, 112; Economics 130.

Note: Fulfilling the degree requirements in options II, III, or IV, and completing an American Dietetics Association approved internship will satisfy the requirements for membership in the American Dietetics Association.

D. The Home Economics Department does not offer a teaching minor. However, a minor may be obtained in the College of Applied Arts and Science.

A minor in Home Economics consists of at least 24 credits in Home Economics, including Home Economics 1, 2, 4, 11, 61, 166, 171, and three credits of Home Economics electives.

A minor is not required in the College of Education of students majoring in Home Economics. However, a student may elect a minor in any field. If a minor is elected, the education techniques course in that minor should be taken. If a Chemistry minor is elected, Chemistry 5-6 or 7-8 should be substituted for Chemistry 1. If a Biology minor is elected, Biology 3-4 should be substituted for Biology 1.

E. Cooperative relations have been established with Merrill-Palmer Institute of Human Development and Family Life, Detroit, Michigan, to give home economics majors an opportunity to study there for one semester for which credit will be given at WSU-Stevens Point. Students must be seniors or second semester juniors, have a high academic record and be recommended by the home economics department chairman.

Areas of Study in Home Economics

Child Development and Family Relations: Home Economics 16, 61, 161, 166, 167, 190, 199.

Family Economics and Management: Home Economics 171, 181, 185, 190, 199.

Food, Nutrition, and Institutional Management: Home Economics 4, 5, 145, 146, 147, 148, 149, 150, 151, 153, 155, 157, 177, 183, 190, 199.

Housing and Interiors: Home Economics 1, 11, 12, 111, 190, 199.

Textiles and Clothing: Home Economics 2, 3, 33, 122, 123, 124, 129, 133, 190, 199.

Home Economics 1. Color and Design. Three credits. Fundamentals of color and design in relation to personal and home problems. One hour lecture, four hours laboratory per week. Students may not receive credit for both Home Economics 1 and Art 1.

Home Economics 2. Selection of Textiles And Clothing. Three credits. Economic, social, aesthetic, and psychological aspects of textiles and clothing for the individual and the family.

Home Economics 3. Clothing Construction. Two credits. Study and application of basic principles of clothing construction. Four hours laboratory per week. Prerequisite: Home Economics 2 or consent of the instructor.

Home Economics 4. Human Nutrition and Food Preparation. Three credits. Introduction to the field of food and nutrition; nutrients essential to human life and well-being; their functions in metabolism and their sources in food; application of this information to the significant relationship between food preparation, food habits, and health.

Home Economics 5. Human Nutrition and Food Preparation Laboratory. Two credits. Basic ingredients and techniques used in food preparation with emphasis on theory; food preparation stressing nutritive value and the management of money and time. Four hours laboratory per week. Prerequisite: Home Economics 4 or concurrent registration.

Home Economics 11. Housing and Home Furnishings. Three credits. Matrix aspects, regulations, psychological, and economic factors of housing; design elements applied to space relationships and furnishings to create a satisfying environment. Prerequisite: Home Economics 1 or Art 1.

Home Economics 12. Housing and Home Furnishings Laboratory. Two credits. Studio problems in housing and home furnishings; field trips. Four hours laboratory per week. Prerequisite: Home Economics 11 or concurrent registration.

Home Economics 16. Family Health and Home Care of the Sick. One credit. Principles of individual and family health techniques applicable to care of sick and injured at home. Prerequisite: Sophomore standing.

Home Economics 33. Textiles. Three credits. From fiber to finished fabric: recognition, testing, purchase, use, and care of textiles. Two hours lecture, two hours laboratory per week. Prerequisite: Sophomore standing.

Home Economics 61. Development of the Young Child. Three credits. Principles and research findings with implications for the guidance of young children in the home and in pre-school groups; observation at the pre-school laboratory. Two hours lecture, two hours observation per week. Prerequisite: Psychology 11.

Home Economics 111. Advanced Housing and Interior Design. Three credits. Advanced studies in the application of design theory and philosophy to the home, the furnishings, and the environment.

Home Economics 122. Clothing Economics. Three credits. Consumer clothing problems in relation to market conditions. Prerequisite: Home Economics 2; Economics 11.

Home Economics 123. Applied Dress Design. Three credits. Study, construction, and fitting of a basic pattern using design principles as applied to flat pattern drafting; construction of a garment. One hour lecture, four hours laboratory per week. Prerequisite: Home Economics 2, 33; or consent of the instructor.

Home Economics 124. Tailoring. Three credits. The application of tailoring techniques to the construction of a gar-

ment. One hour lecture, four hours laboratory per week. Prerequisite: Home Economics 123 or consent of the instructor.

Home Economics 129. History of Costume. Three credits. The history of costume from ancient times to the present day.

Home Economics 133. Experimental Textiles. Three credits. Standard procedures and equipment for testing fabrics; emphasis on research techniques. One hour lecture, four hours laboratory per week. Prerequisite: Home Economics 33; Chemistry 1 or 3; or consent of instructor.

Home Economics 145. Meal Planning and Serving. Three credits. Advanced food preparation with emphasis on meal planning, management and table service; each student has experience in demonstration and guest meal techniques. One hour lecture, six hours laboratory per week. Prerequisite: Home Economics 4; Chemistry 1 or 5 or 7.

Home Economics 146. Experimental Foods. Three credits. Application of scientific principles and experimental procedures in food preparation. One hour lecture, four hours laboratory per week. Prerequisite: Home Economics 4, Chemistry 1 or 5 or 7, and Biology 110; or consent of the instructor.

Home Economics 147. Organization and Management of Food Service. Three credits. Principles of organization and management with emphasis on financial and production controls in institution food service. Prerequisite: Home Economics 4 or consent of the instructor.

Home Economics 148. Quantity Food Production. Three credits. 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 hour lecture, six hours laboratory per week. Prerequisite: Home Economics 4, 183; or consent of the instructor.

Home Economics 149. Food Service Administration. Three credits. 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. One hour lecture, four hours laboratory per week. Prerequisite: Home Economics 147, 148; or consent of the instructor.

Home Economics 150. Social and Cultural Aspects of Food. Three credits. Foods and food customs of various regional, national, and ethnic groups. Two hours lecture, three hours laboratory per week.

Home Economics 151. Elementary Nutrition. Three credits. The food needs of the individual and the foods which supply those needs, with special emphasis on the food needs of children. Not to be counted toward a Home Economics major.

Home Economics 153. Nutrition. Three credits. Dietary standards for individuals of different ages, sexes, and occupations; the contributions which different foods make to body needs and the planning of balanced meals for the family at various cost levels. Treatment of disorders in nutrition. Prerequisite: Biology 24, Chemistry 10, Home Economics 4.

Home Economics 155. Diet Therapy. Three credits. Application of nutrition principles in the study of the dietary treatment of certain conditions and diseases. Two hours lecture, two hours laboratory per week. Prerequisite: Home Economics 4, 153; Chemistry 10.

Home Economics 157. Advanced Nutrition. Three credits. Chemistry of foods and nutrition and the inter-relationships in meeting the nutritional needs in humans. Two hours lecture, two hours laboratory per week. Prerequisite: Home

Economics 4, 153; Chemistry 10; or consent of the instructor.

Home Economics 161. Theory and Guidance of Play for Young Children. Three credits. Theory and guidance of play activities which provide for growth through art, music, dramatic play, science, and other materials. One hour lecture, four hours of participation in pre-school laboratory per week. Prerequisite: Home Economics 61 or consent of the instructor.

Home Economics 166. Family Relationships. Three credits. Interpersonal relationships within the family at all stages in the life cycle. Prerequisite: Psychology 11 or consent of the instructor.

Home Economics 167. Parent Education. Two or three credits. Principles, procedures, and current research implications for working with parents and families. Prerequisite: Home Economics 161 or consent of the instructor.

Home Economics 171. Family Economics and Management. Three credits. Factors important in individual and family buying; evaluation of consumer information; basic ideas of management and economics in relation to effective use of available resources of the home, the community, and the economy. Prerequisite: Home Economics 2, 4 and Economics 11; or consent of the instructor.

Home Economics 177. Institution Purchasing. Two credits. Principles and methods of purchasing food in quantity. One hour lecture, two hours laboratory per week. Prerequisite: Home Economics 4 or consent of the instructor.

Home Economics 181. Equipment for the Home. Two credits. Selection, use, and care of household equipment. Lecture and laboratory, four hours per week. Prerequisite: Home Economics 171 or consent of the instructor.

Home Economics 183. Institution Equipment and Layout. Two credits. Selection, arrangement, installation, use, and care of various types of equipment and furnishings for institutional food service departments. Lecture and laboratory, four hours per week. Prerequisite: Home Economics 4 or consent of the instructor.

Home Economics 185. Home Management. Two credits. Emphasis on personal development and group relationships through living as a family; experiences in management of human and material resources. Residence in Home Management House open to seniors and second semester juniors; one class period per week. Prerequisite: Home Economics 145.

Home Economics 190. Workshop in Home Economics. One to four credits. Workshop techniques applied to various curricular areas in Home Economics. A subtitle will be added to describe the area considered each time the course is offered.

Home Economics 199. Special Work. Upper class students majoring in Home Economics may, by agreement with the Chairman of the Home Economics 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.

Institutional Management

See **Food Service Management,** Home Economics Department.

Journalism

Mr. Houlihan.

Journalism 15. Introduction to Reporting. Three credits. Fundamentals of recognizing, gathering, organizing, and presenting news, including some comparative study of representative United States newspapers. Prerequisite: Sophomore standing.

Journalism 16. News Editing. Three credits. Study and practice in editing general copy, editorials, features, and sports. Prerequisite: Sophomore standing.

Journalism 20. Survey of Mass Media in America. Three credits. Same as Speech 20. Survey and analysis of the history, regulation, scope, social implications, and problems of the mass communications media. Prerequisite: Sophomore standing.

Journalism 25. Publicity Media and Methods. Three credits. Publicity methods applied to the problems of business, community service agencies, and education institutions; journalistic techniques of major communications media applied to such public relations devices as publicity releases, feature stories, letters, informational pamphlets, and other materials. Prerequisite: Sophomore standing.

Journalism 45. History of American Journalism. Three credits. The evolution of journalism in the United States and its relations to political, social, and economic trends. Prerequisite: Sophomore standing.

Journalism 95. Journalism Laboratory. Two credits. Practice in all newspaper functions by working on the staff of the university newspaper, "The Pointer;" experience in reporting, copy writing, proofreading, photography, advertising methods, and layout. Six hours work per week. Prerequisite: Consent of instructor.

Journalism 100. Feature Article Writing. Three credits. Preparation of special articles for newspapers and magazines on technical, scientific, social, and economic subjects.

Journalism 120. Teaching Journalism and Supervising School Publications. Three credits. High school and college publications and correlation of journalism classes to teaching methods; problems of newspapers and yearbooks; designed for prospective journalism teachers and school publications advisers.

Latin American Studies

Mr. Knowlton, adviser.

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: Art 192 (History of Latin American Art); Geography 101 (Middle America); Geography 129 (South America); History 121 (Colonial Latin America); History 122 (Recent Latin America); History 124 (Independent Mexico); Political Science 163 and 164 (Government and Politics of Latin America); Spanish 132 (Latin American Civilization); Spanish 142 (Survey of Spanish American Literature); Latin American Studies 199 (Special Work—1 to 3 credits).

2. The remaining credits shall be in related, non-language courses chosen in consultation with the Latin American Studies adviser.

3. In addition, four semesters of college Spanish beyond the first year level are required and may include Spanish 132 and 142.

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 adviser.

Eight credits of Spanish beyond the first year level are strongly recommended.

Latin American Studies 123. Latin American Development. Three credits. 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. Same as Geography 123, History 123, and Sociology 123. Prerequisite: Six hours of work in Latin American Studies content courses or the consent of the Latin American Studies adviser.

Latin American Studies 199. Special Work. Upper class students majoring or minoring in Latin American Studies may, by agreement with the Latin American 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.

Lecture-Forum Course

Mr. Lehman in charge.

Lecture Forum 1-2; 101-102. Lecture-Forum Course. Each one credit. A series of weekly 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 requisite for "Pass."

Library Science

Mr. Kremple, chairman; Mrs. Bard, Mr. Gillesby, Mr. Kampenga, Mr. Lea, Miss Mason, Miss Padden, Mr. Ransom, Mrs. Steffen.

A. A minor in Library Science consists of 22 credits:

1. Required courses: Library Science 22, 23, 104, 105, and 195; English 21 or 23 and 104; Education 131.
2. Additional credits selected from the following to total 22 credits; Library Science 151, 199, and Bibliography 51.

Students completing the minor will be eligible for state certification as school librarians. The sequence of Library Science 22, 23, 104, and 151 meet the standard entrance requirements for graduate work in Library Science.

Library Science 22. Introduction to Reference. Two or three credits. Materials of reference that are the basis of a library reference collection and service, and practice in their use as a source of information and an aid to study and teaching. Prerequisite: Sophomore standing.

Library Science 23. Building Library Collections. Two or three credits. Reading interests and study needs of people, with particular emphasis on elementary and secondary school problems; study and practice in the use of book reviewing mediums, the book selection aids, basic

bibliographies, and book trade guides essential to a library's acquisition of materials. Prerequisite: Sophomore standing.

Library Science 104. Introduction to Cataloging and Classification. Three credits. Meaning, purpose and value of cataloging and classification of library materials with particular emphasis on school library application; laboratory practice in the technical and mechanical processes which are essential in making materials more serviceable to readers. Prerequisite: Library Science 22 and 23, or consent of the instructor.

Library Science 105. The School Library. Two or three credits. The function of the library in the school, stressing the responsibilities of the library in carrying out the aims of the school program, problems of support, housing, standards of service, and student service.

Library Science 151. Library Operations and Management. Two credits. A study of typical library operations in the areas of technical and public services; establishment of library objectives in these areas and the application of management principles for their achievement.

Library Science 195. Practicum. One or two credits. Practical field experience in the operation of library functions under the supervision of cooperating librarians. Practicum credits may be earned as part of requirements for Education 198 (Student Teaching) or by other arrangements approved by the Chairman of Library Science and the Education Department. Credits will be granted on the same basis of hour work as established for Education 198.

Library Science 199. Special Work. Students minoring in Library Science may with approval of the chairman of the Library Science curriculum 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 Library Science minor requirements.

Mathematics

Mr. Charles Johnson, chairman; Mr. Boylan, Mr. Kenneth Brown, Mrs. Nancy Brown, Mr. Cable, *Mrs. Carlson, Mr. Cary, Mrs. Chander, Mrs. Christie, Mr. Conlon, Mrs. Eagon, Mr. John Johnson, *Mr. Liu, Mr. Mages, *Mr. Miller, Mr. Olson, Mr. Rice, Mr. Schoenecker, Mr. Thoyre, Miss Treuenfels, Mr. Weiler, Mr. Wild. (*On leave.)

A. **A major in Mathematics** consists of Mathematics 7, 9, 11, 12 (or equivalent), and at least 18 credits in courses numbered 100 or above. (For students entering with advanced standing in mathematics, Mathematics 9 will be the initial course.)

   A student must present and maintain a minimum of a 2.0 grade point average in mathematics for acceptance and retention as a mathematics major. Students not meeting this standard may petition the department chairman for consideration.

   A maximum of 3 credits from among the 18 credits required in courses numbered 100 or above may be at the D level. For each additional credit with grade of D the student must earn additional compensating credit with a grade of at least C.

B. **A minor in Mathematics** consists of Mathematics 7, 9, 11 (or equivalent), and at least 10 credits from among these courses: Mathematics 12 and courses numbered 100 or above. (For students entering with advanced standing in mathematics, Mathematics 9 will be the initial course.)

Any exceptions to the above requirements must be approved by the chairman of the department.

Definition: An acceptable high school unit in mathematics is one year's work with a grade of C or better, excluding "general mathematics."

General requirement: One semester of college mathematics is required for the Bachelor of Science degree in the College of Letters and Science. Exemption will be granted if the student presents two and one-half acceptable units of high school mathematics.

In the other colleges the student has a choice between one semester of college mathematics or one year of a foreign language. Exemption will be granted if the student presents two and one-half acceptable units of high school mathematics or two acceptable units of a foreign language.

Mathematics 1. Basic Mathematics. Four credits. A one-semester course designed to give the student with little or no background a knowledge of mathematics as a language. Open only to those who present less than two acceptable units of high school mathematics. Not to be counted toward a Mathematics major or minor.

Mathematics 2. Essentials of Mathematics. Four credits. A one-semester course presenting mathematics as a language, designed for students who have some background in mathematics as evidenced by their high school record. Not to be counted toward a Mathematics major or minor.

Mathematics 5. Algebra and Trigonometry. Four credits. A beginning college course in algebra and trigonometry. Prerequisite: One acceptable unit each of high school algebra and geometry, or consent of the chairman of the department in case the student has lesser background. Not open to students who qualify for Mathematics 7.

Mathematics 6. Trigonometry and Analytic Geometry. Four credits. A continuation of Mathematics 5 with emphasis on trigonometry and plane analytic geometry. Prerequisite: Mathematics 5, or consent of the chairman of the department. Not open to those who qualify for Mathematics 9.

Mathematics 7. Integrated Algebra and Trigonometry. Four credits. Axiomatic development of the number system and algebraic operations; concepts of trigonometry essential to subsequent mathematics courses. Prerequisite: Three acceptable units of high school mathematics or consent of the chairman of the department in case the student has lesser background.

Mathematics 9. Analytic Geometry and Calculus I. Four credits. Analytic geometry of the plane; differentiation and integration of algebraic functions with some application; differentiation of transcendental functions. Prerequisite: Mathematics 6 or 7, or four units of high school mathematics with a grade of B or better.

Mathematics 10. Mathematics of Finance. Four credits. Simple and compound interest equivalence, annuities, amortization, sinking funds, bonds, depreciation, life insurance. Not to be counted toward a Mathematics major or minor, or toward the general requirements for a degree. Prerequisite: Mathematics 5 or 7, or eligibility for Mathematics 9.

Mathematics 10S. Mathematics of Finance. Three credits. Similar to Mathematics 10, treating such topics as interest, annuities, amortization, bonds, depreciation, etc. It is shortened and designed for teachers and others who are interested in the application of mathematics to the field of elementary finance. Summer Sessions only. Not to

be counted toward a Mathematics major or minor, or toward the general requirements for a degree. Prerequisite: One semester of college algebra, or consent of instructor.

Mathematics 11. Analytic Geometry and Calculus II. Four credits. Analytic geometry of the plane continued; integration techniques; additional applications. Prerequisite: Mathematics 9.

Mathematics 12. Analytic Geometry and Calculus III. Four credits. Introduction to solid analytic geometry; differentiation of functions of several variables; multiple integrals; series of functions and applications. Prerequisite: Mathematics 11.

Mathematics 20. Elementary Surveying. Four credits. Theory and practice in measuring distances; introduction to the use of level, transit, plane table, and compass; principles of land survey and map making; two hours lecture, six hours laboratory per week. Not to be counted toward a Mathematics major or minor, or toward the general requirements for a degree. Prerequisite: Mathematics 5, or 7.

Mathematics 25. Elementary Mathematical Statistics. Three credits. Mathematical theory of the analysis of data; frequency distributions, averages, dispersion, reliability, probability, normal curve, moments, regression lines, index numbers, simple and multiple correlation, and curve fitting. Prerequisite: Mathematics 5 or 7.

Mathematics 29. Introduction to Computer Programming. Three credits. Stored program concept, flow diagrams, programming techniques; machine language, Fortran; numerical iteration, solution of elementary equations. Two hours lecture, two hours laboratory per week. Prerequisite: Mathematics 5 or consent of department chairman.

Mathematics 31. Calculus I. Four credits. Differentiation and integration of algebraic functions with applications to rate, maxima, minima, motion, areas, volumes; differentiation of trigonometric functions and applications. Prerequisite: Mathematics 6 or consent of the department chairman.

Mathematics 32. Calculus II. Four credits. A continuation of Mathematics 31, with emphasis on the differentiation and integration of transcendental functions; methods of integration and application of the calculus to mechanics, volumes, area, arc length, polar representation; approximate integration; introduction to partial differentiation and multiple integration. Prerequisite: Mathematics 31.

Mathematics 106. Solid Mensuration and Spherical Trigonometry. Three credits. Fundamentals of solid geometry in a new comprehensive manner; practical essentials of spherical trigonometry. Prerequisite: Mathematics 5 or 7.

Mathematics 109. College Geometry. Three credits. Advanced topics in Euclidean geometry with emphasis on the postulational method, properties of the triangle, circle, inversion and recent geometry of the triangle; of special interest to teachers of geometry. Prerequisite: Mathematics 6 or 7.

Mathematics 110. Non-Euclidean Geometry. Three credits. The historical and logical development of hyperbolic and elliptic geometry. Prerequisite: Mathematics 11 or 31.

Mathematics 111. Theory of Equations. Three credits. Real and complex numbers; theorems concerning roots, coefficients, transformations of algebraic equations; methods of solution and of approximating the roots of equations; systems of linear equations. Prerequisite: Mathematics 11 or 31.

Mathematics 112. Advanced Analytic Geometry. Three credits. Advanced topics in plane analytic geometry and a treatment of solid analytic geometry. Prerequisite: Mathematics 11 or 31.

Mathematics 115. Concepts of Modern Elementary Mathematics. Four credits. Basic structures and concepts of arithmetic, algebra, and geometry from the modern viewpoint. This course fulfills the general requirements for mathematics. Not to be counted toward a mathematics major or minor.

Mathematics 115E. Concepts of Modern Elementary Mathematics. Three credits. Basic structures and concepts of arithmetic, algebra, and geometry from the modern viewpoint. Offered in extension classes only.

Mathematics 118. Foundations of Analysis. Three credits. The basic concepts of modern analysis; sets and mappings, connected sets, neighborhoods, open and closed sets, cluster points, compactness, continuity and uniform continuity. Prerequisite: Mathematics 11 or 32.

Mathematics 119. Advanced Calculus. Three credits. Advanced treatment of infinite series, partial derivatives, exact differentials, lines, surface, and volume integrals, and generalized integrals. Prerequisite: Mathematics 12 or 32.

Mathematics 120. Differential Equations. Three credits. An introductory course treating ordinary differential equations of the first and second orders; linear equations with constant co-efficients; solution in series; numerical approximations; and systems of ordinary equations, with certain applications. Prerequisite: Mathematics 12 or 32.

Mathematics 121. Vector Analysis. Three credits. Vector algebra; vector calculus; gradient, divergence, and curl; divergence theorem; Stokes' theorem; line and surface integrals; introduction to tensor analysis; applications. Prerequisite: Mathematics 12.

Mathematics 122. Abstract Algebra. Three credits. Introduction to modern algebra; elements, sets, mapping, and operations; integral domains, fields, and polynominal domains; a modern development of the number systems through the complex number field. Prerequisite: Mathematics 11 or 31.

Mathematics 125. Probability and Statistics. Three credits. An introduction to probability from a set-theoretic viewpoint; permutations and combinations; probabilities in discrete sample spaces; random variables and the probability functions; the properties of distributions. Prerequisite: Mathematics 11 or 31.

Mathematics 126. Mathematical Statistics. Three credits. Probability, frequency functions, Type I and Type II errors, empirical frequency distributions, moments, binomial, normal, Poisson, Student T, Chi-Square distributions; correlation and regression, tests of hypotheses; applications. Prerequisite: Mathematics 12.

Mathematics 129. Numerical Analysis. Three or four credits. Ordinary finite differences, divided and central differences, inverse interpolation and solution of equations, linear systems and matrices, solutions of linear equations. Prerequisite: Mathematics 11.

Mathematics 130. Matrix Algebra. Three credits. Operations with matrices, properties and evaluation of determinants, applications of matrices and determinants, linear dependence, vector spaces, and linear and orthogonal transformations. Prerequisite: Mathematics 11 or 31.

Medical Technology

Mr. Weaver, adviser.

A Bachelor of Science Degree with a major in Medical Technology may be received by students who complete the following course of study:

A. **Freshman year:** Chemistry 7*-8; Mathematics 5-6 or 7 or 9; English 1-2 or equivalent; Social Studies (6 credits); Physical Education 1 or 3.

Sophomore year: Chemistry 21-22 and 24; Biology 4; Physics 3-4 or 10-11-12; History 11-12; Speech 1; Physical Education 2 or 4.

Junior year: Chemistry 110; Biology 24, 110, and 160; Social Studies (3 credits); Humanities (9 credits); Electives (2-3 credits); Physical Education 11.

*Chemistry 8 is required, but there are other freshman chemistry sequences open to students with high school preparation inadequate to qualify them for Chemistry 7. These sequences are 5-7-8, 5-6-8, and 1(or3)-7-8.

B. Following completion of the courses listed in A, the student will serve a twelve-month internship in an approved hospital School of Medical Technology.

Upon successful completion of part A with overall grade point average of 2.25 and of part B, and upon recommendation of the university faculty and the director of the hospital school, the student is awarded a Bachelor of Science degree with a major in Medical Technology.

Military Science (ROTC)

Lt. Col. O'Keefe, chairman; Major Leister, Captain Shepard, Captain Carey, Sergeant Major Bishop, Master Sergeant Goree.

The Military Science Department offers training leading to a commission as an officer in the United States Army Reserve. This training is designed to prepare students to enter the military service in a leadership capacity as commissioned officers and to lay the foundation for future Army leaders in time of emergency. Such training is provided concurrently with the regular undergraduate curriculum during the four or more years of study required for a Bachelor's degree. During freshman registration all interested male freshmen will be offered a voluntary orientation on the Reserve Officers Training Corps (ROTC), at which time the military science program will be explained.

The four-year curriculum will provide for a progressive course of military training consisting of two years basic and two years advanced study.

Advanced study students are paid $50 subsistence allowance for each month they are enrolled in the advance course, except for a six week period at summer camp when the student is paid at the rate of one-half of a second lieutenant's pay. This six week summer camp is required of all advanced study students and is normally held at Fort Riley, Kansas, between the junior and senior years.

A student may enroll in the Army ROTC two-year Program at the beginning of his junior year. To qualify, a student must make application during his sophomore year, be selected by a committee composed of military and civilian members of the faculty, and attend a paid "Basic" summer camp for six weeks during the summer following his sophomore year. The ROTC curriculum for the two-year program is the same as the curriculum for the last two years of the four-year program.

Deferments from selective service may be given to students participating in the program.

In order to qualify for a commission under the four-year program, the following courses must be taken:

Basic course: Military Science 1-2, 7-8, 11, 12, 17-18
Advanced course: Military Science 101, 102, 107-108, 151, 152, 153, 157-158.

Military Science 1-2. United States Defense Establishment. Each one credit. Analysis of U.S. Army organization, its missions and functions in peace and wartime; principles of war and its changing aspects; goals, factors, and instruments that influence national power, their implications, and the objectives of national security and defense. Prerequisite: Consent of the chairman of the department.

Military Science 7-8. Leadership Laboratory. No credit. Fundamentals of leadership, drill, and exercise of command; military courtesy, discipline, and esprit de corps. Prerequisite: Consent of the chairman of the department.

Military Science 11. Operations and Tactics. Two credits. Utilization of maps and aerial photographs to include terrain appreciation and evaluation; principles of offensive and defensive combat stressing fire and maneuver, communications, and command control. Prerequisite: Consent of the chairman of the department.

Military Science 12. United States Military History. Two credits. A study of American military history emphasizing factors which contributed to the development of military art as practiced by the U.S. Army. Prerequisite: Consent of the chairman of the department.

Military Science 17-18. Leadership Laboratory. No credit. Continuation of Military Science 7-8; emphasis on functions, duties, and responsibilities of junior military leaders. Prerequisite: Consent of the chairman of the department.

Military Science 101. Leadership and Teaching Principles. Two credits. Principles, objectives and techniques of leadership and methods of instruction; functions of the leader and special problems in military leadership and methods of instruction. Prerequisite: Consent of the chairman of the department.

Military Science 102. Command and Control. Three credits. Techniques of directing and coordinating individual and military team efforts; functions of various branches in their support of the Army and its field forces; analysis of the military communications system and fundamentals of internal defense/development. Prerequisite: Consent of the chairman of the department.

Military Science 107-108. Leadership and Management I. No credit. Application of principles of leadership to the problems of platoon leaders and company commanders; development of leadership potential by participation in planning and conducting drill and ceremonies. Prerequisite: Basic course, or basic summer camp, and consent of the chairman of the department.

Military Science 151. Operations, Logistics, and Administration. Three credits. Advanced instruction in management skills; processes for arriving at sound and timely decisions and translating these decisions into plans and combat orders; principles of administration and logistics. Prerequisite: Consent of the chairman of the department.

Military Science 152. Military Law. One credit. Fundamental concepts of military justice in the armed forces of the United States. The requirements for a separate body of law for the military. Prerequisite: Consent of the chairman of the department.

Military Science 153. United States in World Affairs. One credit. The United States and its position in the international affairs of the world today, emphasizing analysis of power factors, compet-

ing powers, and power blocs, alliances commitments, and their impact on the armed forces. Prerequisite: Consent of the chairman of the department.

Military Science 157-158. Leadership and Management II. No credit. Practical experience in the management of personnel through performance as a cadet officer in the conduct of formal drill and ceremonies; participation in planning and supervision of cadet activities. Prerequisite: Consent of the chairman of the department.

Music

Mr. Greene, chairman; Miss Aber, Mr. Baird, Mr. Beeler, Mr. Dean Blair, Mr. Theodore Brown, Mr. Cohan, Mr. Dick, Mr. Duggan, Mrs. Gerson, Mr. Goan, Mrs. Greene, Mr. Marple, Mr. McLott, Miss Merena, Mr. Punke, Mr. Rupert, Mr. Schroeder, Mr. Kenyard Smith, Mr. Thomas, Mr. Van Nuys, Mr. Westbrook.

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 members of the Music faculty. Information as to the date, time, and other details may be obtained from the chairman of the Music Department.

These scholarships are awarded for four years contingent upon maintenance of a satisfactory record. They are valued at $400. This amount offsets the cost of two courses in individual applied music per semester for eight semesters: one course in the student's major performing medium and one in his minor performing medium.

In order to remain eligible for the scholarship, the student must: 1. Major in Music; 2. Carry at least the normal study load of 15 semester hours; 3. Maintain a semester average of 2.00 in academic subjects and 3.00 in music subjects; and 4. Participate in at least two major ensembles (band, orchestra, choir).

A student who loses a scholarship through failure to fulfill these conditions may apply for renewal of the scholarship after the lapse of one semester, provided he can again fulfill the conditions at that time. Such renewal may be made only once.

The following **organizations** are **open to all students,** on either a credit or an extracurricular basis: **Band, Brass Choir, Girls' Glee Club, Choir, Madrigals, Opera Workshop, Oratorio Chorus, Chamber Orchestra, Woodwind Ensemble.**

The Curriculum for the Bachelor of Music Degree

I. English and Speech:

A. English 1-2 or equivalent, 6 credits.

B. Speech 1, 2 credits.

II. History 1-2, or 3-4, or 11-12; 6 credits.

III. One of the following:

A. Foreign Language, 8 credits.
This requirement may be satisfied by two acceptable units of high school work completed in one language. An acceptable unit is one year's work with a grade of C or better. The equivalent of one year of college work must be completed before credit will count toward graduation.

B. Mathematics, 4 credits.
This requirement may be satisfied by two and one-half acceptable units of high school mathematics. An acceptable unit is one year of work with a grade of C or better, excluding "general mathematics."

IV. Social Studies, 9 credits.

Work in the social studies must include courses in at least two of the following fields: cultural geography, economics, history (in addition to II, above), political science, psychology, Natural Resources 190.

V. Natural Science, 10 credits.

A continuous year course in one science, or two of the one-semester science courses numbered 1.

VI. Humanities, 9 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. Literature. Any literature course may be used to satisfy this requirement; except that if Introduction to Literature, or 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.

VII. Physical Education, 4 credits.

Physical Education 1 or 3 will be taken in the freshman year, 2 or 4 in the sophomore year, 11 in the junior year, and 12 in the senior year.

Students are required to register according to the above instructions. Students who believe they have medical or other grounds for exception must present their claims to the Physical Education Department after registration.

VIII. Music and Education courses as specified in paragraphs A, B, C, or D below; and approved electives to total at least 120 credits in addition to required physical education (total: 124). A minimum of 40 credits must be selected from courses numbered 100 or above.

A. Bachelor of Music Degree.

All general requirements listed above will be completed along with the following credits in Music:

1. Theory, 12 credits from: Music 10, 11, 20, 21, 30.
2. Theory electives, 4 credits: Music 113, 130, 131.
3. Applied music, 12 credits. (Piano, when not the major applied area, must be taken for 4 credits or to grade 3, whichever is reached first.) A proficiency grade of 5 must be earned on the major instrument before graduation.
4. Ensemble, 8 credits.
5. Music literature, 16 credits: Music 23, 24, 140, 141, and 6 credits of electives.
6. Music electives from at least two of the following groups, 8 credits:
   a. Music 30, 110.
   b. Music 7J to 7X.
   c. Music 5G to 5Z.

B. Bachelor of Music Degree in the College of Education.

All general requirements listed above will be completed along with the following credits in Education and Music:

1. Education, 20 credits: Education 104N, 105S, 111, 112, 198.
2. Music, 62 credits, in either a. or b. below:

a. Instrumental emphasis.

1. Theory, 9 credits, from: Music 10, 11, 20, 21, 30.
2. Instrumentation, 2 credits: Music 130.
3. Keyboard harmony, 2 credits: Music 18.
*4. Applied music (major), 10 credits.
5. Music literature, 10 credits: Music 23, 24, 140, 141.
6. Class applied music, 12 credits: (Music 7J, L, M required).
7. Conducting, 2 credits: Music 108.
8. Ensembles:
   Major, 7 credits: Music 4P, 14P, 104P; or Music 4N, 14N, 104N.
   Minor, 2 credits: Music 4K, 14K, and/or 104K; or Music 4N, 14N, and/or 104N.
9. Music electives, 6 credits from: Music 21, 30, 106, 113, 118, 131, 135, 144, 151, 152, 153, 154.

b. Vocal emphasis.

1. Theory, 9 credits from: Music 10, 11, 20, 21, 30.
2. Keyboard harmony, 2 credits: Music 18.
*3. Applied music (major), 10 credits: Voice, piano, or organ.
**4. Applied music (minor), 6 credits.
5. Music literature, 10 credits: Music 23, 24, 140, 141.
6. Class applied music, 4 credits: Music 7L, M.
7. Conducting, 2 credits: Music 108.
8. Ensembles:
   Major, 7 credits: Music 4K, 14K, 104K.
   Minor, 2 credits: Music 4N, 14N, and/or 104N.
   Opera, 2 credits: Music 4J, 14J, and/or 104J.
9. Music electives, 6 credits from: Music 21, 30, 106, 113, 118, 130, 135, 144, 151, 152, 153, 154.

*A proficiency grade of 5 must be earned on the major instrument before student teaching. When piano is not the major applied area, it will automatically be the minor applied area. A piano proficiency of grade 4 is required for the vocal emphasis, and a piano proficiency grade of 3 is required for the instrumental emphasis.

**If voice is not the major applied area, it must be the minor applied area.

C. Bachelor of Music Degree in Applied Music.

All general requirements listed above will be completed along with 72 to 74 credits in Music in one of the following options: (The Natural Science requirement may be met in part or entirely with acceptable work in high school science courses.)

1. **Piano.** Students will be admitted to this program 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 5G, 4 credits; Music 15G, 105G, 24 credits.

b. Theory, 18 credits: Music 10, 11, 20, 21; and 6 credits from 30, 108, 110, 113, 130, 131.
c. Music literature and history, 16 credits: Music 23, 24, 121, 122, 140, 141.
d. Piano pedagogy, 2 credits: Music 135.
e. Ensemble, 8 credits.

2. **Voice.** Students will be admitted to this program 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 5J, 4 credits; Music 15J, 105J, 24 credits.
   b. Theory, 17 credits: Music 10, 11, 20, 21, 108; and 3 credits from 30, 110, 113.
   c. Music literature and history, 16 credits: Music 23, 24, 123, 124, 125, 140, 141.
   d. Vocal pedagogy, 2 credits: Music 136.
   e. Vocal ensemble, 9 credits.

3. **String instrument.** Students will be admitted to this program by audition only; they must reach a proficiency grade of III in piano and VII in the major instrument, and give a senior recital.

   a. Applied music, 28 credits: Music 5L, M, N, or P, 4 credits; 15/105L, M, N, or P, 24 credits.
   b. Theory, 22 credits: Music 10, 11, 20, 21, 108, 130; 6 credits from 30, 110, 113, 131.
   c. Music literature and history, 10 credits: Music 23, 24, 140, 141.
   d. Ensemble, 12 credits.

4. **Wind instrument.** Students will be admitted to this program by audition only; they must reach a proficiency grade of III in piano, and give a senior recital.

   a. Applied music, 28 credits: Music 5Q-Z, 4 credits; 15Q-Z, 105Q-Z, 24 credits.
   b. Theory, 22 credits: Music 10, 11, 20, 21, 108, 130; and 6 credits from 30, 110, 113, 131.
   c. Music literature and history, 10 credits: Music 23, 24, 140, 141.
   d. Brass or woodwind pedagogy, 2 credits: Music 137 or 138.
   e. Ensemble, 12 credits.

5. **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 5, 15, 105 in any area.
   b. Theory, 37 credits: Music 11, 18, 19, 20, 21, 30, 31, 110, 111; *113 K, L, M, N; 130, 131.
      *Theory-oriented majors will elect a senior year project rather than the last four credits of Music 113.
   c. Class applied music, 4 credits: Music 7L-X.
   d. Music literature and history, 10 credits: Music 23, 24, 140, 141.
   e. Ensemble, 8 credits.

D. Bachelor of Music in Music Literature.

All general requirements listed for the Bachelor of Science Degree in the College of Letters and Science will be completed along with the following credits in Music:

1. Theory, 12 credits from: Music 10, 11, 20, 21, 30.
2. Theory electives, 4 credits: Music 113, 130, 131.
3. Applied music (major), 12 credits. A proficiency grade of 5 must be earned on the major instrument before graduation. If piano is not the major instrument, a proficiency grade of 4 on piano is required, in addition to the proficiency on the major instrument.
4. Ensemble, 8 credits.
5. Music literature, 24 credits: Music 23, 24, 140, 141, 151, 152, 153, 154, and 2, 144, or 155.

E. A minor in Music consists of 22 credits, as follows:

1. Music 10, 11, 23, 24; 10 credits.
2. Six credits of Music 5 and 15.
3. Six credits of electives from at least two of the following groups:
   a. Music 4K, 4P, 4N, 17K.
   b. Music 141, 144, 151, 152, 153, 154.
   c. Music 20, 21, 30.

Music 1. Appreciation and History of Music. Three credits. A survey of the development of music, stressing the elements of musical 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.

Music 2. American Music. Two credits. A survey of music from the time of the Pilgrims to the present, with special emphasis on Jazz and its influence on contemporary music.

Music 4. First Year Ensemble. Each one credit. Admission by try-out. **4H-Oratorio Chorus** (preparation and performance of major choral works); **4J-Opera Workshop; K-Choir; L-Women's Glee Club; M-Men's Glee Club; N-Chamber Orchestra; P-Band.**

Music 5. Beginning Applied Music. Each two credits. **5G-Piano; H-Organ; J-Voice; K-Percussion; L-Violin; M-Viola; N-Cello; P-Bass; Q-Clarinet; R-Flute; S-Oboe; T-Bassoon; U-Saxophone; V-Trumpet; W-Horn; X-Baritone; Y-Trombone; Z-Tuba.**

Music 7. Class Applied Music. Each two credits. The elements of each medium listed, taught by class participation and observation; two hours per week. **7G-Piano; J-Voice; K-Percussion; L-Violin; M-Low Strings; Q-Clarinet; S-Conical and Double Reeds; T-Trumpet; X-Low Brass.**

Music 10-11. Elementary Theory. Each three credits. **10.** Fundamentals of music; intervals, scales, meters, rhythms, and triads; basic musicianship training, sight-singing, dictation, and keyboard. **11.** Continuation of basic skills; introduction to part-writing involving triads and all inversions; study of non-harmonic tones in eighteenth century style.

Music 12. Music in Recreation. Two credits. Recreational relation of music to community activities; work with barbershop quartets, folk dancing, music for playgrounds, community singing and recreational instruments such as the ukulele and recorder. Prerequisite: Consent of instructor. Not to be counted toward a Music major or minor or toward the Bachelor of Music degree.

Music 14. Second Year of Ensemble. Each one credit. See Music 4 for the subdivisions of this course. Prerequisite: Music 4.

Music 15. Second Year of Applied Music. Each two credits. See the statement under Music 5. Prerequisite: Music 5.

Music 17. Small Ensembles. Each one credit. **17J-String Quartet; L-Madrigal; M-Percussion; N-Woodwind; P-Brass;** Prerequisite: Consent of the instructor.

Music 18. Keyboard Harmony. Two credits. The study of theory from the point of view of practical application to the keyboard with some attention to use as an accompanying medium. Prerequisite: Piano Grade 3.

Music 19. Keyboard Harmony. Two credits. Free improvisation and improvisation of accompaniments to given melodic lines; elementary score reading at the keyboard; study in transposition and figured bass. Prerequisite: Music 18.

Music 20. Intermediate Theory I. Three credits. Eighteenth century harmonic style, including seventh chords, analysis and harmonization of chorale melodies, advanced sight-singing, dictation, and keyboard. Prerequisite: Music 11.

Music 21. Intermediate Theory II. Three credits. Eighteenth century styles emphasizing chromatic harmonies and harmonizations of chorale melodies; advanced sight-singing, dictation, and keyboard. Prerequisite: Music 20.

Music 23. Music Literature I. Two credits. Introduction to the more important compositions in music from the eighteenth century to the present time; required listening. Open to all students with previous experience in music.

Music 24. Music Literature II. Two credits. Symphonic literature, with emphasis on form and analysis; required listening. Open to all students with previous experience in music.

Music 30. Advanced Theory I. Three credits. Contrapuntal styles of the eighteenth century including analysis and writing of examples. Prerequisite: Music 21.

Music 31. Advanced Theory II. Three credits. Contrapuntal styles of the sixteenth century including analysis and writing of examples. Prerequisite: Music 21.

Music 101. Music Here and Now. Three credits. A study of some of the music performed on campus each semester with particular attention to the history of the composition, its form, and the history of the form. Attendance at five concerts is required. Not to be counted toward a music minor or the Bachelor of Music degree.

Music 103. Music in the Elementary School. Three credits. Techniques and theory of effective teaching skills in the primary and 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.

Music 104. Third or Fourth Year of Ensemble. Each one credit. See Music 4 for the subdivisions of this course. Prerequisite: Music 14.

Music 105. Third or Fourth Year of Applied Music. Each two credits. See the statement under Music 5. Prerequisite: Music 15.

Music 106. Music in the Junior High School. Two credits. Theory and application of effective teaching skills in the junior high school; aims, methods, materials, planning, testing.

Music 107. Music Education Workshop. Two credits. 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.

Music 108. Conducting. Two credits. Problems of organizing and coaching techniques for vocal and instrumental groups; experience in conducting the college ensembles. Prerequisite: Music 10.

Music 109. Advanced Conducting. Two credits. Detailed work in conducting with particular attention to advanced problems, nuances, and score reading. Prerequisite: Music 108 or equivalent.

Music 110. Advanced Theory III. Three credits. Formal and harmonic analysis of nineteenth century styles. Prerequisite: Music 21.

Music 111. Advanced Theory IV. Three credits. Analysis of works from each of the following twentieth century styles: neo-classicism, expressionism, total-serialism, and indeterminacy. Prerequisite: Music 21.

Music 113. Composition. Each two credits. Exploration of twentieth-century compositional techniques with projects in specific styles. **113K.** Short chamber forms, both vocal and instrumental. **113L.** Large forms for chamber ensembles. **113M.** Multi-sectional forms for large ensembles. **113N.** Studies in improvisation and experimental media. Prerequisite: Music 21, or consent of the instructor.

Music 117. Second Year of Small Ensemble. Each one credit. See Music 17 for the subdivisions of this course. Prerequisite: Music 17.

Music 118. Ensemble Technics for Public Schools. Two credits. The playing, singing, and conducting of literature for the junior and senior high school; secondary instruments will be used. Prerequisite: Music 7.

Music 121-122. Piano Literature. Each three credits. Study of keyboard literature from 1700 to the present with emphasis on major composers and their contributions to this field. **121.** 1700-1825. **122.** 1825 to the present. These courses may be taken independently of one another.

Music 123. Voice Literature I. Two credits. Survey of solo vocal literature designed to broaden the singer's performing and teaching repertoire with special attention to vocal interpretation. Open only to voice majors.

Music 124. Voice Literature II. Two credits. Continuation of Music 123 with special attention to program building. Prerequisite: Music 123.

Music 125. Choral Literature. Two credits. Survey of literature for vocal ensembles with particular attention to mass, motet, and cantata.

Music 130. Instrumentation. Two credits. Modern band and orchestra instruments in regard to their ranges, playing characteristics, physical properties, history, and advisable use. Prerequisite: Music 10.

Music 131. Orchestration. Two credits. Arranging of music for small and large ensembles with the accent on written work to produce proper blend and color; some correlated study of examples from the masters. Prerequisite: Music 130.

Music 135. Piano Pedagogy. Two credits. Effective skills in private and class piano, with discussion and performance of piano literature; observation of class and private instruction. Prerequisite: Piano proficiency Grade IV.

Music 136. Voice Pedagogy. Two credits. Study of vocal teaching methods; observation of class and private instruction. Prerequisite: Voice proficiency Grade IV.

Music 137. Woodwind Pedagogy. Two credits. Methods of teaching woodwind instruments with special attention to specific problems of each instrument. Appropriate literature will be selected.

Music 138. Brass Pedagogy. Two credits. Methods of teaching brass instruments with special attention to specific problems of each instrument. Appropriate literature will be selected.

Music 140-141. History of Music. Each three credits. Major events and trends in history and their effect on the culture of the era, music in particular. **140:** Greeks to 1600; **141:** 1600 to the present. May be taken independently.

Music 144. Operas and Oratorios. Two credits. Study of the great oratorios, masses, and other choral masterpieces from classics through the modern period.
Music 151. Baroque Period - 1600-1750. Three credits.

Music 152. Classic Period - 1750-1800. Three credits.

Music 153. Romantic Period - 1800-1890. Three credits.

Music 154. Post-Romantic Period-1890 to the Present. Three credits. Music idioms and styles of the period, with emphasis on the development and rise of new forms; music in the general culture of the period.

Music 155. Music Cultures of the Pacific, the Near East, and Asia. Three credits. Survey of the basic kinds of music and musical instruments found in the major oriental civilizations and in the island cultures of the Eastern Hemisphere.

Music 199. Special Work. Upper class students majoring or minoring in Music, or those working toward a Bachelor of Music degree, may by agreement with the chairman of the Music 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 in theory, conducting, composition, orchestration, or music history.

Natural Resources

Mr. Bowles, chairman; Mr. Raymond Anderson, Mr. Baumgartner, Mr. Baxter, Mr. Engelhard, *Mr. Harpstead, Mr. Ronald Hay, Mr. Heaton, Mr. Korth, Mr. Lee, Mr. James Newman, Mr. Roeder, Mr. Shaw, Mr. Wievel, Mr. Yambert.

In addition to the general requirements of the College of Applied Arts and Science, the following should be noted:

1. General prerequisites for all courses numbered 100 and above, except Natural Resources 190, 191, 192, 194, and 198, require a student to have completed Forestry 2, Natural Resources 1, Soils 6, Water 8, Wildlife 4, and the Summer Camp courses. Exceptions to these general prerequisites may be granted by the chairman of the department. Students should note the additional prerequisites for the various courses as described.
2. Students who have not attained a cumulative grade point average of 2.25 in courses taken in the department of Natural Resources during their freshman and sophomore years, and in Summer Camp, will not be permitted to continue as majors except by special permission of the chairman of the department.

Forestry

A. A major in Forestry consists of:

1. Forty-one credits including Forestry 2, 121, 122, 123, 124, 125, 126, and 127 or 128; Natural Resources 1 and 192; Soils 6; Water 8; Wildlife 4.
2. Collateral courses: Biology 3-4, 101, 165; Chemistry 5-6 or 7-8; Geography 3; Mathematics 5 or 7 or eligibility for 9; Physics 3.
3. Summer Camp courses: Forestry 129S, Soils 169S, Wildlife 149S.

B. A minor in Forestry consists of 22 credits selected from the following: Forestry 2, 121, 122, 123, 124, 125, 126, 127, 128, 129S; Soils 160; Wildlife 4.

In order to fit his program to meet Federal Civil Service requirements, the student should consult one of the professional foresters in the Department of Natural Resources.

By using the Forestry minor to complement an appropriate major, the student may prepare himself for one of the various fields within forestry; e.g. with Resource Management for forest and park land management; with Business Administration for preparation in industrial forestry; with Biology for preparation in forest genetics, forest entomology and pathology; with Soils for preparation in forest soil science; etc.

Resource Management

A. A major in Resource Management consists of:

1. Thirty-four credits, including Biology 165; Forestry 2; Geography 3; Natural Resources 1, 191, 192, 198; Soils 6; Water 8; Wildlife 4.
2. Collateral courses including: Biology 3, 4; Chemistry 5-6 or 7-8; Mathematics 5 or 7 or eligibility for 9.
3. Summer Camp courses including: Forestry 129S, Soils 169S, and Wildlife 149S.

B. A minor in Resource Management consists of 22 credits including Forestry 2, Natural Resources 194, Soils 6, Water 8, Wildlife 4.

C. A concentration in Soil Science consists of:

1. Thirty-four credits, including Forestry 2; Natural Resources 1, 192, 198; Soils 6, 161, 162, 163, 164, 166; Water 8; Wildlife 4.
2. Collateral courses including: Biology 3, 4, 101; Chemistry 5-6 or 7-8; Geography 3; Mathematics 5 or 7 or eligibility for 9; Physics 3.
3. Summer Camp courses including: Forestry 129S, Soils 169S, and Wildlife 149S.

Wildlife

A major in Wildlife consists of:

1. Thirty-two credits, including Biology 165; Forestry 2; Geography 3; Natural Resources 1, 198; Soils 6; Wildlife 4, 144 or 151; additional credits to total 32 in courses prescribed by the adviser.
2. Collateral courses: Biology 3-4; Chemistry 5-6 or 7-8, 12; Mathematics 5 or 7 or eligibility for 9, 25.
3. Summer Camp courses: Forestry 129S; Soils 169S; Wildlife 149S.

Forestry

Forestry 2. Introduction to Forest Resources. Three credits. Introduction to the forest resources of the United States with special emphasis on the role of forestry in historic and current events, elementary mensuration, and management techniques. Two hours lecture, two hours laboratory per week.

Forestry 121. Dendrology. Three credits. Identification, classification, distribution, and economic importance of the principal forest trees of the United States. Two hours lecture, two hours laboratory per week.

Forestry 122. Forest Mensuration. Three credits. Measurement of forest stands, products, and growth, including the construction and use of appropriate instruments, tables, and surveys. Two hours lecture, two hours laboratory per week. Prerequisite: Mathematics 5 or 7 or eligibility for 9.

Forestry 123. Principles and Practices of Silviculture. Three credits. Ecological factors influencing the forest community, and their use in the control of forest establishment, composition, and growth. Two hours lecture, two hours laboratory per week.

Forestry 124. Forest Fire Control and Use. Three credits. Fire behavior, effects, prevention, control, and use in land management. Two hours lecture, two hours laboratory per week.

Forestry 125. Forest Management and Finance. Three credits. Principles of organizing and regulating forest properties; valuation and investment analysis. Two hours lecture, two hours laboratory per week. Prerequisite: Forestry 121, 122, and 123; or consent of instructor.

Forestry 126. Forest Entomology and Pathology. Three credits. The important forest insects and diseases, their relation to forest management and utilization, and the principles and methods of their control. Two hours lecture, two hours laboratory per week. Prerequisite: Forestry 121, or consent of instructor.

Forestry 127. Recreational Use of Forests and Parks. Three credits. Principles and methods involved in the development and administration of recreational and interpretive programs on recreational lands. Two hours lecture, two hours laboratory per week.

Forestry 128. Wood Technology. Three credits. Structure of wood; identification of native woods by microscopic and macroscopic features; physical and chemical properties; uses. Two hours lecture, two hours laboratory per week. Prerequisite: Forestry 121, or consent of instructor.

Forestry 129S. See **Summer Camp Program,** below.

Forestry 130. Principles of Range Management. Three credits. Technical study of sustained yield management practices applicable to rangelands with consideration of proper stocking and grazing systems and methods of range surveying. Prerequisite: Biology 3; Soils 6.

Forestry 131. See **Field Seminar Program,** below.

Forestry 199. Special Work. Upper class students in Forestry may, by agreement with the chairman of the Natural Resources 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.

Natural Resources

Natural Resources 1. Introduction to Natural Resources. One credit. Introduction to natural resources with emphasis on their integrated management and their role in man's social and economic welfare. Open to all students.

Natural Resources 190. Conservation of Natural Resources. Three credits. A survey of natural resources with emphasis on the development of the proper public attitude toward the wise use of our natural resources; designed principally as an

informational course for those who need it for teaching preparation. Not open to majors or minors in the Department of Natural Resources. Two hours lecture, two hours laboratory per week.

Natural Resources 191. Conservation Administration. Two credits. Administrative principles and organizational structure of private, local, state, and federal conservation agencies.

Natural Resources 192. Resource Economics. Three credits. Fundamental economic concepts and their application to resource use; traditional and revised theories of land use; problems of land policy management.

Natural Resources 193. Conservation Law. Three credits. Legislation pertaining to natural resources with consideration given to the need for, purpose of, and implementation of such laws.

Natural Resources 194. Integrated Resource Management. Three credits. 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. Prerequisite: Forestry 2, Soils 6, Water 8, Wildlife 4.

Natural Resources 198. Natural Resources Seminar. One credit. Individual and group investigation of current problems in conservation. Prerequisite: Senior standing for majors or minors in Natural Resources.

Natural Resources 199. Special Work. Upper class students majoring or minoring in the department of Natural Resources, and who have demonstrated above average academic ability, may by agreement with the chairman of the department 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.

Soils

Soils 6. Introduction to Soil Resources. Four credits. Origin and development of soil with emphasis on physical, chemical, and biological properties and their relationship to soil fertility. Three hours lecture, two hours laboratory per week. Prerequisite: Chemistry 5 or 7, or concurrent registration therein.

Soils 160. Forest Soils. Three credits. Properties of soils in relation to silviculture and forest nursery management. Two hours lecture, two hours laboratory per week.

Soils 161. Soil Management. Three credits. Principles and practices of soil conservation and soil fertility. Two hours lecture, two hours laboratory per week.

Soils 162. Soil Genesis and Morphology. Three credits. Geologic origin, characteristics, and taxonomic grouping of soils, together with emphasis on survey methods and mapping procedures. Two hours lecture, two hours laboratory per week.

Soils 163. Agronomy. Three credits. Grain and forage crops, with emphasis on management practices. Two hours lecture, two hours laboratory per week.

Soils 164. Soil Analysis. Three credits. Methods of determining physical and chemical properties of soils. One hour lecture, four hours laboratory per week. Prerequisite: Soils 160, and 161 or 162; or consent of instructor.

Soils 166. Soil Physics. Three credits. Physical properties of soils and methods of determination, with emphasis on influences on plant growth. Two hours lecture, two hours laboratory per week. Prerequisite: Soils 6; Mathematics 7; Physics 3; or consent of instructor.

Soils 167. See **Field Seminar Program,** below.

Soils 169S. See **Summer Camp Program,** below.

Soils 199. Special Work. Upper class students in Soil Science may, by agreement with the chairman of the Natural Resources 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.

Water

Water 8. Introduction to Water Resources. Three credits. Surface and subsurface water resources, their economic and social importance, control, and conservation.

Water 180. Water Analysis. Three credits. Physical, chemical, and biological examination of unpolluted and polluted water. One hour lecture, four hours laboratory per week. Prerequisite: Biology 110; Chemistry 6 or 8; or consent of the instructor.

Water 181. Pollution Ecology. Four credits. 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 hours lecture, four hours laboratory per week. Prerequisite: Biology 101 and Wildlife 141, or consent of instructor.

Water 182. Water Quality Management. Three credits. Fundamental concepts in water quality management and special emphasis on selected water quality control systems. Three hours lecture per week. Prerequisite: Biology 110; Soils 6.

Water 199. Special Work. Upper class students in Water Science may, by agreement with the chairman of the Natural Resources 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.

Wildlife

Wildlife 4. Introduction to Wildlife Resources. Three credits. Wildlife resources of the United States; the importance of wildlife to our past and present economic and cultural life; selected problems in wildlife conservation. Prerequisite: Biology 4, or concurrent registration therein.

Wildlife 141. Limnology. Three credits. Same as Biology 141. Physical, chemical, and biological phenomena of freshwater communities. Two hours lecture, two hours laboratory per week. Prerequisite: Biology 165.

Wildlife 144. Fisheries Management. Three credits. Principles of management of inland waters for fish production. Two hours lecture, two hours laboratory per week. Prerequisite: Biology 127; Wildlife 141; or consent of instructor.

Wildlife 149S. See **Summer Camp Program,** below.

Wildlife 150. Game Management Techniques. Three credits. Techniques of managing game population; field mapping, food habit studies, game censuses, and control measures; special emphasis on techniques of game management as it applies to Wisconsin game populations. Two hours lecture, two hours laboratory per week. Prerequisite: Biology 120 or consent of instructor.

Wildlife 151. Game Management. Four credits. History and development of game management in the United States;

principles of management of game animals; coordination of such management with current land use practices. Two hours lecture, four hours laboratory per week. Prerequisite: Biology 165; Wildlife 150; or consent of instructor.

Wildlife 152. Regulation of Animal Populations. Two credits. Modern control techniques used in regulation of animal populations; special emphasis on pesticides and implications of their use. Prerequisite: Open only to Biology and Natural Resources majors or minors having senior standing; or consent of instructor.

Wildlife 199. Special Work. Upper class students majoring in wildlife may, by agreement with the chairman of the Department 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.

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 131. Forestry Field Seminar. One credit. Extended tour through areas 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. The course will be offered during spring vacation or its equivalent. Prerequisite: Consent of instructor.

Soils 167. Soils Field Seminar. One credit. Extended 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. The course will be offered during spring vacation or its equivalent. Prerequisite: Consent of instructor.

Summer Camp Program

Forestry 129S. Forest Measurement and Surveying. Two credits. Field practices in the application of forest measurement and surveying techniques.

Wildlife 149S. Techniques in Fish and Wildlife Management. Two credits. Field practices in the application of various fish and wildlife management techniques.

Soils 169S. Techniques of Soil and Water Conservation. Two credits. Field practices in the application of various soil and water conservation techniques, including land use classification, various methods of erosion control, drainage, and public relations measures.

Outdoor Education

A minor in Outdoor Education consists of 22 credits selected from the following lists. At least 10 of these must be outside the student's major field or emphasis.

I. Required core courses, 10-13 credits: Biology 9 (Nature Study); Biology 165 (Ecology); Education 183 (Outdoor Education) or Special Studies 110 (Outdoor Education Workshop); Physical Education 41 (Camp Leadership) or Physical Education 143 (Group Games and Social Recreation).

II. Additional courses selected from the following so that the total credits in I and II are at least 22, and the courses elected in II are from at least two different fields: Art 3 (Drawing); Art 31 (Painting: Water Color); Art 32 (Oil Painting); Art 41 (Introductory Crafts); Art 141 (Advanced Crafts); Astronomy 111 (Elementary Astronomy); Biology 18 (Trees and Shrubs); Biology 35 (Ornithology); Biology 120 (Plant Taxonomy); Biology 125 (Natural History of Vertebrates); Biology 155 (Field Zoology); Drama 3 (Interpretive Reading); Drama 183 (Creative Dramatics); Drama 184 (Children's Theatre); Education 105V (Techniques in Social Studies); Education 110C (Workshop in Education - Conservation); Education 131 (Audio-Visual Education); English 30 (Intermediate Composition); English 130 (The Romantic Movement); English 140 (The American Renaissance); English 142 (Midwestern Literature); Forestry 127 (Recreational Use of Forests and Parks); Geography 1 (Earth Science); Geography 2 (Weather and Climate); Geography 3 (Physiography); Geography 11 (Wisconsin); Geography 151 (Climatology); Geography 152 (Landforms); History 166 (Wisconsin); Journalism 25 (Publicity Media and Methods); Music 12 (Music in Recreation); Natural Resources 1 (Introduction to Natural Resources); Natural Resources 190 (Conservation of Natural Resources); Physical Education 13 or 14 (Individual Sports); Physical Education 41 (Camp Leadership); Physical Education 142 (Community Recreation); Physical Education 143 (Group Games and Social Recreation); Physical Education 152 (First Aid Instructors); Sociology 11 (Prehistoric Man); Sociology 12 (Man, Culture, and Society); Speech 120 (Group Discussion).

Philosophy

Mr. Zawadsky, chairman; Mr. Bailiff, Mr. Billings, Mr. Csavas, *Mr. Herman, Mr. Kane, Mr. Ira Newman, Mr. Schuler. (*On leave.)

A. A major in philosophy consists of a minimum of 27 credits, including:
1. Philosophy 21, 105, 107, 108, and 109;
2. At least 12 additional credits in philosophy, to be selected with the advice of the departmental adviser.

B. A minor in philosophy consists of a minimum of 18 credits in philosophy, to be selected with the advice of the departmental adviser.

Philosophy 1. Introduction to Philosophy. Three credits. (Formerly 15.) A survey of the important problems in philosophy and an examination of major philosophic positions, such as materialism, idealism, rationalism, empiricism, existentialism. Not open to juniors and seniors except with consent of instructor. Not open to students who have taken Philosophy 15.

Philosophy 5. Philosophy and Religion of India and China. Three credits. An introduction to the origin and development of Indian and Chinese thought and religion, with special emphasis on Hinduism, Buddhism, Taoism, and Confucianism.

Philosophy 17. History of Philosophy: Ancient. Three credits. Philosophy from the pre-Socratics to the Stoics and Epicureans: from Thales to Marcus Aurelius. Prerequisite: Sophomore standing.

Philosophy 18. History of Philosophy: Modern. Three credits. Philosophy from the Patristic period to the eighteenth century: from St. Augustine to Immanuel Kant. Prerequisite: Sophomore standing.

Philosophy 21. Elementary Logic. Three credits. Problems and methods of better thinking; development of skill in detecting the more obvious logical errors. The positive aim of the course is improvement in the student's ability to critically examine descriptive discourse. Prerequisite: Sophomore standing or consent of the instructor.

Philosophy 22. Symbolic Logic. Three credits. Introduction to symbolic logic with particular attention to the application of logical systems in the natural sciences. Prerequisite: Philosophy 21 or consent of the instructor.

Philosophy 30. Introduction to Philosophy of Education. Three credits. Representative philosophic theories of education.

Philosophy 100. Principles of Philosophy. Three credits. Introduction to the problems and methods of philosophy; reading and discussion of the works of classical and contemporary philosophers, such as Aristotle, Descartes, Hume, Sartre, Russell. Open only to juniors and seniors with no previous course in Philosophy, except Philosophy 30.

Philosophy 103. Philosophy of Art. Three credits. 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.

Philosophy 105. Ethics. Three credits. A critical examination of representative ethical systems, together with an analysis of moral discourse.

Philosophy 106. Philosophy of Science. Three credits. An examination of the logical structure, concepts, and derivative "philosophic" issues of the descriptive sciences; organized with reference to physics and psychology as illustrative of the physical and behavioral sciences. This course may not be used to meet the "Humanities" requirement for a degree. Prerequisite: Three credits of philosophy or consent of the instructor.

Philosophy 107. History of Philosophy: Medieval. Three credits. Examination of the basic principles of medieval philosophy as found in the leading philosophical writers of the period, from Augustine to Ockham. Prerequisite: Three credits of philosophy, or consent of the instructor.

Philosophy 109. History of Philosophy: Contemporary. Three credits. Philosophy from post-Kantian German Idealism to the present: from Hegel to Wittgenstein and Ayer. Prerequisite: Three credits of philosophy or consent of the instructor.

Philosophy 110. Metaphysics. Three credits. Examination of contemporary metaphysical theories with particular attention to the relation of metaphysics and the factual sciences. Prerequisite: Three credits in philosophy or consent of the instructor.

Philosophy 112. Epistemology. Three credits. An introductory study of the problems of the theory of knowledge. Prerequisite: Three credits in philosophy or consent of the intsructor.

Philosophy 115. Philosophy of Law. Three credits. An introductory examination of fundamental legal institutions and concepts, the relations between law and morality, and the logic of legal reasoning. Prerequisite: Three credits in philosophy or consent of the instructor.

Philosophy 116. Philosophy of History. Three credits. An investigation of historical knowledge and explanation, together with an analysis of representative theories of history, e.g. Kant, J. S. Mill, Hegel, Marx, Spengler, Toynbee, Collingwood, Hempel, and Popper. Prerequisite: Three credits in philosophy or consent of the instructor.

Philosophy 118. Philosophy of Language. Three credits. An introduction to the theory of meaning, with special attention given to an analysis of the nature and functions of language in human existence. Prerequisite: Three credits in philosophy or consent of the instructor.

Philosophy 120. Philosophy of Religion. Three credits. An introduction to the basic problems of the philosophy of religion, including the nature of religion, religious knowledge, religious language, the problem of evil, and immortality.

Philosophy 125. Educational Philosophy of Experimentalism. Three credits. A study of the educational philosophy of experimentalism through an examination of the educational writings of John Dewey. Prerequisite: Three credits of philosophy.

Philosophy 131. History of Pre-Revolutionary Russian Philosophy. Three credits. An examination of the development of Russian thought, religious and philosophic, from its Byzantine origins to the end of the nineteenth century.

Philosophy 132. Development of Soviet Ideology. Three credits. An examination of the sources and evolution of historical and dialectical materialism—the philosophy of the Soviet Union.

Philosophy 140. American Philosophy. Three credits. The development of philosophy in America from the Transcendentalists and the St. Louis school through Royce, Pierce, James, Dewey, and Santayana.

Philosophy 190. Seminar. Three credits. Intensive study of a major philosophic figure or topic. A subtitle indicating the figure or topic studied will be added each time the course is offered. Prerequisite: Six credits of philosophy and consent of instructor.

Philosophy 199. Special Work. Upper class students minoring in Philosophy may, by agreement with the chairman of the Department of Philosophy, 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.

Physical Education

Mr. Brodhagen, chairman; Mr. Behnke, Miss Biddlestone, Mr. Lynn Blair, Mr. Bowen, Mr. Burns, Mr. James Clark, Miss Clawson, Miss Cleary, Mr. Counsell, Miss Dillin, Mr. Gorell, Mrs. Hatch, Miss Herrold, Mr. Hoff, Mr. Kasson, Mr. Krueger, Miss Mullen, *Miss Rimnac, Mrs. Sigmund, Miss Spring, Mr. Ronald Steiner. (*On leave.)

A. A major in Physical Education for Women consists of 54 credits:

1. Physical Education 5, 10K and 10L (Substitutes for 3 and 4), 10M, 10N, 11 or 12, 13, 14, 15, 16, 17 or 18 or 19 or 20, 52, 71, 101, 102, 103, 131, 170, 172, 174, 191, 195, 196.

2. Sufficient additional credits in Physical Education to total 44, with at least 11 credits selected from one of the following groups:
   a. **Group One—Physical Education concentration:**
   Physical Education 17, 18, 19, 20, 50, 143, 152, 180; Psychology 103; Psychology 115 or Sociology 115.
   b. **Group Two—Health concentration:**
   Physical Education 140, 152; Biology 110; Education 135.
   c. **Group Three—Elementary School Physical Education concentration:**
   Physical Education 20, 143; Psychology 13; Education 183, 184.
   d. **Group Four—Recreation concentration:**
   Physical Education 17, 18, 19, 20, 41, 142, 143; Art 5; Biology 9; Music 12; Education 183; Speech 119.
   e. **Group Five—Dance concentration:**
   Physical Education 17, 18, 19, 20; Dance 1, 3, 5, 9, 11, 103, 104, 109; Special Studies 197.

3. Collateral courses required: Biology 24, 40; Home Economics 151. (Biology 1 and Chemistry 1, or Biology 4, are prerequisites for Biology 24.)

B. A minor in Physical Education for both men and women consists of 22 credits in addition to Physical Education 1 (or 9 or 10), 2 (or 23 or 24), 3, 4, 11, and 12. It includes the following:

For men and women: Physical Education 5, 13 or 14, 15, 16, 17, 71, 143, 191; Biology 40.

For men: Physical Education 10A, 10B, 103, 151.

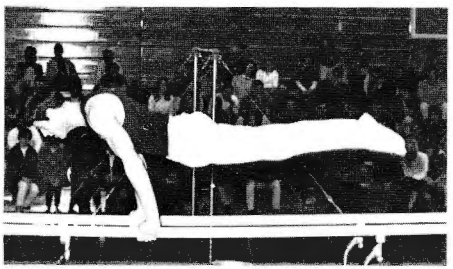
For women: Physical Education 10M, 10N, 52.

The remaining credits in Physical Education may be selected from the following courses:

For men and women: Physical Education 13 or 14, 18, 19, 20, 41, 50, 131, 140, 142, 152, 170, 172, 174, 180, 195, 196, 197, 199.

For men: Physical Education 182, 183.

Education students majoring or minoring in Physical Education must take Education 106K as one of their technique courses. Men must complete coaching experiences in two different areas.



Physical Education 1. General Physical Education (Men). One credit. Floor classes involving physical fitness activities and seasonal sports; swimming may be elected in place of floor classes. Required of all Freshmen men; two hours per week.

Physical Education 2. General Physical Education (Men). One credit. Floor classes involving self-testing, combative, and seasonal sports; swimming may be elected in place of floor classes. Required of all Sophomore men; two hours per week.

Physical Education 3. General Physical Education (Women). One credit. Floor classes involving physical fitness activities and seasonal sports; swimming may be elected in place of floor classes. Required of all Freshmen women; two hours per week.

Physical Education 4. General Physical Education (Women). One credit. Floor classes involving movement fundamentals and seasonal sports; swimming may be elected in place of floor classes. Required of all Sophomore women; two hours per week.

Physical Education 5. Introduction and Principles of Physical Education. Two credits. An introductory course for all Physical Education majors and minors, interpreting the history, philosophy, and principles of physical education.

Physical Education 7. Physical Education for the Older Student. Two credits. Primarily for the student over thirty years of age who wishes to elect this course in place of Physical Education 1 or 3, and 11. A combination lecture-laboratory course dealing with such matters as diet and weight control, relaxation, exercise, movement, recreational activities, and physical problems of aging.

Physical Education 8. Physical Education for the Older Student. Two credits. A continuation of Physical Education 7, primarily for the student over thirty years of age who wishes to elect this course in place of Physical Education 2 or 4, and 12.

Physical Education 9. Team Sports for Boys and Men. One credit. Instruction in football and volleyball, with emphasis on playing skills and teaching methods. Three hours per week.

Physical Education 10. Team Sports for Boys and Men. One credit. Instruction in basketball and soccer, with emphasis on playing skills and teaching methods. Three hours per week.

Physical Education 10A. Foundations of Physical Education Activities (Men). One credit. Instruction in the nature of exercise, physical conditioning, and procedural technique. Three hours per week.

Physical Education 10B. Foundations of Physical Education Activities (Men). One credit. Foundations of fundamental movement patterns and basic skills, including the study of movement, structure, joint actions, biomechanical principles of movement and the application of principles in the context of sport skills and basic movement patterns. Three hours per week.

Physical Education 10K. Foundations of Physical Education Activities (Women). One credit. Instruction in exercise, conditioning, tactics. Three hours per week.

Education 10L. Foundations of Physical Education Activities (Women). One credit. Instruction in fundamental movement patterns and basic skills. Three hours per week.

Physical Education 10M. Beginning Team Sports for Girls and Women. One credit. Instruction in soccer, field hockey, and volleyball; emphasis on development of playing skills. Three hours per week.

Physical Education 10N. Beginning Team Sports for Girls and Women. One credit. Instruction in basketball, softball, track and field; emphasis on development of playing skills. Three hours per week.

Physical Education 11-12. General Physical Education. Each one credit. Individual and recreational activities such as archery, bowling, golf, swimming, rhythms, tennis, and fencing offered in different sections. Students may elect sections as space permits. P.E. 11 is required of all junior men and women. P.E. 12 is required of all senior men and women. P.E. 31 or 32 may be substituted for P.E. 11 or 12 if either course is required in the student's curriculum. Prerequisite: Junior standing.

Physical Education 13. Individual Sports. One credit. Instruction in golf, bowling, and archery. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 14. Individual Sports. One credit. Instruction in racket sports: badminton, tennis, paddle ball, and aerial tennis. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 15. Beginning Tumbling and Gymnastics. One credit. Instruction in mat and rebound tumbling, parallel bars, balance beam, floor exercise, and vaulting. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 16. Fundamentals of Rhythm and Dance. One credit. Instruc-

tion in rhythmic structure of music and movement basic to dance forms. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 17. Recreational Dance Technique. One credit. Instruction in technique of social, folk, and square dance. Three hours per week. Prerequisite: Physical Education 16 or consent of instructor.

Physical Education 18. Intermediate Modern Dance I. Two credits. Same as Dance 18. Instruction in modern dance technique, composition, and improvisation. Four hours per week. Prerequisite: Dance 3, or Physical Education 16, or consent of the instructor.

Physical Education 19. Intermediate Modern Dance II. Two credits. Same as Dance 19. Continuation of Physical Education 18. Four hours per week. Prerequisite: Physical Education 18 or consent of the instructor.

Physical Education 20. Dance in the Elementary School. One credit. Instruction in dance forms basic to a balanced elementary school physical education program. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 23. Team Sports for Boys and Men. One credit. Instruction in swimming and wrestling, with emphasis on playing skills and teaching methods. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 24. Team Sports for Boys and Men. One credit. Instruction in track and field and baseball, with emphasis on playing skills and teaching methods. Three hours per week. Prerequisite: Sophomore standing.

Physical Education 31. Physical Education for Lower Grades. Two credits. Methods and materials for the teaching of physical education in the primary grades. Required of all students in the primary curriculum. Prerequisite: Sophomore standing.

Physical Education 32. Physical Education for Upper Grades. Two credits. Methods and materials for the teaching of physical education in the elementary grades. Required of all students in the Intermediate-Upper Elementary curriculum. Prerequisite: Sophomore standing.

Physical Education 41. Camp Leadership. Two credits. 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. Prerequisite: Sophomore standing.

Physical Education 50. History and Philosophy of Physical Education. Two credits. Historical development of philosophies of physical education as influenced by the political, economic, and social conditions of various countries. Prerequisite: Sophomore standing.

Physical Education 52. Safety Procedures and First Aid. Two credits. American Red Cross first aid training with certificate issued on satisfactory completion of course; additional work in the use of supportive and therapeutic aids. Prerequisite: Sophomore standing.

Physical Education 71. Human Anatomy. Three credits. The skeletal, muscular, circulatory, respiratory, and nervous systems of the human body; designed for Physical Education majors and minors. Prerequisite: Sophomore standing.

Physical Education 101. Advanced Team Sports for Girls and Women. One credit. Instruction in field sports and volleyball; emphasis on coaching and officiating. Three hours per week. Prerequisite: Physical Education 10M.

Physical Education 102. Advanced Team Sports for Girls and Women. One credit. Instruction in basketball, softball, track

and field; emphasis on coaching and officiating. Three hours per week. Prerequisite: Physical Education 10N.

Physical Education 103. Intermediate and Advanced Gymnastic Tumbling and Apparatus. One credit. Advanced techniques in competitive gymnastics activities. Three hours per week. Prerequisite: Physical Education 15.

Physical Education 131. Physical Education for the Elementary School. Two credits. The physical education program at the elementary school level. Three hours per week. Enrollment limited to students majoring or minoring in Physical Education.

Physical Education 140. Principles and Administration of School Health Programs. Three credits. Basic principles of health education and administrative practices in all aspects of the school health program. Prerequisite: Biology 40 or consent of the instructor.

Physical Education 142. Community Recreation. Two credits. Study of the problems involved in setting up recreation programs on a yearly basis.

Physical Education 143. Group Games and Social Recreation. Two credits. Quiet games, singing and folk games, and games of low organization suitable for home, school, and community recreation; supplementary to Physical Education 142.

Physical Education 151. First Aid and Athletic Training. Two credits. Causes, treatment, and prevention of injuries common to athletic activities; taping, bandaging, and discussion of such topics as fatigue, overtraining, and second wind.

Physical Education 152. First Aid Instructors. One credit. Preparation for teaching junior, standard, and advanced first aid prescribed by American Red Cross; certificate of authorization granted on satisfactory completion of course. Prerequisite: Valid advanced first aid certificate.

Physical Education 170. Kinesiology. Three credits. Study of body movement and principles which affect movement. Prerequisite: Biology 24; Physical Education 71.

Physical Education 172. Physiology of Exercise. Two credits. Effects of exercises of speed, strength, skill, and endurance; nature of muscular behavior, fatigue, breathlessness, and exhaustion; effects of exercise with respect to age, sex, and occupation. Prerequisite: Biology 24; Physical Education 71.

Physical Education 174. Adapted Physical Education. Two credits. Teaching materials of the preventive and corrective phases of physical education as applied to individual development needs of students at all school levels.

Physical Education 180. Tests and Measurements in Physical Education. Three credits. Analysis and construction of tests, interpretation of data and measurement in physical education.

Physical Education 182. Theory of Football and Basketball. One credit. Analysis of various styles of offense and defense, strategy, conditioning, and coaching methods of football and basketball. Two hours per week.

Physical Education 183. Theory of Track, Baseball, and Wrestling. One credit. Theory and technique, training schedules, strategy, coaching methods, and conditioning for baseball, track, and wrestling; two hours per week.

Physical Education 191. Organization and Administration of Physical Education and Athletics. Two credits. The school program in Physical Education and Athletics; problems of the administration of gymnasia, playgrounds, pools, locker rooms, inter-scholastic athletics and intramurals; management of the business affairs of each type of program.

Physical Education 195-196. Seminar in Physical Education, Health, and Recreation. Each one credit. Current developments in physical education, health, and recreation. Prerequisite: Senior standing for students majoring or minoring in Physical Education.

Physical Education 197. Workshop in Physical Education. Three credits. Designed to give teachers an opportunity to gather new ideas and practical experiences for use in teaching situations; consideration given to the individual teachers and particular problems encountered in their own school systems.

Physical Education 199. Special Work. Upper class students in Physical Education may, by agreement with the chairman of the Physical Education 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.

Physics

Miss Bainter, chairman; Mr. Blocher, Mr. Chander, Mr. Kulas, *Mr. Lokken, Mr. Razdan, Mr. Schmitz, Mr. Sharma, *Mr. Taylor, Mr. Wild. (*On leave.)

A. A major in Physics consists of 34 credits, including Physics 10, 11, and 12 (Physics 3-4 will be accepted by the chairman of the department under certain conditions); Physics 102, 103, 107, 108, 111, and at least one credit of 199 or two credits of 198; the remaining credits will be in Physics 105, 112, 115, 180. In the education curricula, Astronomy 111 may be elected as part of the 34 credits.

B. A minor in Physics consists of 22 credits, including Physics 10, 11, and 12 (Physics 3-4 will be accepted by the chairman of the department under certain conditions); Physics 102, 103 or 107, 111; the remaining credits will be in Physics 105, 112, 115, 180. In the education curricula, Astronomy 111 may be elected as part of the 22 credits.

C. A minor in Physics, within the General Science major, consists of 22 credits; including Physics 3, 4, 120, 121, 122, 123; Astronomy 111.

Note: Physics 10-11-12 may be used to meet the general requirement for a year of laboratory science.

Physics 1. General Physics. Five credits. Fundamental principles of physics with emphasis on applied, rather than on mathematical relations; designed for students in the Elementary Education curriculum and in general education. Not to be counted toward a major or minor in Physics. Two hours lecture, one hour quiz, four hours laboratory per week.

Physics 3-4. General Physics. Each five credits. Mechanics, sound, heat, light, electricity, and magnetism; three hours lecture, three hours laboratory, one hour quiz per week. Prerequisite: One year of high school algebra and one year of high school geometry or college equivalent.

Physics 10. General Physics. Three credits. Mechanics; three hours lecture per week. Prerequisite: Math 9 or 11, or concurrent registration therein, or consent of instructor.

Physics 11. General Physics. Four credits. Heat, sound, and electrostatics; two hours lecture, one hour quiz, three hours laboratory per week. Prerequisite: Physics 10 or consent of instructor.

Physics 12. General Physics. Four credits. Electricity, magnetism, optics, and modern physics; two hours lecture, one hour quiz, three hours laboratory per week. Prerequisite: Physics 10 and 11, or consent of instructor.

Physics 102. Electronics. One credit. Basic principles of electronic circuitry and instrumentation including vacuum tubes, transistors and various semi-conductor devices. Two hours laboratory per week. Prerequisite: Physics 1, or 4, or 10-11-12; or concurrent registration in Physics 4 or 12; or consent of instructor.

Physics 103. Advanced Optics. Four credits. Review of light; advanced principles of optics; three hours lecture, two hours laboratory per week. Prerequisite: Physics 12; Mathematics 12.

Physics 105. Advanced Mechanics. Three credits. Composition, resolution, and multiplication of vectors; Newton's laws of motion as applied to rectilinear and curvilinear motions, including simple harmonic and damped vibrations; rotation of rigid bodies; moments of inertia. Prerequisite: Physics 12; Mathematics 12.

Physics 107-108. Electricity and Magnetism I, II. The courses constitute a two-semester sequence dealing particularly with theory of electrostatics, electromagnetics, magnetic properties of materials, units, and thermo-electricity; treatment of alternating circuits, electromagnetic radiation, and Maxwell's equations. **107.** Three credits. Three hours lecture per week. Concurrent registration in 102 is recommended. Prerequisite: Physics 12, Mathematics 12. **108.** Four credits. Three hours lecture, two hours laboratory per week. Prerequisite: Physics 102, 107.

Physics 111. Atomic Structure I. Four credits. Review of the atomistic theory of matter, including atomic spectra, the Bohr atom, the Schrodinger equation, the Pauli exclusion principle, quantum theory of the periodic table. Three hours lecture, two hours laboratory per week. Prerequisite: Physics 12, Mathematics 12.

Physics 112. Atomic Structure II. Four credits. Review of nuclear theory, including X-ray theory and spectra, nuclear structure and nuclear models, natural and induced radioactivity, alpha-decay, beta-decay, gamma-radiation, and fundamental particles. Three hours lecture and two hours laboratory per week. Prerequisite: Physics 111.

Physics 115. Thermodynamics. Three credits. Principal concepts of thermodynamics and elementary kinetic theory. Prerequisites: Physics 12; Mathematics 12.

Physics 120. Electromagnetic Spectrum. Three credits. A review of electricity, magnetism, and light as given in general physics; a study of the more advanced principles of electricity, magnetism, and optics, including the infrared and ultraviolet. Prerequisite: Physics 4.

Physics 121. Modern Physics. Three credits. Basic principles of modern physics: atomic and nuclear radiation and the models of the atom and the nucleus; introduction to relativity and elementary particles; concepts of solid state physics. Prerequisite: Physics 4; Mathematics 6 or 9.

Physics 122. Experimental Physics I. Two credits. Experimental procedure, analysis of experimental data, and laboratory technique; experiments in classical electricity, magnetism, and optics. One hour lecture, three hours laboratory per week. Prerequisite: Physics 4.

Physics 123. Experimental Physics II. One credit. Continuation of Physics 122; emphasis on modern physics experi-

ments including studies of radioactive decay. Three hours laboratory per week. Prerequisite: Physics 122 or consent of instructor.

Physics 180. Selected Topics. Three credits. Approximately six weeks of concentrated study in each of three of the following areas: solid-state physics, quantum mechanics, shop techniques, electronics, mathematical methods of physics, planetary and space physics, general relativity. The selection is based on the needs of the particular group and on the special interest of the staff member offering the course. Open only to juniors and seniors majoring in physics or chemistry.

Physics 198. Research Participation. Two to four credits; re-enrollment permitted to a maximum of six credits. Investigations in problems of current interest in physics, requiring eight to ten hours per week in the laboratory. Prerequisite: Selection by supervisor/faculty member or recommendation of staff members and approval of chairman.

Physics 199. Special Work. Upper class students majoring or minoring in Physics may, by agreement with the chairman of the Physics 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.

Polish

See **Foreign Language.**

Political Science

Mr. Woodka, chairman; Mr. Abbott, Mr. Blank, Mr. Cates, Mr. Decker, Mr. Fothergill, Mr. Kudsi-Zadeh, Mr. Oster, Mr. Singh, Mr. Robert Wood.

A. A major in Political Science consists of at least 34 credits, including:

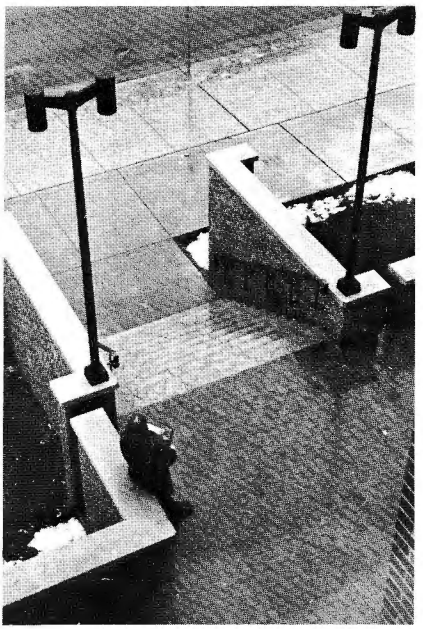
1. Political Science 1 and 2.

2. At least one advanced course from four of the following six fields:
   a. American Government. Political Science 110, 111, 112, 113, 114, 130, 132, 155.
   b. Comparative Governments: Political Science 160, 161, 162, 163, 164, 166.
   c. International Relations: Political Science 180, 181, 182.
   d. Political Theory: Political Science 170, 171, 172, 173, 174, 176, 177, 179.
   e. Public Administration: Political Science 120, 121, 122, 123, 125, 126.
   f. State and Local Government: Political Science 141, 142, 143, 144.

3. Political Science 16 and 17—strongly recommended but not required.

A minimum grade point average of 2.00 in courses taken within the major is a requirement for acceptance of the student as a major at the start of his junior year. The minimum 2.00 grade point average in courses in the major is also a requirement for the student's retention as a major during his junior and senior years and for department approval of the major for graduation. The department chairman may allow exceptions to this standard on a conditional basis.

B. A minor in Political Science consists of at least 22 credits, including Political Science 1 and 2, and at least one advanced course in three of the six fields listed under the major.



Political Science 1-2. American National Government. Each three credits. **1.** Background, origins, and nature of the national constitutional and political system; emphasis on separation of powers, federalism, citizenship, judicial process and civil rights, political parties, public opinion, pressure groups, and political behavior. **2.** Structure, composition, and operation of the legislative and executive branches; analysis of policy making and the major executive departments. Need not be taken in sequence.

Political Science 5. Political Cultures of India and the United States. Three credits. A cross-cultural study of the political customs, traditions, ideologies, and institutions of India and the United States. It is recommended that the student have completed Political Science 1 before taking this course.

Political Science 14. Local Government in Wisconsin. Two or three credits. **Two credits:** Structure and function, political and administrative processes of cities, counties, school and special districts, towns and villages in Wisconsin, with comparisons with similar entities in other states; emphasis on city planning, problems of conservation and law enforcement. Not open to students who have completed more than two credits of Political Science 15. **Three credits:** In addition to the above, introduction to the political patterns of the State, and the political and administrative processes of Wisconsin, especially as related to state-local relations. Not open to students with credit in Political Science 15. Prerequisite: Sophomore standing.

Political Science 15. Survey of State and Local Government. Two or three credits. **Two credits:** Structure, functions, and political processes of state governments; emphasis on the administrative and budgetary process; introduction to intergovernmental cooperation; emphasis on Wisconsin. Not open to students who have completed more than two credits of Political Science 14. **Three credits:** In addition to the above, an introduction to the structure and problems of cities, counties, special districts, towns and villages; emphasis on Wisconsin. Not open to students with credit in Political Science 14. Prerequisite: Sophomore standing.

Political Science 16-17. Introduction to Modern Politics. Each two credits. **16.** Analysis of major conceptions of politics and the state; emphasis on distinctions between democratic and non-democratic systems. **17.** Theoretical and comparative study of patterns and institutions of government, such as constitutions, systems of representation, majority and minority rule, and executive-administrative institutions. Need not be taken in sequence. Prerequisite: Sophomore standing.

Political Science 80. Introduction to International Relations. Three credits. A survey of the general principles of international relations and organizations. Prerequisite: Sophomore standing.

Political Science 110. The American Presidency. Three credits. 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.

Political Science 111-112. American Constitutional Law. Each three credits. 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. **111.** Constitutionalism and judicial review; the powers of the national executive, legislative, and judicial branches. **112.** Civil liberties and civil rights; due process of law; equal protection of the laws. Need not be taken in sequence.

Political Science 113. Political Parties and Elections. Three credits. A description and critical examination of political parties and voting behavior in the United States.

Political Science 114. National Politics —Issues and Answers. Two or three credits. An intensive analysis of selected national political issues; their origin, development, proposed solutions, and political impact.

Political Science 120. Elements of Public Administration. Three credits. Theory and practice of public administration in the United States. (Not open to students who have had Political Science 108.)

Political Science 121. Public Administration — Structure and Process. Three credits. Structure, work methods, and organization in governmental agencies; emphasis on line and staff agencies; administration of regulatory commissions, national and state, with emphasis on Wisconsin.

Political Science 122. Public Personnel Administration. Three credits. Problems and practices of selection, training, and organization of personnel administration; emphasis on Wisconsin.

Political Science 123. The Budgetary Process. Three credits. Determination and execution of public agency budgets; emphasis on preparation, authorization, and political considerations of the government agency budget; emphasis on Wisconsin.

Political Science 125-126. Problems of Local Government Administration. Each three credits. **125.** Theory and practice of local government administration; contrasts and comparisons with state and national public administration; emphasis on Wisconsin. **126.** Research in local government administration. The student will spend the bulk of his time working with a local governmental agency, under the supervision of the instructor. On the basis of this experience, the student will be expected to complete a research paper on a topic previously agreed on by the instructor. Prerequisite: Political Science 15 and 125.

Political Science 130. The Legislative Process. Three credits. An analysis of the forces and procedures that determine the formation of law and public policy in the United States.

Political Science 132. Interest Groups in Politics. Three credits. The nature and influence of pressure groups in American politics; a critical analysis of their effect upon the democratic way of life.

Political Science 141. Urban Government. Three credits. Analysis of urban government in the United States; special attention to governmental structure, powers, and political patterns; problems unique to urban government; emphasis on Wisconsin. Prerequisite: A minimum of three credits in Political Science 14 and/or 15, or consent of instructor.

Political Science 142. Local Rural Government. Three credits. Critical examination of rural governmental structure

and problems; powers and limitations; functions of counties, villages, towns, and special purpose districts; emphasis on Wisconsin. Prerequisite: A minimum of three credits in Political Science 14 and/or 15, or consent of instructor.

Political Science 143. Government and Politics of Metropolitan Areas. Three credits. Special attention to the political and governmental problems resulting from the development of the metropolis; analysis of recent trends in the development of metropolitan governmental units. Prerequisite: A minimum of three credits in Political Science 14 and/or 15, or consent of instructor.

Political Science 144. Intergovernmental Relations. Three credits. Detailed consideration of the 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. Prerequisite: A minimum of three credits in Political Science 14 and/or 15, or consent of instructor.

Political Science 155. The Judicial Process. Three credits. The nature and role of law and of the Judiciary in American democracy; basic American judicial concepts; judicial organization, selection, tenure, and procedure.

Political Science 160. Major Governments of Western Europe. Three credits. Comparative study of the governments and politics of the United Kingdom, France, and the Federal Republic of Germany.

Political Science 161. Major Governments of South and Southeast Asia. Three credits. Comparative study of the governments and politics of India, Pakistan, and Indonesia.

Political Science 162. Government and Politics of the Soviet Union. Three credits. 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 machinery of government.

Political Science 163-164. Government and Politics of Latin America. Each three credits. Study of the political and governmental institutions of selected Latin American countries; emphasis on aspects and characteristics contributing to uniqueness of these institutions; analysis of party systems and political behavior of the area. Need not be taken in sequence.

Political Science 166. Government and Politics of the Middle East. Three credits. A comparative study of the political institutions, ideas, and modernization processes in the Arab world, Iran, Israel, and Turkey.

Political Science 170-171-172. Western Political Thought. Each three credits. **170.** Critical analysis of political thinkers of the early Western world, such as Plato, Aristotle, Cicero, St. Augustine, St. Thomas Aquinas, and Machiavelli. **171.** Critical analysis of political thinkers of the modern Western world, such as Hobbes, Locke, Montesquieu, Rousseau, Burke, Bentham, Hegel, Marx, Mill, and Kropotkin. **172.** Critical analysis of political thinkers of the contemporary Western world, such as Russell, Laski, Green, Lippmann, Sorel, Lenin, Mannheim, Fromm, Viereck, and Maritain. Need not be taken in sequence.

Political Science 173-174. American Political Thought. Each three credits. **173.** to 1865. **174.** since 1865. Need not be taken in sequence.

Political Science 176-177. Political Thought of India and China. Each three credits. **176.** before the impact of the West. **177.** since the impact of the West. Need not be taken in sequence.

Political Science 179. Scope and Methods of Political Science. Three credits. Examination of political science as a discipline through consideration of the materials, approaches, methods, and modes of presentation used in contemporary research.

Political Science 180. International Organization. Three credits. A survey of the proposals and experiments in international organizations; the League of Nations and the United Nations.

Political Science 181. International Politics. Three credits. Political relations among modern states; forces which motivate foreign policy; the role of power; conflict between free and totalitarian systems.

Political Science 182. The Foreign Policy of the Soviet Union. Three credits. An analysis of the Russian national and Marxist bases of the foreign policy of the Soviet Union.

Political Science 199. Special Work. Upper class students majoring or minoring in Political Science may, by agreement with the chairman 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.

Psychology

Mr. Beck, chairman; Mr. Coker, Mrs. Dietrich, Mr. Fang, Mr. Albert Harris, Mr. Hekmat, Mr. Horn, Miss Jiloca, Mr. Elmer Johnson, Mr. Kortenkamp, Mr. Leafgren, Mr. Lerand, Mr. Littmann, Mr. Pusey, Mr. Schulman, Mr. Barry Smith, Mr. Tierney.

A. A major in Psychology consists of 30 credits, including Psychology 11, 12, 16, 110, 120, 124, 130, and at least nine additional elective credits in psychology.

B. A minor in Psychology consists of 18 credits in Psychology, including Psychology 11. The student is encouraged to build background, including courses in biology, philosophy, and sociology.

Psychology 11. General Psychology. Three credits. An introductory survey course in the study of experience and behavior. Prerequisite: Sophomore standing.

Psychology 12. Laboratory in Psychology. One credit. Procedures and methods for collecting and evaluating psychological data. Two hours laboratory per week. Prerequisite: Psychology 11 or concurrent registration therein.

Psychology 13. Psychology of Childhood. Three credits. Studies in child behavior and development and their implications for child-adult relationships; experiences in child study methods. Prerequisite: Psychology 11.

Psychology 16. Psychology of Adjustment. Three credits. Nature of adjustment and the conditions related to mental health in normal persons. Prerequisite: Psychology 11.

Psychology 17. Industrial Psychology. Three credits. Theoretical and practical psychological bases of employee morale, job analysis, selecting and training of workers, working conditions, production, supervision, merit rating, and occupational adjustment. Prerequisite: Psychology 11.

Psychology 100. Cognitive Processes. Two or three credits. Theoretical and experimental studies of thinking behavior, concept formation, symbolic processes, creativity, information theory, systems theory, decision theory, cognitive consistency theory. Prerequisite: Psychology 11.

Psychology 101. Fundamentals of Psychological Testing. Three credits. Introduction to the theory of psychological testing with a consideration of the various characteristics of psychological tests; study of the most widely used intelligence, aptitude, interest, and personality tests. Prerequisite: Two courses in Psychology.

Psychology 103. The Psychology of Adolescence. Three credits. Behavior of adolescents; emphasis on the physiological and cultural determinants of personality and consideration of the problem of adjustment encountered by youth in society. Prerequisite: Psychology 11.

Psychology 110. Theories of Personality. Three credits. Theories of psychology exploring the major contemporary approaches to the study of behavior; clinical and experimental contributions to the understanding of the personality and its structure. Prerequisite: Psychology 11.

Psychology 115. Social Psychology. Three credits. Same as Sociology 115. 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. Prerequisite: Sociology 1 or Psychology 11.

Psychology 120. Experimental Psychology. Four credits. Theory of measuring human behavior; research techniques and methodology; experimental approaches to sensation, perception and learning. Three hours lecture, three hours laboratory per week. Prerequisite: Psychology 11; Psychology 130 or consent of the instructor.

Psychology 124. Learning. Three credits. A survey of simple and complex learning, including conditioning, sensory-motor learning, language learning, problem-solving, with emphasis on contemporary theories. Prerequisite: Psychology 11.

Psychology 128. Motivation and Emotion. Three credits. The nature and development of emotion, attitude, motive, and the role of these processes in thinking and behavior. Prerequisite: Psychology 11.

Psychology 130. Statistics for Psychologists. Four credits. 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 and covariance; forms of experimental design. Three hours lecture, two hours laboratory per week. Prerequisite: Psychology 11.

Psychology 135. Abnormal Psychology. Three credits. Study of behavior disorders, including the psychoses, neuroses, character disorders, and mental deficiencies. Prerequisite: Psychology 16, or consent of the instructor.

Psychology 141. Contemporary Viewpoints. Three credits. A systematic view of psychology through an examination of the major systems including structuralism, behaviorism, gestalt, and psychoanalysis; current trends in theory. Prerequisite: Psychology 120, and 124 or 128, or consent of the instructor.

Psychology 199. Special Work. Upper class students majoring or minoring in Psychology may, by agreement with the chairman of the Psychology 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.

Public Administration

The interdepartmental minor in Public Administration is administered by the Political Science Department. It is designed for the student who is interested in

graduate study in the field of Public Administration, or in training for the more technical aspects of governmental service or of the various research and consulting agencies.

A minor in Public Administration consists of 30 credits including:

1. Political Science 1 and 2, or 15 and 125.
2. Political Science 120 or 121.
3. Political Science 122 or 123.
4. Political Science 141 or 142 or 143 or 144.
5. Economics 124.
6. Sociology 100 or 106.
7. Remaining credits to be chosen from the following, in consultation with the coordinator: Biology 40; Business 180; Economics 122, 146, 163; Forestry 127; Geography 173; Mathematics 10; Natural Resources 191, 192, 194; Sociology 107, 125, 166.

Pulp and Paper—Chemical Technology

See **Chemistry.**

ROTC (Reserve Officers Training Corps)

See **Military Science.**

Russian

See **Foreign Language.**

Russian and East Central European Studies

Mr. Soroka, adviser.

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:
   Geography 130 (The Soviet Union); History 141-142 (Russian History and Civilization); History 143-144 (Eastern and Central Europe); Philosophy 131 (History of Pre-Revolutionary Russian Philosophy); Philosophy 132 (Development of Soviet Ideology); Political Science 162 (Government and Politics of the Soviet Union); Political Science 182 (Foreign Policy of the Soviet Union); Russian and East Central European Studies 199 (Special Work) one to three credits.

2. The remainder of the 34 credits shall be in related courses chosen in consultation with the Russian and East Central European Studies Adviser.

3. Four semesters of Russian, or any other language of the area, beyond the first year level are required.

B. A minor in Russian and East Central European Studies consists of at least 24 credits:

1. At least 16 credits selected from among the content courses.

2. The remaining credits shall be related courses chosen in consultation with the Russian and East Central European Studies adviser.

3. Eight credits of Russian, or any other language of the area, beyond the first year level are strongly recommended.

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 physical education) required for a degree.

Russian and East Central European Studies 199. 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.

Social Science

Mr. Gibson, adviser.

A Social Science major may be earned in either of two ways. Students in the Secondary Education curriculum should select plan B below, in order to meet Wisconsin certification requirements for high school Social Studies teachers.

A. A Social Science major for Letters and Science students consists of the following:

1. Meeting requirements for the minor in one of the following fields:
   a. Economics.
   b. History.
   c. Political Science.
   d. Sociology.

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. Economics.
   b. Geography (cultural), consisting of Geography 10, plus three credits in advanced cultural Geography.
   c. History (except History 11-12).
   d. Political Science.
   e. Psychology.
   f. Sociology.

3. Sufficient additional credits to total 45 or more, with at least 15 of the total in courses numbered 100 or above.

B. A Social Science major for students in Secondary Education consists of the following:

1. A minimum of 54 credits in Social Science in the fields listed below, with at least one full year of course work in Economics, cultural Geography, Political Science, and Sociology, as indicated below.
   a. History: Same as the stated minor in History, with History 11-12 to contribute to the fulfillment of the requirement.
   b. Economics: Required — Economics 11; Elective — Economics 12, or any

three-credit course numbered 100 or above approved by the Social Science adviser.

c. Geography: Required—Geography 10; Elective—any three-credit course in cultural geography, numbered 100 or above, approved by the Social Science adviser.
d. Political Science: Required—Political Science 1; Elective—any three-credit course numbered 100 or above approved by the Social Science adviser.
e. Sociology: Required—Sociology 1; Elective—any three-credit course numbered 100 or above approved by the Social Science adviser.
f. Additional credits to total 54 selected from the five fields listed above.

C. A minor in Social Science consists of 24 credits, including at least one full year of course work in Economics, cultural Geography, Political Science, and Sociology, as indicated below:

1. Economics: Required — Economics 11; Elective — Economics 12 or any three-credit course numbered 100 or above approved by the Social Science adviser.
2. Geography: Required—Geography 10; Elective—any three-credit course in advanced cultural Geography approved by the Social Science adviser.
3. Political Science: Required—Political Science 1; Elective—any three-credit course numbered 100 or above approved by the Social Science adviser.
4. Sociology: Required — Sociology 1; Elective — any three-credit course numbered 100 or above approved by the Social Science adviser.

This minor will not be approved for certification as a teaching minor; it does not meet Wisconsin certification requirements for Social Studies teachers.

Sociology and Anthropology

Mr. Shipman, chairman; Mr. Ackley, Mr. Eugene Clark, Mr. Dixon, Mrs. Draper, Mrs. Fish, Mr. Fisher, Mr. Hertel, Mr. Maahs, Mr. Moore, Mr. Popiel, Mr. Tuthill.

A. A major in Sociology consists of 34 credits, 18 of which will be in courses numbered 100 or above. Sociology 1, 11 or 12, 114, 115, and 146 are required. In addition, a course in statistics is required.

B. A minor in Sociology consists of 18 credits, nine of which will be in courses numbered 100 or above. Sociology 1 and 146 are required. Students planning a teaching minor in Sociology need at least 22 credits to meet the minor requirement.

Sociology 1. Introduction to Sociology. Three credits. 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.

Sociology 2. Social Problems. Three credits. The field of social problems: theories explaining social and personal disorganization and deviation; selected contemporary problems analyzed and related to their social contexts. Prerequisite: Sociology 1.

Sociology 11. Prehistoric Man. Three credits. Human paleontology and evolution, prehistoric development of man and culture, subspeciation of Homo Sapiens, introduction of archaeological methodology. Prerequisite: Sociology 1, or sophomore standing.

Sociology 12. Man, Culture, and Society. Three credits. Anthropological principles, theories of culture and personality,

theories of culture, analysis of ethnographic studies. Prerequisite: Sociology 1, or sophomore standing.

Sociology 13. Criminology. Two or three credits. Analysis of crime as an institution, with reference to the behavior of those who define, engage in, or become the victims of criminal behavior. Prerequisite: Sociology 1 and sophomore standing.

Sociology 17. Marriage and the Family. Two or three credits. Institutional variations of marriage and family; the contributions of behavioral sciences to understanding the processes of courtship and marriage interaction. Prerequisite: Sociology 1, or sophomore standing.

Sociology 100. The American Community. Two or three credits. Analysis of community organization and the social processes influencing community behavior and change. Prerequisite: Sociology 1 or consent of instructor.

Sociology 102. Sociology in Education. Two or three credits. Cultural change and education; a study of social forces which influence the direction of knowledge and education.

Sociology 106. Population Problems. Three credits. Same as Economics 106. Demography, population theory, trends, and analysis; United States and world population. Prerequisite: Economics 11 or Sociology 1.

Sociology 107. Minority Groups. Two or three credits. A sociological study of the role of minorities in society, their influence, impact, and relationship to the larger society. Prerequisite: Sociology 1 or consent of instructor.

Sociology 110. Ways of Mankind. Three credits. Brief review of theories of man's pre-history, language, and culture; ethnographic approach to the cultures of several non-literate, folk, and urban-industrial societies. Not open to students taking Sociology 11 or 12.

Sociology 112. Culture and Personality. Three credits. 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. Prerequisite: Sociology 11 or 12 or 110.

Sociology 114. Methods of Sociological Inquiry. Two or three credits. The scientific method and its application to society; techniques of social investigation. Prerequisite: Sociology and senior standing; or consent of the instructor.

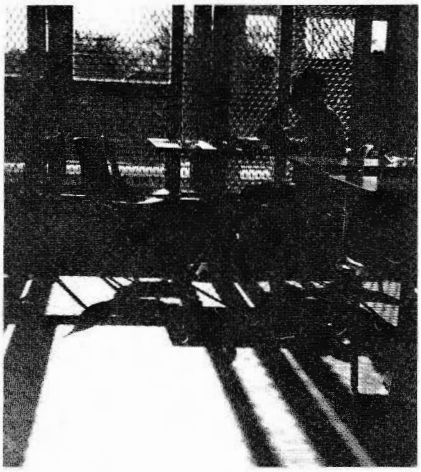
Sociology 115. Social Psychology. Three credits. Same as Psychology 115. Social learning and social habits in relationship to the development of the social self in groups: interaction, perception, motivation, attitudes, values, communication, roles in interpersonal relations. Prerequisite: Psychology 11 or Sociology 1.

Sociology 117. Sociology of the Family. Two or three credits. The family as a social institution, its place in different cultures and social strata, the impact of industrialization and urbanization. Prerequisite: Sociology 1.

Sociology 118. Juvenile Delinquency. Three credits. 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. Prerequisite: Sociology 1.

Sociology 119. Corrections. Two or three credits. Analysis of the institutionalized responses to criminal behavior through which society attempts to control and treat offenders. Prerequisite: Sociology 13 or 118.

Sociology 120. Social Stratification. Three credits. Caste, estate, and class systems and their relation to occupations and subcultures. Prerequisite: Sociology 1.



Sociology 123. Latin American Development. Three credits. An interdepartmental course in the development, modernization, and institutions of Latin America; analysis of the factors influencing development. A subtitle will be added to the title to describe the focus each time the course is offered. Same as Geography 123, History 123, and Latin American Studies 123. Prerequisite: Six hours of work in Latin American Studies content courses or the consent of the Latin American Studies adviser.

Sociology 125. Collective Behavior. Two or three credits. The sociology of organized and unorganized social actions; the mob, crowd, mass behavior, and social movements; the dynamics of mass persuasion. Prerequisite: Sociology 1.

Sociology 127. Propaganda and Public Opinion. Three credits. Theories and facts regarding propaganda and public opinion, mass communication and censorship, and a study of measurement and control of public opinion. Prerequisite: Sociology 1 or consent of instructor.

Sociology 128. Group Dynamics. Three credits. Analysis of small groups including leadership and group interaction; research techniques. Prerequisite: Sociology 1.

Sociology 130. Primitive Religion. Three credits. An anthropological study of the relationship between religion and other institutions in preliterate and peasant societies, and the impact of religion on the individual. Prerequisite: Sociology 1, or 12, or consent of the instructor.

Sociology 131. Sociology of Religion. Three credits. 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. Prerequisite: Sociology 1, or 12, or consent of the instructor.

Sociology 134, 135, 136, 137, 138, 139. Area and Regional Studies in Ethnology. Each two or three credits. Ethnological survey of various societies in each region; emphasis on the cultural organization of societies and the significance of social change. The course wil be offered in the following categories: **134 - Peoples of Europe; 135 - of Central and South America; 136 - of Africa; 137 - of Asia; 138 - of the Pacific; 139 - Indians of North America.** Prerequisite: Sociology 1, or 12, or 110, or consent of the instructor.

Sociology 140S. Field and Laboratory Techniques in Archaeology. Eight credits, summers only. Techniques, methods, and procedures of field and laboratory archaeology discussed and practiced in actual working conditions on archaeological excavation. Prerequisite: Consent of instructor.

Sociology 145. Development of Social Thought. Three credits. Origin of social thought and its development to the 19th century. Prerequisite: Sociology 1, or consent of the instructor.

Sociology 146. Development of Sociological Thought. Three credits. Sociological thought from Comte to the present. Prerequisite: nine credits in sociology including Sociology 1, or consent of instructor.

Sociology 147. Complex Organizations. Three credits. Study of theory and research literature on structures and processes of large scale formal organizations; includes analysis of bureaucratic and informal social systems in Western society. Prerequisite: Sociology 1.

Sociology 150. Socio-cultural Change in Emergent Countries. Three credits. Study of the problems and processes of development in emerging countries. Prerequisite: Sociology 1, or 12, or consent of instructor.

Sociology 160. Introduction to Social Welfare. Three credits. History and development of social welfare; contemporary programs in public and private welfare activities; the goals, philosophy, concepts, and methods of social work. Prerequisite: Sociology 1.

Sociology 163. Social Insurance. Two credits. Same as Economics 163. Various forms of public insurance, e.g., social security, unemployment insurance, compensation, retirement insurance and public welfare; theory and practice of public agencies of insurance; public insurance applied to industrial and agricultural development. Prerequisite: Economics 11 or consent of the instructor.

Sociology 166. Sociology of the Aged. Two or three credits. Growth of the aged population; a comparative view of the role of old people in various societies; factors that account for the changing position of the aged in society; problems of the aged and proposed solutions. Prerequisite: Sociology 1 or consent of the instructor.

Sociology 167. Sociology of Childhood and Adolescence. Two or three credits. Social influences on child and adolescent behavior; societal reaction to problems of childhood and adolescence; child welfare practices. Prerequisite: Sociology 1 or consent of the instructor.

Sociology 173. Urban Geography. Two or three credits. Same as Geography 173. Agglomerated settlements and their causes; individual cities, their population, land use and livelihood structures; the relations between cities and their adjacent regions.

Sociology 174. Urban Sociology. Three credits. Comparative and historical approach to cities; urban spatial structure, temporal patterns and population characteristics; ecological factors; the social structure and psychological aspects of urban metropolis; implications for policy and planning. Prerequisite: Sociology 1, or consent of instructor.

Sociology 180. Social Statistics. Three credits. Types of social statistics, sources of data, frequency distributions, averages, dispersions, probability, chi-square, correlation; application in sociological and anthropological research. Prerequisite: Sociology 1 or consent of the instructor.

Sociology 181. Laboratory in Social Research. Two or three credits. The conduct of sociological inquiry applied in a group research project at the community level. Prerequisite: Consent of the instructor.

Sociology 190. Seminar; Fields of Sociology. Two or three credits. Discussion of theory and research in sociology as it applies to general and special areas of study. Prerequisite: Senior standing and a major in Sociology; or consent of the instructor.

Sociology 199. Special Work. Each one to three credits. Upper class students majoring or minoring in Sociology may, by agreement with the chairman of the Sociology-Anthropology 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. Each may be repeated up to a maximum of six credits. **199K - Sociological Analysis and Research; 199L - Social Work and Social Administration; 199M - Anthropological Theory and Method; 199N - Sociology of Knowledge.**

Soils

See **Natural Resources.**

Spanish

See **Foreign Language.**

Special Studies

Special Studies 7. Dance Workshop. One to six credits. Dance training workshops and institutes. The workshop's area of concentration will appear as a subtitle each time the course is offered. Prerequisite: Consent of instructor.

Special Studies 9 (and 179). Drama Workshop. One to six credits. A program designed to provide the student with intensive laboratory experience. The workshop's area of concentration will appear as a subtitle each time the course is offered.

Special Studies 101. Travel Study. For each course in Travel Study which is organized, the number of credits and details of description will be approved through regular Curriculum Committee and faculty action.

Special Studies 110. Outdoor Education Workshop. Six credits. A summer session course designed to acquaint students with the opportunities for using the outdoors as a laboratory in teaching. Such things as school camping, field trips, crafts, nature study, conservation of natural resources, and special projects will be included. Staff members from various departments will share responsibility for conducting the workshop. A statement of the content of the course will be filed with the registrar each time the course is offered. The workshop will meet three hours daily. In addition, there will be some all day field trips and two all night campouts. A laboratory fee is charged to cover transportation costs and miscellaneous expenses.

Special Studies 179 (and 9). Drama Workshop. One to six credits. See the statement under Special Studies 9 (and 179).

Special Studies 197. Dance Workshop. One to six credits. Advanced training in Dance Education workshops and institutes. The workshop's area of concentration will appear as a subtitle each time the course is offered. Prerequisite: Consent of instructor.

Speech*

Mr. Croft, chairman; Mr. Alusow, Mr. Davidson, Mr. Dowling, Mr. Dreyfus, Miss Isaacson, Mr. Kauffeld, Miss Kyes, Mrs. McQueen, Mr. Phillips, Mr. Rogers, Miss Way, Mr. Wesolowski.

A. **A major in Speech in the College of Letters and Science** consists of 30 credits, 14 of which must be in courses numbered 100 or above. **The major in the College of Education** requires 34 credits and must include Speech 12.

B. **An interdepartmental major in Speech and Drama in the College of Education** consists of 39 credits, 14 of which must be in courses numbered 100 or above. The following courses are required:
   1. Speech 1, or equivalent; Speech 12 or Drama 12; Speech or Drama electives (3 or more credits) selected to satisfy the humanities requirement.

*See page 74.

2. Speech 14 or 28, 112 or 124, 103, 120; three credits of Speech electives.
3. Drama 3, 7, 40, 175; three credits of Drama electives.

C. A minor in Speech in the College of Letters and Science consists of 18 credits; in the **College of Education** it consists of 22 credits including Speech 12.

Speech 1. Introductory Speech. Two or three credits. Theory and practice of the principles of speech composition and presentation.

Speech 3. Voice and Diction. Two credits. Improvement of the speaking voice, analysis and correction of poor speech patterns, and the study of syllabification and word emphasis to convey meaning more clearly.

Speech 4. The Field of Speech. Three credits. Analysis of the nature, forms, and scope of oral discourse.

Speech 6. Parliamentary Procedure. Two credits. Basic principles of parliamentary law; rules of procedure; practice in conducting meetings.

Speech 9. The Process of Communication. Three credits. General concepts and models for the analysis of communication situations and systems.

Speech 12. Forensic Activities. Three credits. Same as drama 12. Theory and practice for all public school forensic activities; recommended for prospective teachers. Prerequisite: Sophomore standing or consent of instructor.

Speech 13. Fundamentals of Public Speaking. Two credits. Frequent practice in preparation and presentation of speeches, with moderate emphasis on analysis and evaluation. Prerequisite: Sophomore standing or consent of instructor.

Speech 14. Argumentation and Persuasion. Three credits. Motivational rhetoric; practice in preparation and delivery of oral argument. Prerequisite: Sophomore standing, or consent of the instructor.

Speech 18. Speech Dynamics in Early Childhood. Three credits. Influence of physical maturation and learning on development of speech; the role of communication in childhood; inter-relationships of creativity and communication. Prerequisite: Sophomore standing.

Speech 20. Survey of Mass Media in America. Three credits. Same as Journalism 20. A survey and analysis of the history, regulation, scope, social implications, and problems of the mass communications media. Prerequisite: Sophomore standing.

Speech 26. Laboratory Work (Forensics). One credit. Practical work in forensics, by special arrangement with the instructor. Prerequisite: Sophomore standing.

Speech 28. Survey of Public Address. Three credits. A historical and analytical study of outstanding speakers from the Greeks to the present. Prerequisite: Sophomore standing.

Speech 103. Advanced Public Speaking. Two or three credits. The preparation of a variety of expository talks delivered in an extemporaneous manner; emphasis on analysis and evaluation in depth. Prerequisite: Speech 1 or consent of the instructor.

Speech 104. Advanced Argumentation and Persuasion. Two credits. Projects in analysis, research, ordering of arguments and evidence, refutation, composition and delivery. Prerequisite: Consent of the instructor.

Speech 107. Psychology of Speech. Three credits. Principles of psychology as they apply to speech, with emphasis on experimental research.

Speech 112. Speech Composition. Three credits. Speech composition, with em-

phasis on theory of style, models of speech composition, and practice in speech writing and delivery.

Speech 120. Group Discussion. Three credits. Recognition and definition of problems, critical analysis, possible solution; the function of discussion in our society.

Speech 124. Theory of Speech Criticism. Three credits. Introduction to the basic concepts, terminology, methods and literature of rhetorical criticism, classical and modern.

Speech 126. Laboratory Work (Forensics). One credit. Practical work in forensics, by special arrangement with the instructor.

Speech 130. Business and Professional Communication. Two or three credits. A study of basic issues or problems in business and professional communication; emphasis on the case method and laboratory experience.

Speech 172. Communication Theory. Three credits. Analysis and application of philosophical, behavioral, and other conceptual frameworks in communications theory.

Speech 180. Perspectives in Speech Education. Three credits. Philosophies of speech education; its leading practitioners and contemporary issues.

Speech 190. Seminar. Three credits. Study and discussion of a new development, special problem, or area of interest in the field of speech. A subtitle will indicate the emphasis each time the course is offered. Prerequisite: Senior standing and the consent of instructor.

Speech 199. Special Work. Upper class students majoring or minoring in Speech may, by agreement with the chairman of the Speech 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.

Speech Pathology and Audiology

Mr. Gerald F. Johnson, chairman; Mr. Chappell, Mr. Jensen, Mr. Leonard, Mr. Meyer, Miss Tufts, Mr. Tyszka, Mr. Wentland.

A student majoring in Speech Pathology and Audiology and/or Deaf Education must be advised by a faculty member in this department. The student has three options: (1) education certification in the College of Education, in Speech Pathology and Audiology, (2) a major in the College of Applied Arts and Science, in Speech Pathology and Audiology, or (3) education certification in the College of Education, in Deaf Education. No minor is available.

A. **A broad field major in Speech Pathology and Audiology** in the **College of Education** consists of the following: 54 credits selected from Speech Pathology and Audiology and Psychology. The following are required courses:
   (a) Speech Pathology and Audiology: 8 and/or 66, 60, 62, 64, 151, 161, 190 and 195; additional courses to total at least 34 credits.
   (b) Psychology: 11, 13, and 16.
   (c) Eleven credits from (a) or (b) above so as to total 54 credits.

   The following course work is necessary to meet the certification requirements in the College of Education: Education 106L, 112, 121, 184, and 198.

B. **A major in Speech Pathology and Audiology in the College of Applied Arts and Science** consists of the following: Speech Pathology and Audiology 8 and/or 66, 60, 62, 64, 151, 161, 190, and 195 and additional courses to total at least 34 credits in Speech Pathology and Audiology. This major does not meet the State of Wisconsin Certification requirements in Wisconsin Public Schools.

C. **A major in Deaf Education** is described under the heading "Deaf Education" earlier in this section of the catalog.

Students will be required to maintain an academic record that is consistent with departmental standards, and they must achieve proficiency as speech and hearing clinicians. Students who do not meet these standards will not be considered as majors by the Department.

The Department also offers a Master of Science degree and students are encouraged to take the master's degree sequence before they consider employment.

Remedial Speech and Hearing Service

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

Speech Path/Aud 8. Introduction to Speech Pathology and Audiology. Three credits. Introduction to the problems of articulation, voice, stuttering, cleft palate, aphasia, cerebral palsy, delayed speech, mental retardation, and hearing loss.

Speech Path/Aud 60. Introduction to Phonetics. Three credits. Descriptive and scientific analysis of speech; study and use of the International Phonetic Alphabet, training in auditory discrimination, transcription skill, and the scientific measurement and analysis of speech. Prerequisite: Sophomore standing.

Speech Path/Aud 62. Articulation Disorders. Three credits. Etiology and diagnosis of articulation disorders; examination of the principles of therapy and their application in therapy procedures. Prerequisite: Sophomore standing.

Speech Path/Aud 64. Speech and Hearing Science. Five credits. Developmental and gross anatomy and physiology of the human systems pertaining to speech and hearing, including dissections of comparative specimens. Three hours lecture, four hours laboratory each week. Prerequisite: Sophomore standing.

Speech Path/Aud 66. Normal Development of Speech and Hearing. Three credits. Receptive and expressive aspects of normal development of speech and hearing studied in detail and compared to factors contributing to abnormal development. Prerequisite: Sophomore standing.

Speech Path/Aud 80. Speech Correction for the Classroom Teacher. Three credits. A study of the disorders of speech and hearing, such as: articulation, voice, stuttering, cleft palate, aphasia, cerebral palsy, delayed speech, mental retardation, and hearing loss; suggestions as to how the classroom teacher can aid the therapeutic process. Not open to majors in Speech Pathology and Audiology or to those who have had Speech Path/Aud 8. Prerequisite: Sophomore standing.

Speech Path/Aud 95. Practicum. One or two credits. Practical experience in the use of diagnostic procedures and examination routine used in the speech and hearing clinic. Practicum will include observation and/or supervised therapy with speech and/or hearing defective persons. At least 45 hours of clinical practice will be required for each credit. Prerequisite: Sophomore standing.

Speech Path/Aud 107. Psychology of Speech. Three credits. Principles of psychology as they apply to speech, with emphasis on experimental research.

Speech Path/Aud 150. Summer Camp for the Deaf and Hearing Impaired. Four to six credits. Practicum experiences; topical information on counseling, guidance, play techniques, natural language development, adaptive speech and hearing procedures. Prerequisite: Physical Education 41 and senior standing.

Speech Path/Aud 151. Basic Procedures of Audiology and Audiometry. Three credits. Nature of hearing; measurement and evaluation of hearing acuity; supervised testing.

Speech Path/Aud 152-153. Hearing Rehabilitation I and II. Each three credits. **152. Lipreading.** History, methods, materials, and research pertaining to lipreading. **153. Auditory Training.** History, methods, materials, and research pertaining to auditory training.

Speech Path/Aud 154. Audiometry. Three credits. Techniques utilized in evaluating the auditory function; pediatric, geriatric, G.S.R., Bekesy, and speech audiometry. Prerequisite: Speech Path/Aud 151.

Speech Path/Aud 155-156. Language for the Deaf and Hearing Impaired. Each three credits. Principles and methods of developing language skills; vocabulary development, English composition, development of receptive and expressive oral and written language.

Speech Path/Aud 157. Speech for the Deaf and Hearing Impaired. Four credits. Multisensory approach for the teaching of speech; articulation, voice, sentence rhythm, ear training utilizing residual hearing, kinesthesis, visual skills, and speech intelligibility.

Speech Path/Aud 158. Methods of Teaching the Deaf and Hearing Impaired. Four credits. Methods of teaching in group and individual situations; reading, writing, social studies, arithmetic, science, language arts, vocational training and physical education as it applies to special techniques for the deaf; demonstrations and observations of methods.

Speech Path/Aud 159. History, Philosophy, and Program Development of Deaf Education. Three credits. Theories and practices in curriculum planning with emphasis on traditional and experimental programs.

Speech Path/Aud 160. Organic and Related Speech Disorders. Three credits. Etiology and symptomatology of organic and related speech disorders that result in speech and language problems of children and adults, with emphasis on cerebral palsy, aphasia, mental retardation, and other related language disorders.

Speech Path/Aud 161. Stuttering: Theories and Therapies. Three credits. Intensive study of causes and treatment of stuttering; practicum required.

Speech Path/Aud 170. Voice Disorders. Three credits. Disorders of the various

dimensions of the voice; functional and organic etiologies; diagnosis and therapy procedures. Prerequisite: Consent of instructor.

Speech Path/Aud 190. Senior Seminar. Three credits. Required of all majors in Speech Pathology and Audiology. Each student will be required to identify and investigate a problem for further study. Class meetings will be devoted to individual and group discussions of current problems and research in Speech Pathology and Audiology. Prerequisite: Consent of instructor.

Speech Path/Aud 195. Advanced Practicum. One to four credits. Advanced clinical experience in diagnosis, testing, and therapy with speech and/or hearing defective persons in the Speech and Hearing Clinic. At least 45 hours of clinical practice will be required for each credit. Prerequisite: Consent of instructor.

Speech Path/Aud 199. Special Work. Upper class students majoring in Speech Pathology and Audiology may, by agreement with the chairman 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.

Water

See **Natural Resources.**

Wildlife

See **Natural Resources.**

Faculty and Staff

† Indicates part time.
TIA indicates Teacher Improvement Leave.
Date indicates beginning year of service at WSU-Stevens Point.

Alvin A. Abbott, Assistant Professor of Political Science, 1966 ■ A.B., Wittenberg College; M.A., Ohio State University.

Margery V. Aber, Assistant Professor of Music, 1967 ■ B.M., Oberlin College; M.A., Columbia University.

Richard C. Ackley, Instructor in Sociology, 1967 ■ B.S., Western Michigan University; M.A., University of Michigan.

Howard C. Adams, Jr., Associate Professor of Foreign Language, 1966 ■ A. B., Kansas State Teachers College; M.A., University of Kansas.

Betty Jean Allar, Assistant Professor of Education, 1966 ■ B.S., Wisconsin State University-River Falls; M.S., University of Wisconsin. (TIA 1968-69.)

Seung Chul Ahn, Assistant Professor of Economics, 1968 ■ B.A., Seoul National University; Ph.D., University of California, Berkeley.

Rene C. Alltmont, Assistant Professor of History, 1966 ■ A.B., A.M., George Washington University.

Frank T. Alusow, Associate Professor of Speech, 1967 ■ B.A., Cornell College; M.A., University of Iowa.

Hiram Anderson, Jr.†, Lecturer in Economics, 1960 ■ Ph.B., D.J., University of Wisconsin.

Hudson Milo Anderson, Associate Professor of Education and English, 1967 ■ B.A., University of Michigan; M.A., Michigan State University; Ed.D., University of Oregon.

Raymond K. Anderson, Associate Professor of Natural Resources, 1966 ■ B.S., Wisconsin State University-Stevens Point; M.A., University of Michigan.

Robert T. Anderson, Associate Professor of Geography, 1953 ■ B.S., Wisconsin State University-Eau Claire; M.S., University of Wisconsin.

Oliver A. Andrews, Associate Professor of Chemistry, 1960 ■ B.S., Wisconsin State University-Stevens Point; M.S., University of Wisconsin.

Robert P. Artigiani, Assistant Professor of History, 1968 ■ B.A., University of Maryland; M.A., Ph.D., The American University, Washington, D.C.

Diane Bailiff†, Co-ordinator of Wood County Indian Tutoring Program, 1968.

John D. Bailiff, Associate Professor of Philosophy, 1966 ■ A.B., Stanford University; M.A., Ph.D., Pennsylvania State University.

Monica E. Bainter, Professor of Physics, 1947 ■ A.B., College of St. Teresa; M.A., University of Minnesota; Ph.D., University of Wisconsin.

John Baird, Instructor in Music, 1968 ■ B.M., M.M., Northwestern University, Evanston.

Mary Ann Baird†, Lecturer in Home Economics, 1962 ■ B.S., Stout State University; M.S.T., Wisconsin State University-Stevens Point.

Imre N. Bard, Instructor in History, 1966 ■ Gymnasium, Budapest XI; M.A., Marquette University.

Therese Bard†, Instructor; Staff Librarian, 1967 ■ M.L.S., University of California, Berkeley.

John W. Barnes, Associate Professor of Biology, 1956 ■ B.S., Ohio University; M.S., University of Minnesota.

Robert Baruch, Assistant Professor of Drama, 1967 ■ B.A., North Texas State University; M.A., University of Colorado.

Robert W. Bastian, Assistant Professor of Geography, 1964 ■ B.A., M.A., University of Minnesota; Ph.D., Indiana University.

Frederick M. Baumgartner, Professor of Natural Resources, 1965 ■ B.A., Butler University; M.A., University of Kansas; Ph.D., Cornell University.

William C. Baurecht, Instructor in English, 1967 ■ B.S., M.A., University of Wisconsin, Milwaukee.

F. Paul Baxter, Assistant Professor of Natural Resources, 1966 ■ B.S., M.S., South Dakota State University.

Lloyd H. Beck, Professor of Psychology, 1964 ■ A.B., A.M., Oberlin College; Ph.D., Brown University.

George C. Becker, Professor of Biology, 1957 ■ B.A., M.A., M.S., Ph.D., University of Wisconsin.

C. Alan Beeler, Instructor in Music, 1967 ■ B.M., Illinois Wesleyan University; M.A., Washington University, St. Louis.

Richard C. Behnke, Assistant Professor of Physical Education, 1967 ■ B.S., Winona State College; M.A., Northern Michigan University; P.E.D., Indiana University.

Leon E. Bell, Jr., Assistant Professor; Vice President for Business Affairs, 1963 ■ B.S., Virginia Military Institute.

Donald A. Benz, Associate Professor of Education, 1966 ■ B.E., Wisconsin State University-Stevens Point; M.A., Ph.D., George Peabody College.

Paul Ben-Zvi, Instructor in Art, 1968 ■ B.S., State University of New York, New Paltz; M.A., M.F.A., University of Iowa, Iowa City.

Daniel I. Berman, Instructor in English, 1967 ■ B.A., Marietta College; M.A., Purdue University.

John M. Bernd, Professor of Education, 1964 ■ B.S., Wisconsin State University-LaCrosse; Ph.M., Ph.D., University of Wisconsin.

Verlene Bernd†, Lecturer in English, 1964 ■ B.S., Wisconsin State University-Eau Claire; M.S.L.S., University of Wisconsin.

Mary Lou Biddlestone, Instructor in Physical Education, 1963 ■ B.S., Pennsylvania State College, Slippery Rock; M.S., University of Minnesota.

John R. Billings, Associate Professor of Philosophy, 1966 ■ B.S., Lehigh University; M.A., Brown University; Ph.D., Syracuse University.

Raymond F. Bishop, Sergeant Major, U.S. Army, Instructor in Military Science, 1968.

Philip R. Bjork, Assistant Professor of Geography, 1968 ■ B.S., Ph.D., University of Michigan; M.S., South Dakota School of Mines and Technology.

Gerhild Bjornson, Assistant Professor of English, 1968 ■ Ph.D., University of Munich, Germany.

Dean G. Blair, Associate Professor of Music, 1958 ■ B.M., Stetson University; M.M., Eastman School of Music, University of Rochester.

Lynn A. Blair, Assistant Professor of Physical Education, 1965 ■ B.S., MacMurray College; M.S., University of Southern Mississippi.

David E. Blank, Assistant Professor of Political Science, 1967 ■ B.A., Brooklyn College; M.A., Yale University.

Allen F. Blocher, Associate Professor of Physics, 1958 ■ B.S., McPherson College; M.S., University of Nebraska.

Melvin Bloom, Associate Professor of Foreign Language, 1966 ■ B.S., Ohio State University; M.A., Universidad de las Americas (Mexico City College); Ph.D., Universidad Interamericana.

Patricia Ann Bloom†, Lecturer in English, 1968 ■ A.B., M.A., Ohio University.

Thomas K. Bloom, Assistant Professor of English, 1968 ■ A.B., M.A., Ph.D., Ohio University.

Richard J. Boutelle, Instructor, Instructional Media Services Staff, 1968 ■ B.S., Florence State College; M.Ed., University of Massachusetts.

Robert O. Bowen, Assistant Professor of Physical Education, 1966 ■ B.S., M.S., University of Wisconsin.

James A. Bowles, Assistant Professor of Natural Resources, 1967 ■ B.S., Colorado State University; Ph.D., University of Wyoming.

Kenneth W. Boylan, Associate Professor of Mathematics, 1947 ■ B.S., M.A., University of Minnesota.

Lawrence R. Brandt, Assistant Professor of Geography, 1967 ■ B.S., Southwest Missouri State College; M.A., University of Arkansas.

Frieda E. Bridgeman, Assistant Professor of Drama, 1965 ■ B.S., Southeast Missouri State College; M.S., University of Wisconsin. (TIA Sem. I, 1968-69.)

Eugene N. Brodhagen, Associate Professor of Physical Education, 1956 ■ B.S., M.S., University of Wisconsin.

Kenneth J. Brown, Assistant Professor of Mathematics, 1966 ■ B.S., University of Chicago; M.S., University of Missouri.

Nancy Brown†, Instructor in Mathematics, 1966 ■ B.A., University of Chicago.

Theodore D. Brown, Instructor in Music, 1968 ■ B.M., Boston University; M.M., University of Michigan.

Evelyn Bruckner, Instructor in Education, Laboratory School, 1968 ■ B.S., M.S., Southern Connecticut State College.

Fred M. Buehler, Instructor in Library Science, 1968 ■ B.A., University of Minnesota, Duluth; M.S., University of Wisconsin.

David B. Buehrens, Assistant Professor of English, 1968 ■ A.A., St. John's College; A.B., Southwestern College; M.A., Rutgers University.

Mary Jo Buggs, Instructor in English, 1966 ■ B.S., M.S.T., Wisconsin State University-Stevens Point.

Martha M. Bunge, Instructor in Home Economics, 1968 ■ B.S., M.S., Iowa State University.

Venita Burling, Faculty Assistant, Laboratory School, 1968 ■ B.S., Wisconsin State University-Stevens Point.

William P. Burns, Associate Professor of Physical Education, 1960 ■ B.S., Wisconsin State University-LaCrosse; M.S., University of Wisconsin.

Lee A. Burress, Jr., Professor of English, 1958 ■ A.B., University of Wichita; B.D., Garrett Theological Seminary; Ph.D., Boston University. (On leave 1968-69.)

Robert W. Busch, University Center Program Adviser, 1967 ■ B.S., Concordia College; M.S., University of Wisconsin, Milwaukee.

Marilyn Butz†, Lecturer in Business Education, 1968 ■ B.S., MacMurray College.

William J. Cable, Associate Professor of Mathematics, 1962 ■ B.S., Wisconsin State University-Stevens Point; M.S., University of Wisconsin; M.S.S., University of Colorado.

James K. Campbell, Instructor in Education, Laboratory School, 1968 ■ B.A., M.A., Drake University.

Spencer V. Carey, Captain, Adjutant General Corps, U.S. Army, Assistant Professor of Military Science, 1968 ■ B.S., Florida A & M University.

Ann D. Carlson, Instructor in Business Education, 1965 ■ B.S., Wisconsin State University-Whitewater; M.A., State University of Iowa. (On leave 1968-69.)

Stanley L. Carlson, Instructor in Mathematics, 1965 ■ B.S., Wisconsin State University-River Falls; M.A., State University of Iowa. (TIA 1968-69.)

Richard G. Cary, Instructor in Mathematics, 1967 ■ B.S., Northern Illinois University; M.S., University of Illinois.

Mark Cates, Associate Professor of Political Science, 1963 ■ A.B., M.A., Indiana University.

Jagdish Chander, Associate Professor of Physics, 1966 ■ B.S., D.A.V., College Jullundur (Pb.); Panjab University; M.Sc., Birla Science College Pilani (Rajputana University); Ph.D., University of Erlangen.

Jyotsna Chander†, Lecturer in Mathematics ■ M.A.; M.A.; Panjab University.

T. K. Chang, Professor of Geography, 1956 ■ B.A., Lignan University; M.A., Yenching University; Ph.D., University of Nebraska.

Abraham Chapman, Professor of English, 1964 ■ University of Chicago; C.Sc., Institute of Modern Philology, Prague. (On leave 1968-69.)

Gerald E. Chappell, Associate Professor of Speech Pathology and Audiology, 1962 ■ B.S., Kent State University; M.A., Northwestern University; Ph.D., University of Wisconsin.

Kalyan Chatterjee, Assistant Professor of English, 1968 ■ B.A., M.A., University of Calcutta; M.A., University of Wisconsin.

Dakshinamurthy Chitharanjan, Assistant Professor of Chemistry, 1968 ■ B.Sc. (Hons) Annamalai University; M.Sc., Madras, India.

Robert P. Christeck, Instructor in Chemistry, 1968 ■ B.S., St. Cloud State College; M.S., University of South Dakota.

Darrell A. Christie, Instructor in Economics, 1964 ■ B.S., Jamestown College; M.S., University of Illinois.

Phyllis Christie†, Lecturer in Mathematics, 1968 ■ B.S., Jamestown College.

Eugene J. Clark, Instructor in Sociology, 1968 ■ B.A., University of Montana; M.S., Montana State University.

James E. Clark, Assistant Professor of Physical Education, 1965 ■ B.A., M.A., University of Michigan.

Alice L. Clawson, Professor of Physical Education, 1966 ■ B.S., Ohio State University; M.A., Ph.D., Texas Woman's University.

Claire F. Cleary, Instructor in Physical Education, 1966 ■ B.S., University of Minnesota, Duluth; M.S., Indiana University.

William H. Clements, Professor of Education; Director of Institutional Research and Studies; Director of Wisconsin Consortium of Research Development, 1955 ■ B.S., Wisconsin State University-Stevens Point; M.S., Ph.D., University of Wisconsin.

Fay F. Clifford†, Instructor in Home Economics, 1960 ■ B.A., University of North Dakota; M.S., University of Wisconsin.

Bruce Cody, Instructor in Art, 1967 ■ B.A., University of Wyoming; M.F.A., Washington State University.

Joanne J. Cogswell, Instructor in English, 1968 ■ B.A., College of St. Benedict; M.A., University of Minnesota.

Jack G. Cohan, Assistant Professor of Music; Director of Arts and Lectures, 1964 ■ B.A., University of Manitoba; M.M., Indiana University.

David L. Coker, Associate Professor of Psychology; Director, Counseling Center, 1966 ■ B.S., Western Illinois University; M.A., State University of Iowa; Ed.D., Indiana University.

Emily Jo Colley, Residence Hall Director, 1967 ■ B.A., Samford University; M.S., Indiana University.

Clifford Cone, Faculty Assistant, Instructional Media Services Staff, 1965 ■ B.S., Wisconsin State University-Stevens Point.

Richard L. Conlon, Associate Professor of Mathematics, 1964 ■ B.S., Creighton University; M.S., University of Michigan.

Frederick A. Copes, Assistant Professor of Biology, 1964 ■ B.S., Wisconsin State University-Stevens Point; M.S., University of North Dakota. (On leave 1968-69.)

Helen M. Corneli, Assistant Professor of English, 1962 ■ B.A., M.A., University of Illinois.

Duaine K. Counsell, Associate Professor of Physical Education, 1957 ■ B.S., Wisconsin State University-Stevens Point; M.S., University of Wisconsin.

Albert J. Croft, Professor of Speech, 1967 ■ B.A., Nebraska Wesleyan University; M.A., Ph.D., Northwestern University.

Mary Kay Croft†, Lecturer in English, 1967 ■ B.A., M.A., University of Chicago.

Frank W. Crow, Professor of History, 1947 ■ A.B., B.S., Northwest Missouri State Teachers College; Ph.M., Ph.D., University of Wisconsin.

Zoltan Csavas, Assistant Professor of Philosophy, 1968 ■ B.A., Monmouth College; M.A., Northwestern University.

Waldemar Dahl, Associate Professor of Foreign Language, 1966 ■ B.A., Institute of Foreign Language, Moscow; Ph.D., University of Kursk.

Grace Davidson, Coordinator of Menominee County Indian Tutoring Program, 1968 ■ B.A., Goshen College.

William C. Davidson, Assistant Professor of Speech, 1968 ■ B.A., Goshen College; M.A., University of Kansas.

Doris V. Davis, Associate Professor of Home Economics, 1952 ■ A.B., Indiana University; M.S., University of Wisconsin.

Mildred Davis, Associate Professor of Foreign Language, 1928 ■ A.B., M.A., State University of Iowa.

Janet R. Deadman, Residence Hall Director, 1967 ■ B.S., Wisconsin State University-Stevens Point.

D. Alan Decker, Instructor in Political Science, 1968 ■ A.B., Claremont Men's College; M.A., Claremont Graduate School.

Imogene De Smet, Assistant Professor of English, 1968 ■ B.A., College of St. Mary of the Wasatch; M.A., Creighton University; Ph.D., University of Toronto.

William J. Dick, Instructor in Music, 1967 ■ B.S., Kansas State University.

Coralie F. Dietrich†, Assistant Professor of Psychology, 1968 ■ B.A., Catholic University; M.A., Ph.D., University of Minnesota.

Donald J. Dietrich, Assistant Professor of History, 1968 ■ B.S., Canisius College; M.A., University of Minnesota.

Winthrop C. Difford, Professor; Dean of Graduate Studies; Director, Summer Session, 1968 ■ B.S., Mt. Union College; M.S., West Virginia University; Ph.D., Syracuse University.

Eva Lou Dillin, Associate Professor of Physical Education, 1960 ■ B.S., Taylor University; M.A., Michigan State University.

Rayma K. Ditson, Associate Professor of Home Economics, 1968 ■ B.M.O., Indiana University; M.A., Texas Woman's University; P.D., Columbia University; Ph.D., Texas Woman's University.

George I. J. Dixon, Professor of Sociology, 1954 ■ B.A., M.A., Montana State University; Ph.D., University of Nebraska.

Gertrude A. Dixon†, Lecturer in English, 1967 ■ B.A., Montana State University; M.A., Wisconsin State University-Stevens Point.

Robert K. Dodge, Assistant Professor of English, 1967 ■ B.A., Rice University; M.A., Ph.D., University of Texas, Austin.

Orthula C. Doescher, Assistant Professor of Home Economics, 1964 ■ B.S., M.S., South Dakota State University.

Fred R. Dowling, Professor of Speech, 1960 ■ B.S., Wisconsin State University-Oshkosh; Ph.M., Ph.D., University of Wisconsin.

Richard W. Doxtator, Assistant Professor of English, 1962 ■ A.B., College of Emporia; M.A., Kansas State Teachers College.

Catherine M. Draper, Associate Professor of Sociology, 1966 ■ B.S., Northern Illinois State University; M.A., Montana State University.

Lee Sherman Dreyfus, Professor of Speech and Journalism; President; 1967 ■ B.A., M.A., Ph.D., University of Wisconsin.

James R. Duggan, Instructor in Music, 1967 ■ B.M.E., Southeastern Louisiana College; M.M., Manhattan School of Music.

Burdette W. Eagon, Professor of Education; Dean, College of Education, 1950 ■ B.S., Wisconsin State University-Oshkosh; M.S., University of Wisconsin; Ed.D., George Peabody College for Teachers.

Sarah Jane Eagon†, Lecturer in Mathematics, 1968 ■ B.S., Wisconsin State University-Oshkosh; M.A., George Peabody College for Teachers.

John B. Ellery, Professor of Speech; Assistant to the President, 1968 ■ A.B., Hamilton College; M.A., University of Colorado; Ph.D., University of Wisconsin.

Dennis F. Eisenrath, Student Affairs, 1965 ■ B.S., Slippery Rock State College; M.S., Westminster College. (On leave 1968-69.)

Robert J. Engelhard, Assistant Professor of Natural Resources, 1967 ■ B.S., Utah State University; M.S., University of Denver; Ph.D., Michigan State University.

Arol C. Epple, Associate Professor of Biology, 1946 ■ B.S., M.S., University of Wisconsin.

Daniel Fabiano, Instructor in Art, 1967 ■ B.S., M.S., University of Wisconsin, Milwaukee. (TIA Sem. II 1968-69.)

Richard D. Face, Professor of History, 1963 ■ B.A., M.A., University of Cincinnati, Ph.D., University of Wisconsin.

Marcus C. S. Fang, Assistant Professor of Psychology; Counselor, 1968 ■ B.A., Southwestern University; M.A., Ph.D., University of Wisconsin.

Merl L. Farmer, Professor of Economics, 1963 ■ B.S. Ed., University of Idaho; M.A., University of Chicago; Ph.D., University of Illinois.

Carl L. Farnsworth, Assistant Professor of Chemistry, 1967 ■ B.S., M.A., Ph.D., University of Texas.

Seldon Faulkner, Professor of Drama, 1965 ■ B.A., Shurtleff College; M.A., St. Louis University; Ph.D., University of Iowa.

Gilbert W. Faust, Associate Professor of Chemistry; Director of Records—Registrar, 1935 ■ B.S., M.S., University of Wisconsin.

Frederick R. Fechtner, Assistant Professor of Biology, 1967 ■ B.S., M.S., University of Illinois.

Donald W. Ferguson, Assistant Professor; Staff Librarian, 1963 ■ B.A., University of Western Ontario; B.A.L.S., University of Michigan.

Ann L. Fields†, Faculty Assistant in Speech Pathology and Audiology, 1968 ■ B.S., University of Wisconsin, Milwaukee.

Dennis C. Fields, Instructor in Education, Laboratory School, 1967 ■ B.S., M.S.T., Wisconsin State University-Stevens Point.

Arthur M. Fish, Associate Professor; Staff Librarian, 1967 ■ A.B., Western Michigan University; M.A., M.A.L.S., University of Michigan.

Virginia K. Fish, Instructor in Sociology, 1967 ■ B.A., University of Minnesota; M.A., Central Michigan University.

Roger J. Fisher, Assistant Professor of Sociology, 1964 ■ A.B., University of Illinois.

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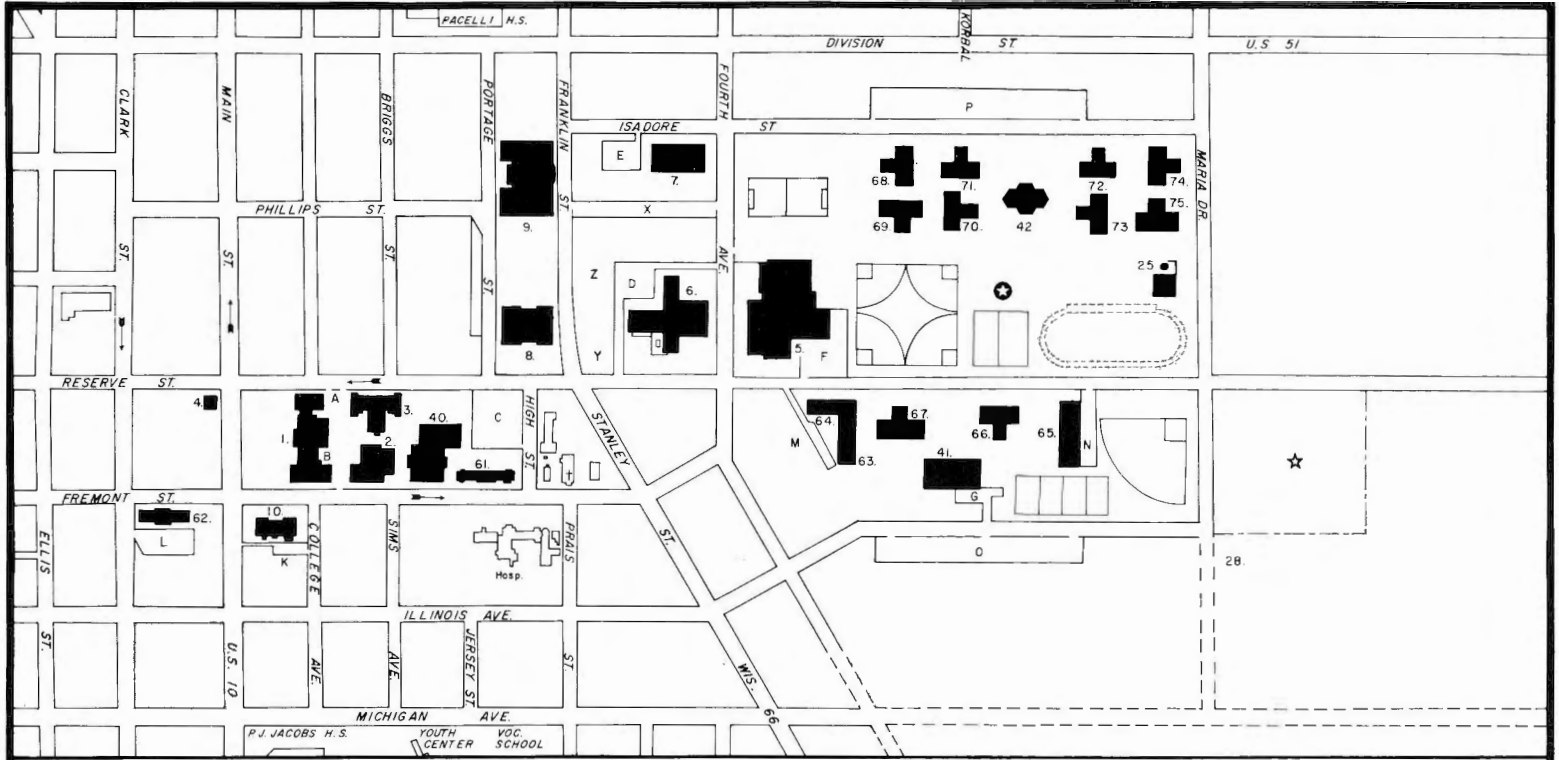


WISCONSIN STATE UNIVERSITY - *STEVENS POINT*

ACADEMIC BUILDINGS

1. MAIN
2. LIBRARY
3. LABORATORY SCHOOL
4. HOME MANAGEMENT HOUSE
5. PHYSICAL EDUCATION CENTER
6. SCIENCE CENTER
7. CLASSROOM CENTER
8. LEARNING RESOURCES CENTER
9. FINE ARTS CENTER
10. NELSON HALL

PHYSICAL PLANT BUILDINGS

25. HEATING PLANT
28. MAINTENANCE SHOPS

UNIVERSITY & RESIDENCE CENTERS

40. UNIVERSITY CENTER
41. ALLEN RESIDENCE CENTER
42. De BOT RESIDENCE CENTER

RESIDENCE HALLS

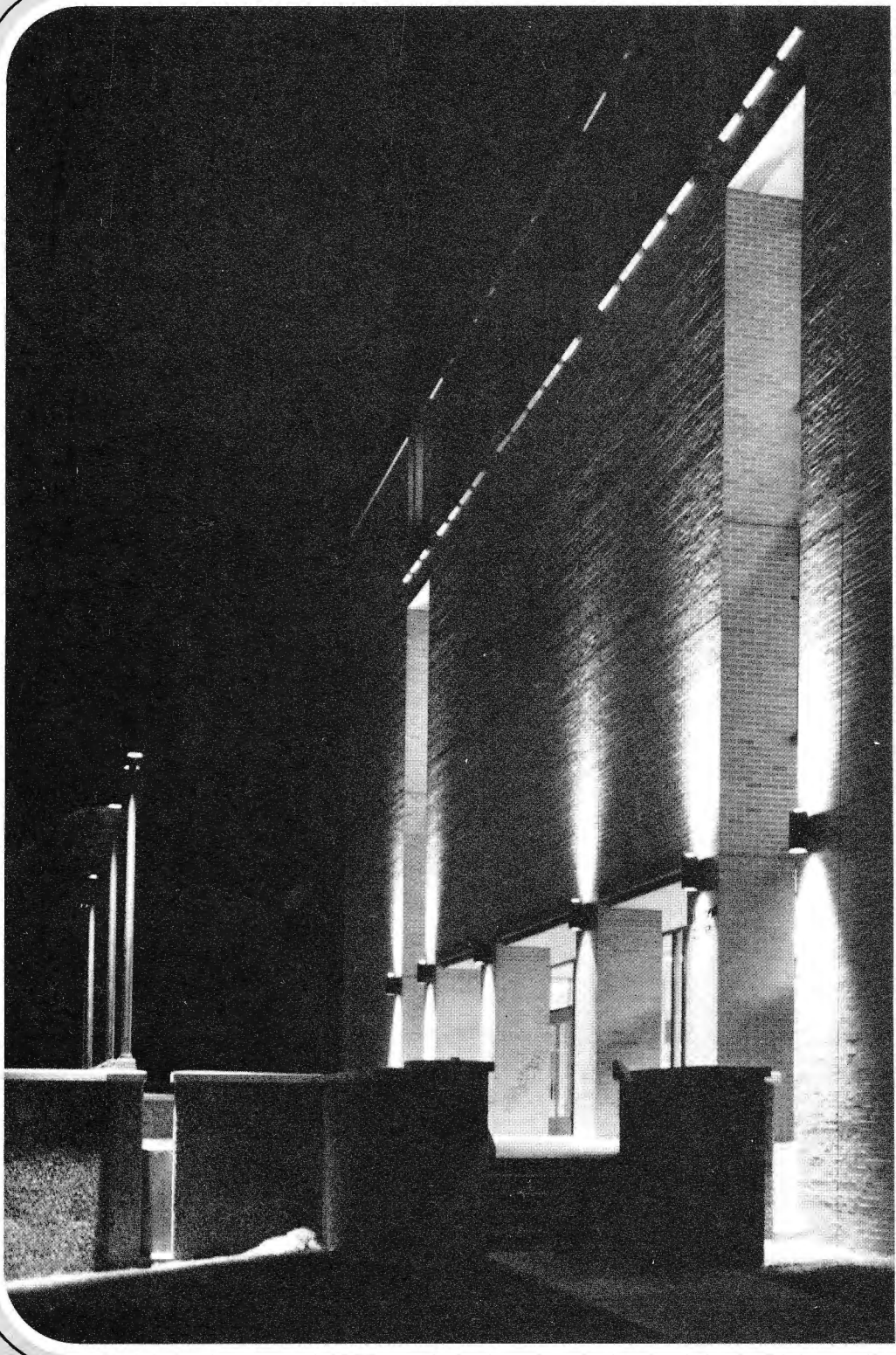
61. DELZELL HALL
62. STEINER HALL
63. PRAY HALL
64. SIMS HALL
65. HYER HALL
66. ROACH HALL
67. SMITH HALL
68. BALDWIN HALL
69. NEALE HALL
70. HANSEN HALL
71. SCHMEECKLE HALL
72. BURROUGHS HALL
73. KNUTZEN HALL
74. WATSON HALL
75.

PARKING AREAS

A. VISITORS & UNIVERSITY VEHICLES
B, C, D, E, F, ETC. PERMIT REQUIRED

ATHLETIC FIELDS

UPPER MISSISSIPPI WATER LABORATORY

SCALE IN FEET 0 300 600

OFFICE OF PLANNING & DEVELOPMENT