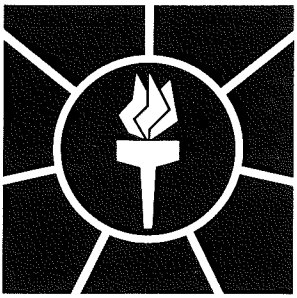
THE UNIVERSITY OF WISCONSIN CENTER SYSTEM

1971-1972 CATALOG

BARABOO-SAUK COUNTY CAMPUS • MARATHON COUNTY CAMPUS • MARSHFIELD-WOOD COUNTY CAMPUS • ROCK COUNTY CAMPUS • SHEBOYGAN COUNTY CAMPUS • WASHINGTON COUNTY CAMPUS • WAUKESHA COUNTY CAMPUS



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Baraboo-Sauk County Campus

Marathon County Campus

Marshfield-Wood County Campus

Rock County Campus

Sheboygan County Campus

Washington County Campus

Waukesha County Campus

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Chancellor's Message

The University of Wisconsin is proud of its long tradition of meeting the higher educational needs of this state. For more than 100 years the University has experimented and expanded in response to an ever increasing demand for more and better post-high school educational opportunities. In the process, it has advanced from a humble land grant beginning to its present position as one of the nation's finest universities.

One mark of a great institution is its continuing ability to adapt to the differing needs of those it serves, and in this way, as in so many others, the UW has demonstrated its greatness. Today, when the need for a comprehensive and flexible educational program is so vital, the UW stands ready to provide it. The University is now comprised of 16 different campuses, each with its own character and its own role to play in the process of higher education.

The University of Wisconsin Center System is one part of this complex. On seven campuses throughout the state, the Center System offers the kind of liberal education the UW is justly famed for — in a small college setting. Freshman-sophomore campuses at Baraboo, Janesville, Marshfield, Sheboygan, Waukesha, Wausau and West Bend have a complete liberal arts and preprofessional curriculum as well as adult and continuing education classes. Credits earned transfer not only to all other UW campuses, but to colleges and universities throughout the nation. All the campuses are modern and well-equipped. They all have highly qualified faculties and capable administrative and staff personnel. A wide range of social, cultural and athletic activities contributes to the effort of bringing a complete and rewarding educational program within the reach of all.

This is The University of Wisconsin Center System — one part of a great university, fulfilling an important part of a great need.

L. H. Adolfson

THE UNIVERSITY OF WISCONSIN
CENTER SYSTEM

THE UNIVERSITY OF WISCONSIN CENTER SYSTEM

The Center System as Part of the UW

The seven freshman-sophomore campuses which comprise The University of Wisconsin Center System are situated throughout the state. Located at Baraboo, Janesville, Marshfield, Sheboygan, Waukesha, Wausau and West Bend, the campuses are built and maintained by the local communities and staffed and equipped by The University of Wisconsin. Through this unique partnership, the advantages of higher education are brought closer to all the citizens of the state.

The Center System campuses form one unit of The University of Wisconsin. The other five units include four-year degree-granting campuses at Green Bay, Madison, Milwaukee and Parkside, and University Extension. The two-year campuses are in every way an integral part of the University. Each offers a complete program of freshman-sophomore studies and a variety of adult education classes. All credits earned are UW credits, and will transfer to colleges and universities throughout the country. The courses offered are comparable to those found on any UW campus, and students and faculty members must meet all-University standards and requirements.

Center System Campuses

At the same time, the campuses are able to apply the UW's traditionally high standard of quality to a small college setting. Many small classes allow for extensive student participation and discussion, and students are able to work closely with faculty members. The size of the campuses makes inter-disciplinary cooperation natural for both students and faculty.

In this kind of atmosphere, a spirit of innovation has grown, and both inside and outside the classroom, faculty and students experiment with new and different approaches to education programs. Electronic teaching equipment, seminars, team teaching and fieldwork are only a few of the innovative practices utilized by the Center System campuses to complement the traditional classroom approach.

This same spirit carries over outside the classroom. Students have numerous opportunities to pursue special interests, and a wide range of clubs and organizations provide informal learning experience. Concerts, lectures, art shows and numerous other cultural and educational offerings also are made available to students. To round out the activities, a variety of intramural athletic programs, as well as league competition in the Wisconsin Collegiate Conference, is offered.

Along with these benefits, students find that the transition

from high school to college is eased at Center System campuses. Students have the chance to adjust to the greater demands of college work, but in a familiar setting. In addition, those students who are able to live at home have the advantage of lower costs of room and board.

Campus and Community

The convenient location of a Center System campus is an advantage to the entire community for each campus plays an important role as a resource center for its surrounding area. Special classes and cultural programs often attract local residents. Frequently, faculty research is directed toward the community, providing a practical assist in problem solving.

Interaction between campus and community provides a stimulating and rewarding experience for both. In many ways, these campuses are a large step towards the fulfillment of The Wisconsin Idea, a philosophy of the University for more than 100 years.

History

The Wisconsin Idea simply expresses the University's commitment to make the boundaries of the campus extend to the boundaries of the state, bringing a relevant education within the reach of all. Initially, this took the form of correspondence courses, but when a coordinated program of freshman-sophomore courses was offered in Milwaukee in 1923, the Center System was born.

Since that time, the number of campuses has fluctuated with the varying needs of the state. The two-year campuses were more or less temporary until 1958, when the legislature designated eight permanent campuses and passed legislation that made the present community-university cooperation possible. The number of campuses has grown steadily since that time. In 1968, six campuses separated from the Center System to form the bases for the new four-year degree-granting campuses of Green Bay and Parkside. The Baraboo and West Bend two-year campuses also were opened in 1968, to make the Center System's present total of seven campuses.

Operating under Chancellor L. H. Adolfson, each campus has its own dean and administrative staff. Central administrative offices located in Madison coordinate system-wide activities and policies and provide additional specialized services. The chancellor is directly responsible to the president of the University and then to the UW Board of Regents.

Baraboo-Sauk County Campus

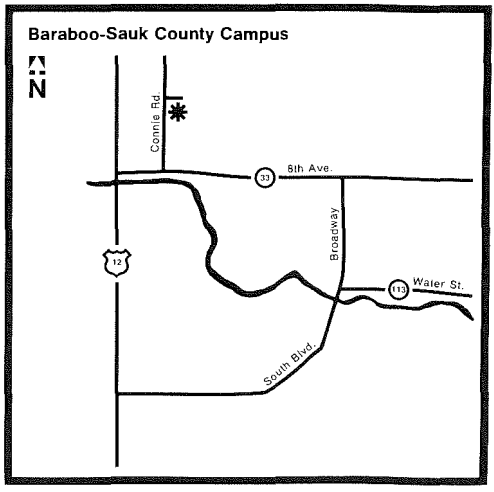
Boasting some of the most modern electronic teaching equipment in the state, the Baraboo-Sauk County Campus has been charged with developing innovative approaches to teaching and learning.

Three buildings, located on a 64-acre site overlooking the beautiful Baraboo bluffs, house a wide variety of instructional facilities. In the classroom-administration building, a large lecture hall and modern laboratories complement the regular classrooms. The student center includes the bookstore, art galleries and a 272-seat theater. In the learning resources center, a well-equipped library and special electronic teaching materials such as closed circuit television, a student response system and a wide selection of portable equipment provide many opportunities for student advancement.

An outstanding fine arts program brings performing artists from throughout the country to the Baraboo campus, while student government, the student newspaper, a dramatic group and other special interest groups provide outlets for student creativity. Monthly art exhibits in the campus galleries feature professional as well as student artists.

Many campus-community programs are also developing with the most recent examples including a tutoring program for area elementary school students and campus beautification projects.

For more information write or call the Director of Student Affairs, Baraboo-Sauk County Campus, 1006 Connie Road, Baraboo 53913, (608) 356-8351.


Baraboo-Sauk County Campus
N
Connie Rd
8th Ave.
33
Broadway
12
113
Water St.
South Blvd.

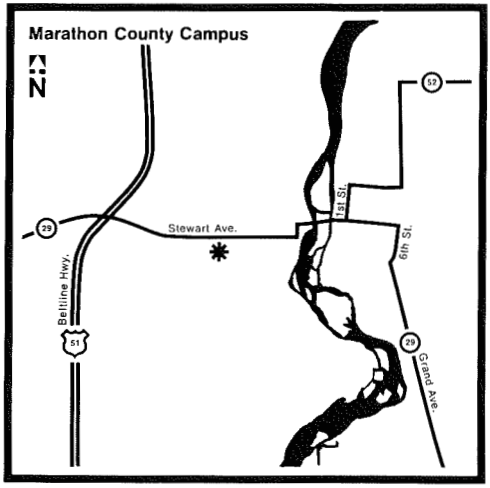
Marathon County Campus

Established in 1947, the Marathon County Campus is the oldest in the Center System. Its classroom-office facility built in 1960 marked the first such county construction in the state. In 1968 a major expansion program added a new science hall, a planetarium, an office-student union wing, a fieldhouse with Olympic-size swimming pool and a coed dormitory. An old brewery converted into an art studio completes the Wausau complex.

Courses as diverse as astronomy and limnology are included among the offerings of 33 academic departments. A number of courses are offered in the evening especially for adult students, or for the scheduling convenience of regularly enrolled students. The Wausau campus also houses the Superior Students Guidance Laboratory which provides higher educational resources for outstanding high school students.

Students at the Marathon County Campus enjoy extensive out-of-classroom activities. Participation in student government, publications, drama and music groups, and in the athletic program which includes six intercollegiate and 11 intramural sports, is encouraged. Student development is a special concern here, and an innovative tutoring program, open to all students, is one of the recent additions in this area. Special programs in community services and aid for disadvantaged students are also being developed.

For more information about the Marathon County Campus, write or call the Director of Student Affairs, Marathon County Campus, 518 South 7th Avenue, Wausau 54401, (715) 845-9602.


Marathon County Campus
N
52
29
Stewart Ave.
Beltline Hwy.
51
41st St.
6th St.
29
Grand Ave

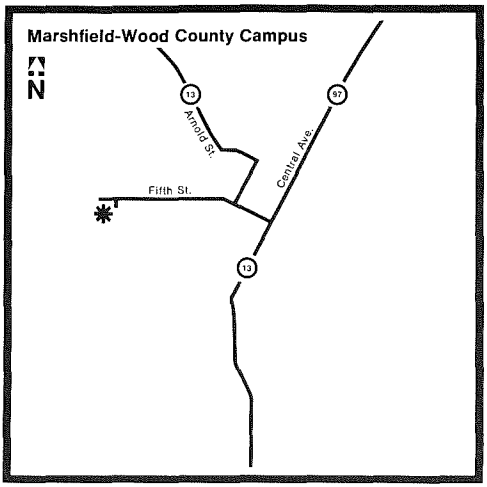
Marshfield-Wood County Campus

For students in the Marshfield area, the Marshfield-Wood County Campus provides an excellent opportunity to begin a University of Wisconsin education. Five buildings, two recently completed, are located on the 68-acre campus. They house office, classroom and laboratory space, a greenhouse and animal house, a fine arts and lecture hall, the library-learning resource center, a student union with cafeteria and a physical education building. Outdoor recreational facilities include tennis courts, a golf fairway and green, and soccer, football and baseball fields.

In addition to the regular liberal arts and preprofessional programs, the Marshfield campus also offers special study in agriculture and nursing. The basic freshman-sophomore courses required for a major in UW-Madison's College of Agricultural and Life Sciences are offered. In the nursing program, sponsored in conjunction with Marshfield's St. Joseph Hospital, campus courses supplement the first year of training. Additional interest fields are served by the wide variety of programs the campus offers in cooperation with University Extension.

Reflecting the close ties of each Center System campus and its community, Marshfield students and faculty members participate in a number of special programs. Among these are the Campus-Community Players and the Central Symphony Orchestra, both of which spotlight campus and community talent in annual performances.

For more information write or call the Director of Student Affairs, Marshfield-Wood County Campus, 2000 West 5th Street, Marshfield 54449, (715) 387-1147.


Marshfield-Wood County Campus
N
13
97
Arnold St.
Central Ave.
Fifth St.
13

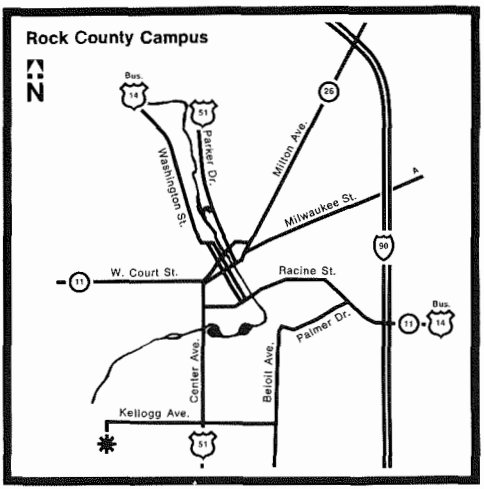
Rock County Campus

For many students in the south central part of the state, The University of Wisconsin is located just a few miles from Janesville—at the Rock County Campus. An administration and student union building, and an instructional areas building which includes an outstanding library and greenhouse are located on a 50-acre site overlooking the Rock River. Tennis courts and a softball field were recently added to provide outdoor recreational facilities, and planning is underway to furnish additional space for the rapidly growing enrollment.

The Center System's goal of meeting many academic needs is reflected in the Rock County curriculum which last year expanded to 100 course offerings, many of which are scheduled in late afternoon and evening to benefit adult and working students. Another aspect of the concern for educational opportunity is the establishment by the campus of a special program of tutorial and financial aid for disadvantaged students.

Rock County Campus students also enjoy a varied and extensive activity program. A lively fine arts and lecture series provides campus audiences with a full schedule of professional and collegiate performances, while a literary society and a student newspaper serve other creative bents. The Madrigal Singers, who annually delight the campus with holiday entertainment in Elizabethan style, and a ski club are among the popular groups on campus.

For more information about the Rock County Campus, write or call the Director of Student Affairs, Rock County Campus, Kellogg Avenue, Janesville 53545, (608) 754-2841.




THE MATRIX

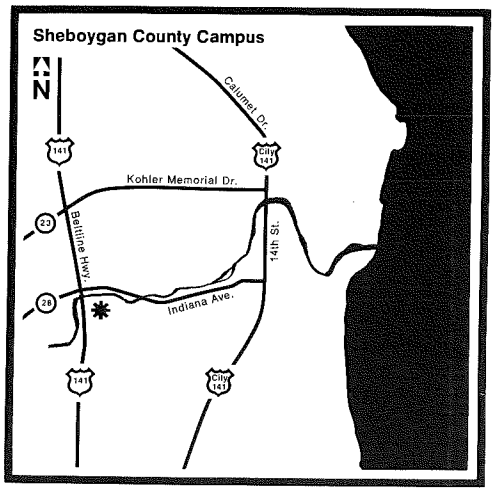
Sheboygan County Campus

Completion of a $1.6 million building and remodeling project in 1970 marked another step forward for the Sheboygan County Campus. New buildings added at the beautiful 75-acre hilltop campus include a library-learning resource center, fine arts building, gymnasium and power plant. Another feature of the expanded campus is a UNIVAC 9200 computer which is connected by telephone line with the UNIVAC 1108 computer in Madison. The new and remodeled facilities particularly lend themselves to research in an area of acute importance to Sheboygan County—environmental contamination and pollution.

In keeping with the Center System goal to make higher education more responsive to community needs, the campus has developed programs to provide tutorial services to elementary schools in Sheboygan and to aid disadvantaged students. Much of the planning is carried out by committees made up of both students and faculty.

Students also participate in a number of informal activities on campus. The Campus Band and Choir, Chamber Singers, UWS Players and Delta Psi Omega (a drama fraternity), give many students "on stage" experience. Student government, the Film Classics Committee, Camera Club and the Centerpiece, the student newspaper, are other popular activities on the Sheboygan County Campus.

For more information write or call the Director of Student Affairs, Sheboygan County Campus, P.O. Box 719, Lower Falls Road, Sheboygan 53081, (414) 458-5566.


Sheboygan County Campus
N
Calumet Dr.
141
City 141
Kohler Memorial Dr.
23
Beltline Hwy.
14th St.
28
Indiana Ave.
141
City 141

Washington County Campus

The Washington County Campus, located in West Bend, seven miles south of the Kettle Moraine State Forest, is set in the midst of 87 wooded acres bordering on three lakes. The campus serves as an ideal outdoor laboratory and an excellent facility for recreational and physical education programs.

Students who commute from more than 30 surrounding communities find an imaginative array of 80 courses in 24 fields, plus special scholarship opportunities and programs offered in conjunction with University Extension.

The West Bend campus also is the only UW campus outside Madison and Milwaukee to offer a program of study leading to a graduate degree. Students can attend courses on the West Bend campus to complete requirements for a master's degree in school administration offered at Milwaukee.

Campus resources have also been directed toward the fine arts. In addition to sponsoring performances by visiting artists, the campus has worked closely with area residents to establish the Moraine Area Arts Council, area youth and adult symphony orchestras, a choral group, community theater groups and a cooperative art program with local galleries.

Facilities at the Washington County Campus include a modern learning resources center, a classroom-administration building and the student center, with a 296-seat theater.

For more information write or call the Director of Student Affairs, Washington County Campus, 400 University Drive, West Bend 53095, (414) 338-1161.


Washington County Campus
N
45
Barton
144
Ave.
N. Main St.
33
Washington St.
33
Chestnut St.
S. Main St.
Decorah Rd.
16th St.
45

Waukesha County Campus

The Waukesha County Campus, located in the state's most rapidly developing metropolitan area, has the largest enrollment in the Center System. A joint project of Waukesha County and The University of Wisconsin, the 86-acre hilltop campus includes Northview Hall, a three-story classroom-library-laboratory building; the Fieldhouse, a completely equipped physical education facility; and Southview Hall, the new classroom-office building opened early in 1969. The recent gift of 92 acres of Waukesha County farmland, called the Sherman Natural Area, provides the campus with an extensive outdoor laboratory for environmental study.

Waukesha County Campus students also benefit from close campus-community ties. Cooperative programs in such areas as engineering and journalism have been developed with local firms, and interested citizens working through the Friends and Alumni of the UWW have provided scholarship aid for local students; the group also led a recent drive to establish a large permanent art collection on campus.

A full-scale campus activities schedule provides something for every interest. Faculty-student groups coordinate student life and activities, publications, learning resources and special educational opportunities. Other areas of involvement for Waukesha students are the Center System forensic tournaments, student government leadership conferences and journalism, music and drama workshops.

For more information write or call the Director of Student Affairs, Waukesha County Campus, 1500 University Drive, Waukesha 53186, (414) 542-8825.

Public Higher Education in Wisconsin

The Center System, with the five other University of Wisconsin administrative units, plays an important part in the larger structure of public higher education within the state.

The many public institutions offering post-high school education opportunities to Wisconsin residents divide into three basic systems: The University of Wisconsin (UW), the Wisconsin State Universities (WSU) and the division of Vocational, Technical, and Adult Education (VTA).

A fourth historic division, the County Teachers Colleges which offer two-year teacher training, is slowly being phased out as the four-year degree becomes prerequisite to teacher certification.

Originally, each of these systems was assigned a clearly defined role in educational service to the state. "Teaching, research and public service" was the responsibility of the UW, teacher training was delegated to WSU, and VTA was created as a resource for Wisconsin residents not served by other segments of higher education.

Over the years, in response to the growing needs and numbers of people to be educated, these institutions have expanded and diversified their programs and services.

The UW System

From a single "preparatory department" in 1849, The University of Wisconsin has grown into two campuses at Milwaukee and Madison, both offering extensive graduate school programs; new four-year complexes centered at Green Bay and Parkside which incorporate the freshman-sophomore campuses at Marinette, Manitowoc, Menasha, Racine and Kenosha; the Center System and University Extension.

The WSU System

At WSU, which began as a series of normal schools that later became State Teachers Colleges, the expansion of curricula and programs brought university status in 1964. The campuses at Eau Claire, La Crosse, Stevens Point, Whitewater, Oshkosh, Platteville, Menomonie (Stout State), Superior and River Falls continue to emphasize four-year teacher training and masters' programs in education, but they are also fulfilling other needs in state education. All offer credit work toward professional and four-year liberal arts degrees, and masters' programs in fields other than education are also being developed.

Two-year WSU branch campuses similar to those of the UW have been established at Fond du Lac, Richland Center, Rice Lake and Medford.

The VTA System

Of the 35 schools in the VTA system, 13 are technical institutes offering associate degrees as well as one and two-year diploma programs. Comprehensive institutions with both vocational-technical programs and liberal arts college transfer work are located in Madison and Milwaukee. A pilot dual track institution opened in the fall of 1970 at Rhinelander. Other VTA schools offer varying vocational, technical and adult programs.

All three systems are subject to the final authority of the State Legislature. The Coordinating Council for Higher Education, a board of citizens and systems representatives, refines and coordinates plans for budgets, facilities and programs initiated by the individual systems.

Each system operates under its own administrative organization which reports to the Governor and Legislature. A ten-member Board of Regents serves as a policy-making body of The University of Wisconsin. There is a system-wide president, Dr. Fred Harvey Harrington, with the four-year campuses, the Center System and University Extension each governed by a chancellor. A dean heads each of the Center campuses.

Wisconsin State Universities operate under a system-wide director, Eugene R. McPhee, and individual campus presidents, who are responsible to a 13-member Board of Regents. Branch campuses are administratively tied to the nearest four-year WSU institution.

VTA programs, under the jurisdiction of the Wisconsin Board of Vocational, Technical and Adult Education, are administered by State Director Clarence L. Greiber.

The development of new collegiate majors and VTA programs now makes more than 500 program options available to students enrolled in state institutions. Inter-system cooperation is growing on many levels—such as facility and staff sharing — to further enhance the programs of these institutions.

In addition to the three public higher education systems, Wisconsin is served by a number of private and proprietary schools ranging from universities, colleges and seminaries to business, professional and technical schools.

YOUR ADMISSION
TO A CENTER SYSTEM CAMPUS

The University of Wisconsin has a uniform admission policy for all campuses. One application blank is used throughout the University, and all students are asked to meet the same requirements whether they plan to start their college careers at one of the Center System campuses or at one of the University's four-year campuses. In accordance with University policy, the Center System considers for admission all students who seem to have a reasonable chance of meeting the academic requirements for graduation.

You may apply for admission after October 1 of your senior year in high school. Admission will be based on your freshman, sophomore and junior year record and the subjects you are taking in your senior year, but high school graduation is normally necessary before beginning University study. Your high school work must include 16 units* distributed as follows:

English		3 units
Algebra		1 unit
Geometry		1 unit

Two of the following:

A foreign language	2 units	
History and social studies	2 units	4 units
Natural science	2 units	

Academic electives in English, speech, foreign language, history, social studies, natural science and mathematics (algebra, geometry, trigonometry, analytic geometry and calculus).

Fractional units are accepted, except in foreign language	3 units
Other electives (fractional units are accepted)	4 units
	16 units

*A unit is considered to be one year of high school work.

All applicants for admission as a freshman are required to take one of two national tests, either the American College Test (ACT) or the Scholastic Aptitude Test (SAT) given by the College Entrance Examination Board.

Recommendations submitted by your high school on the application form, along with your high school grades and test scores, are considered in determining admission. Ordinarily, a student who lives in Wisconsin and meets the academic subject requirements as listed above and ranks in the upper half of his class will be admitted. If you live in another state, you must rank in the upper 40% of high

school graduates as measured by high school records and scores on the ACT or SAT test.

Admission Steps

1. Complete an application for admission. Blanks may be secured from your high school or from the admissions office of any University of Wisconsin campus. Please complete the application carefully, and follow the directions given on the application form.

2. Take one of the two admissions tests — ACT or SAT — and at the same time you take the test, or later, ask that the scores be sent to the University campus you plan to attend.

When to Apply

You may apply in October of your senior year in high school for the fall, spring or summer term. Your application must be submitted no later than August 1 for the fall term, December 15 for the spring term and May 1 for the summer term.

Application Fees

Students who do not live in the state of Wisconsin must submit a $10 non-refundable fee with the application for admission. There is no application fee for Wisconsin residents.

Transfer Students

If you have attended any type of school after graduation from high school, you will complete the same application blank as new freshmen and follow the same application dates. In addition to your high school record, you must submit an official transcript from all schools you attended after high school graduation. This applies to nursing schools, business schools, vocational schools, etc. as well as other colleges and universities. Failure to submit such records may be cause for dismissal from the University. You are asked to submit such records whether or not you completed any work, regardless of your desire to claim credit for the courses. The only exception is made for training schools you may have attended as part of military service.

If you have completed 15 or more credits in another college or university, you will not need to submit the ACT or SAT scores. Residents of Wisconsin must have at least a C average on all college work; residents of other states must have earned grades averaging at least half B and half C on all credits carried.

Adult Education

The Center System provides an opportunity for college education to many adult students who do not qualify for admission according to the preceding paragraphs. You may wish to take one course or you may wish to work toward a degree. Adults who do not wish to work for a degree from The University of Wisconsin may register as "Special" students and will complete an application blank other than the regular application. If you wish to work toward a degree but do not present the specific requirements for admission, you may be admitted as a "Conditional Matriculant." Since each person has a different educational background and different needs, please discuss your situation with an admissions adviser at the campus you plan to attend, or write to the Director of Admissions, UW Center System, 602 State Street, Madison, Wisconsin 53706.

Part-Time Students

The University of Wisconsin Center System welcomes and encourages attendance on a part-time basis. Each campus schedules classes in the late afternoon and evening in addition to the classes given during the conventional school day. As a part-time student, you may enroll for one or more courses to suit your needs, either in the day or evening.

Attendance on a part-time basis does not affect your application for admission. If you have any plans for working toward a bachelor's degree, you should complete the regular application blank. Students who are definitely not interested in a degree may complete a "Special Student" application form which is available from the student affairs office at any Center System campus.

Opportunities for Superior High School Students

Programs are provided in the Center System which will let you start college before high school graduation (see 1.) or will challenge you while still in high school (see 2.).

1. You may enroll at a campus without graduating from high school. Selection for early admission is on the basis of scholastic ability, social maturity, educational plans and the appropriateness of this plan for you. Scholastic ability is measured by your high school record and the ACT or SAT scores which should be in the top one-tenth of high school class scores. Major consideration is given to the recommendations of your high school; you should be completing at least the 10th grade and preferably the 11th grade.

2. High school seniors with superior records (ranking in upper 10% of class) and test scores may be permitted to enroll in one or two subjects in the University while com-

pleting high school. If you are interested in this opportunity, please consult with your high school principal or guidance counselor first. You must have their recommendation to be sure this program fits in with your high school classes. After you, your high school counselor and the dean of the campus agree that this is a wise choice for you, you will be asked to complete the proper application form.

Advanced Placement

The Center System awards advanced placement and University credit in specific subjects for high school students who have earned satisfactory scores on the appropriate College Entrance Examination Board's achievement tests.

Physical Examinations

You are required to have a physical examination, by your own physician, if you are a new, full-time student or if you are re-entering the University after having been out of school two or more years. The results of the physical examination are kept on file in the campus student affairs office and are confidential material. The form which your doctor must complete will be mailed to you after your Permit to Register has been authorized. **The results of the physical examination will have no effect on your eligibility to enter the University.**

Housing

Because most Center System students live at home while going to college, most of the campuses do not provide dormitory facilities. However, the Marathon County Campus (Wausau) has a dormitory available to students. Inquiries for housing at the Marathon County Campus or other campuses should be addressed to the campus dean or the student affairs director, who will have information available on housing in the community.

EXPENSES AND FINANCIAL AIDS

Expenses
Fees

If you are a Wisconsin resident for tuition purposes, you will pay $244 per semester for a program of 12 or more credits. As a nonresident student you will pay $889 per semester.

If you would like to take 11 credits or less during a semester, you may enroll as a part-time student. Wisconsin residents are charged $20.50 per credit; non-residents are charged $74.50 per credit.

All students must make a $50 partial payment upon final pre-registration. The fee is not refundable; it will be applied to the fees and tuition.

These fees and tuition were in effect July 1, 1970; they are subject to change without notice. To obtain a final tuition and fee schedule you may contact the director of student affairs at any of the Center System campuses or you may write to the Director of Admissions, University Center System, 602 State Street, Madison, Wisconsin 53706.

Late Registration
Late Payment

An additional fee of $10 is charged for students who complete registration after classes begin. You are officially registered when your tuition and fees are paid in full. All fees should be paid on or before Friday of the first week of instruction in each semester.

If you pay your fees after the first week of instruction, you will be assessed a late payment fee according to the following schedule: during the second week of classes, $25; third and fourth weeks, $50. Students who do not complete payment of fees by the end of the fourth week of classes will be dropped.

A late registration fee is not applicable to part-time students. For this purpose, a part-time student is one who carries seven or less credits. Part-time students who do not pay their fees before the third week of instruction are subject to the following penalties: payment during the third week of classes, $25; fourth week, $50. Part-time students who do not complete payment of fees by the end of the fourth week of classes will be dropped.

Refunds

If you decide to withdraw from a Center System campus your fees and tuition will be refunded according to the following schedule: for withdrawal before or during the first and second weeks of classes, 80 percent; third and fourth weeks, 60 percent. No refunds will be made after completion of the fourth week of classes. The late registration or late payment charge is not refundable. If you change from a full-time to a part-time program, the refund schedule is the same as listed above for complete withdrawal. The date on which you submit notice of your with-

drawal to the campus student affairs office is the official date used for refunding money.

Books and Materials You can purchase textbooks and other materials from local bookstores at an average cost of $50-$60 a semester.

Insurance As a Center System student (carrying eight credits or more), you are eligible for a Student Group Hospital-Medical-Accident Program at your own expense. Enrollment in this plan may help eliminate the financial worries associated with the cost of modern day hospital and medical care. Information concerning the plan is mailed to each Center System student. If you wish to enroll in this program and did not receive the information, ask for informational brochures and an enrollment form at your campus student affairs office.

Students who participate in athletics or inter-campus activities must be covered by health and accident insurance. If you feel that you do not need this insurance plan because you are covered by another policy you carry, please check your present policy to make sure it provides coverage for accidents or illness caused by participation in athletics of any kind. It is also possible that a student may become involved in activities which include travel to another campus of the University; this policy will provide coverage for accident or illness caused by such activity.

Residency Exemption from the nonresident (out-of-state student) tuition is governed by Section 36.16, Wisconsin Statutes of 1963. The administration of this statute is handled by residence examiners in the Office of the Registrar, University Center System, 602 State Street, Madison, Wisconsin 53706. Since the regulations governing residency for tuition purposes differ in many respects from residency for other purposes, students whose cases may be questionable are advised to consult the statute or write a residence examiner for advice about their status. (In determining eligibility for exemption from the out-of-state classification, the first day of instruction in a semester is considered the beginning of that semester.) The registrar hears all appeals from out-of-state classification.

Financial Aids

There are many and varied financial aids available to qualified students. You are eligible to apply for all undergraduate university financial aids programs. In addition, some campuses also have special programs designed to aid students attending their campuses. The student financial aid adviser in your student affairs office will be able to give you information about financial aid and how you may obtain assistance.

Typical budget for an academic year

STUDENTS LIVING AWAY FROM HOME:	
Fees	$488
Books and Supplies	125
Room and Board	700
Miscellaneous and Travel	450
Total	$1763

STUDENTS LIVING AT HOME:	
Fees	$488
Books and Supplies	125
Board	400
Miscellaneous and Travel	500
Total	$1513

(Nonresident students add $1290 for out-of-state tuition to the budget.)

Subject to change without notice.

Note: The "Living at Home" budget above shows the actual costs of supporting a student in college for an academic year and includes the cost of food while living at home, miscellaneous expenses and travel. Commuters and their parents should keep in mind that they are already paying these three items. The only additional costs are those for tuition and books. Most average commuter families will find that they will be paying an additional $613 ($488 fees, $125 books). Awards, however, are based upon the total cost of supporting a student. Assistance given beyond the tuition and book costs should go to meet board and miscellaneous expenses. (Travel expenses may be higher than they were while the student was in high school. This will vary depending on whether the student attends school in his home town or commutes from a more distant residence.)

To help the University judge your need and award aid fairly, your parents are asked to complete a confidential statement of their income, assets and liabilities. The University can then determine the difference between what your education will cost and what you and your parents can provide.

Also considered in determining a reasonable parental contribution are salaries of both parents, additional income, net worth of business or farm, real estate holdings, savings, investments, special family circumstances such as additional costs of two working parents, number of dependents, student's earnings and assets, extraordinary expenses (such as business or medical) and certain types of debts. Circumstances such as job expenses or debts, and support of elderly relatives or other children in college, are also taken into account.

Students are also expected to contribute to these educational expenses through summer savings. Incoming freshman girls are expected to provide $300, incoming freshman boys, $400; an additional $100 is expected from the students for the sophomore year, i.e. sophomore girl, $400; sophomore boy, $500.

Students are expected to commit a substantial portion of their own resources toward educational expenses before they request assistance.

Rarely can a student meet all his expenses through one type of financial aid. Assistance generally must come from a combination of resources. A student may be selected to receive a loan and grant, a scholarship and a loan, a loan and a job or other combinations. He need not accept the whole financial aid package to receive part of it.

How to Apply

1. Only one form is required. When your application is received, you will be considered for all the kinds of financial aid for which you are eligible. You may file an application before receiving a Permit to Register at the University, but you must have a permit before receiving an award.

Application packets and instructions for filing them may be obtained from high school guidance counselors or principals in Wisconsin or from any of the University campuses.

2. A Parents' Confidential Statement must be completed by parents of applicants for financial aid. This form is included in the application packet referred to above.

Deadlines are as follows:
1. Scholarship grants and/or combination of assistance: high school seniors—March 1, transfer and continuing students—February 15. High school seniors will be notified between April 15 and May 15 of the action taken on their applications. Transfer and continuing students will be notified between May 15 and June 15.

2. National Defense student loans, Work-Study jobs and State of Wisconsin loans: All applications filed before April 15 are given first priority but applications will be accepted throughout the year as long as funds are available.

Students who file late applications, however, are taking a risk, for the University cannot guarantee loan and job assistance to those applying after the priority date.

3. University short term loans: Applications are accepted at any time while you are enrolled.

Types of Financial Aid

Scholarships

Nearly all scholarships are awarded in competition. The faculty Committee on Student Financial Aids explains the criteria used in selection of scholarship recipients: "Scholarships awarded by the Committee on Student Financial Aids to students entering or continuing at a Center System campus will be awarded on the basis of scholarship and worth. The amount of the stipend will be determined by need. These principles should always be followed unless the stipulation of the bequest indicates otherwise."

Awards to prospective freshmen will be made on the basis of six semesters of high school work. You may, however, submit seventh semester grades, if they are appreciably better, and have them considered in your scholarship rating. Scholarship awards are provisional, contingent upon a satisfactory record in the senior year of high school.

Awards to continuing or transfer students of the University are made on the basis of the student's cumulative college grade-point average.

The single financial aid application, with the appropriate parents' financial data, is all that is needed to apply for any scholarship assistance at The University of Wisconsin.

Educational Opportunity Grants

The Higher Education Act of 1965 created a new federal student assistance program to further help students of "exceptional financial need." In general, this means students whose parents are able to provide only a small portion of the financing of their child's education.

Further, the Act specified that the institution awarding the grant must also offer the student an equal amount of assistance from its own resources. The matching award could be in the form of a job, a loan or a scholarship. **The student must accept the matching award conditions when he accepts the grant.** The amount of the grant may equal half of the student's need up to a maximum of $1,000. This grant is renewable each year up to four years as long as the student continues to make satisfactory progress and his financial situation does not change. The grant is awarded only on a "package" basis, never singly.

Loans

In some cases it may be advisable to borrow to finance an education, if you borrow only what you need to maintain a minimum living standard. Use caution in borrowing. Generally, you should not rely primarily on loans to finance your education.

Students are usually advised not to borrow more than half of what they need to meet their expenses, so that they will not find themselves facing a staggering debt upon graduation. Taking part-time work, or even dropping out of school for a year or so to work full-time, is sometimes advisable.

Loans at Wisconsin are not available for non-educational expenses, nor are they generally available for the repayment of previously incurred debt.

National Defense Student Loan Program. Under Title II of the National Defense Education Act of 1958, students in good standing and with financial need may apply for National Defense Student Loan funds. **Need is the primary consideration for granting such a loan.**

Depending on need, you may borrow up to $1,000 during any one fiscal year (July 1-June 30) with maximum disburse-

ments of, generally, $500 per semester. Accumulated loans may not exceed $5,000.

Borrowers may have up to ten years and nine months, after they cease to be at least a half-time student, to repay their loans. Repayments at 3% simple interest per annum begin nine months after a student receives a degree or permanently leaves the institution. The University bills on a quarterly basis, and there is a minimum yearly repayment of $180.00. Thus a student with a small accumulated maximum (less than $1,800) by the time he leaves school will have nearly ten years in which to repay his loans.

Borrowers who become full-time teachers in public or private non-profit elementary and secondary schools or institutions of higher education can have portions of their loans cancelled at the rate of 10% per year for each complete year of academic service. The maximum amount which may be cancelled for teaching service is 50% of the total loan, including interest, unpaid as of the first day of teaching. Cancellation of 15% per year of the entire loan may be obtained for teaching service in schools for the handicapped or in areas designated by the appropriate state agency as having a high concentration of low income families. Deferments of up to three years on all interest and repayments may be obtained while on active duty in the Armed Forces, Peace Corps or VISTA.

To apply for a loan under this program you must:

1. Be a citizen or permanent resident of the United States.

2. Be enrolled or admitted as at least a half-time student. A half-time student is one who is carrying at least eight credits per semester.

3. Meet the following grade requirements: entering freshman—admitted to the University; undergraduate—minimum 2.0 cumulative grade-point average for last completed semester.

Wisconsin Student Loan Program. Residents of Wisconsin may borrow from the Wisconsin Student Loan Program. These loans are from funds established by the state and are administered jointly by the institution the student is attending and the Higher Educational Aids Board.

You may borrow from the state loan program if:

1. You are a citizen or permanent resident of the United States and are a Wisconsin resident attending an accredited post-high school educational institution;

2. You are an undergraduate, graduate or professional

school student carrying one-half or more of a normal academic load;

3. You have demonstrated academic ability and are likely to go on to graduation. Undergraduates must maintain a 2.0 cumulative grade-point average and 2.0 in the last completed semester. Entering freshmen who have been admitted to the University are eligible.

4. You can demonstrate financial need.

You may borrow up to $1,000 per fiscal year as an undergraduate, with a maximum accumulation of $5,000 in loans. There is no interest charged while you are enrolled. Nine months after you cease to be at least a half-time student, repayment and interest commences at 7% simple interest per annum. You have up to ten years from this date to repay the loan, depending upon the total amount that is outstanding. The state bills on a monthly basis, and there is a minimum yearly repayment of $360. There are no cancellation benefits in this loan program, but deferments of up to three years may be obtained for active duty service with the Armed Forces, the Peace Corps or VISTA. Parents of students under age 21 must co-sign the promissory note.

Wisconsin Guaranteed Student Loan Program. The Wisconsin Guaranteed Student Loan Program, signed into law on August 8, 1967, is now in operation throughout the state of Wisconsin. Loans under this program come from participating private lending institutions (i.e. banks, savings and loan associations, credit unions, etc.) The program is administered jointly by the private lending institutions and the Wisconsin Higher Education Corporation, a subsidiary of the Higher Educational Aids Board.

To be eligible for a Guaranteed Student Loan, an applicant must:

1. Be a citizen or permanent resident of the United States and a Wisconsin resident as defined by Section 36.16 of the Wisconsin Statutes (i.e. the same as the University requirements for residency).

2. Be enrolled or accepted for enrollment at an accredited post-high school educational institution in the United States.

3. Be at least a half-time student, i.e. undergraduate—eight credits per semester, four credits per summer session.

4. Have demonstrated academic ability and be likely to go on to graduation. Generally this means maintaining a 2.0 cumulative grade-point average and earning a 2.0 in the last semester completed.

To apply for assistance under this program, the student obtains the application form from the financial aids office of the school which he is attending, a commercial lender (i.e. bank, savings and loan association, credit union, etc.) in his home town, or from the Wisconsin Higher Education Corporation, 115 W. Wilson Street, Madison, Wisconsin 53703.

Note: Do not confuse the Guaranteed Loan Program with the Wisconsin Loan Program. Though they both have federal interest subsidy benefits, they are completely separate and distinct programs. The Wisconsin Loan is based upon a uniform need analysis and is awarded directly by the state upon recommendation and specification of amount by the educational institution.

Law Enforcement Education Program. Loans and grants are available for law enforcement personnel who are enrolled in an undergraduate program leading to a degree in an area related to law enforcement.

Loans, up to a maximum of $1,800 per academic year, are available for full-time students and are disbursed on the basis of need. The loans carry no interest while the borrower is in school. Six months after graduation or after the time the borrower ceases to be a full-time student, repayment and interest at 3% simple interest per annum commences. The loan may be cancelled at the rate of 25% per year, up to the total of 100%, for four years of service as a full-time officer or employee of a publicly funded law enforcement agency.

Law enforcement grants for tuition and fees (up to $300 per semester) are available to both full-time and part-time students who are enrolled in programs leading to a degree in an area related to law enforcement. A grant applicant must seek a written agreement with his administrative superior which indicates his intent to remain for two years in the service of the law enforcement agency which employs him. Failure to fulfill this agreement obligates the recipient to repay the full amount of funds received as grants.

University Short-Term Student Loans. These loans are made from funds established by gifts to the University. They are generally granted in amounts of up to $500 per academic year. With the approval of a special loan committee, they can be granted for more than $500. Repayment usually is expected by the beginning of the next academic year, and summer earnings are pledged for that purpose. A repayment schedule is agreed upon at the time the loan is granted. Interest rates vary, but the average is 2 to 3% a year. Parents of students under age 21 must co-sign a promissory note.

Student Employment

All University Center System students are eligible to utilize the employment services of the Office of Student Financial Aids. Students may apply any time during the year; however, no student can be referred to a job opening until he arrives on the campus he plans to attend.

Hundreds of students at the campuses help finance their education through jobs both on and off campus. These jobs are offered through either the campus' own employment service or under the Work-Study program provided through federal legislation. This program has more than doubled the opportunity for students to work at the campuses during the regular school year and the summer. Eligibility for the federal Work-Study program is based on the student's financial need. However, financial need is not a prerequisite for employment that is not under the Work-Study program. University campuses offer any student the

opportunity to work for a portion of the amount he will need to finance his college education, instead of having to rely totally on borrowing the necessary funds. Students are usually able to earn from $600-800 during the academic year (34 weeks).

Most proficient students can carry a full load while holding a part-time job (12 to 15 hours a week) without undue strain. Many students find that they earn better grades while working part-time because they budget their time more wisely.

While previous work experience is important, the possession of needed skills is even more important to the job-seeking student. Students who have acquired specific skills, such as typing, shorthand, bookkeeping, carpentry, etc. will find it much easier to secure part-time positions. Rates of pay for student jobs on and off campus generally range from $1.60 to $2.00 per hour.

The chart below shows how much you might earn (before taxes and other deductions) during the 34-week school year:

Work hours per week	$1.60 per hour	$1.75 per hour
10	544	595
12	653	714
15	816	892

Veterans Benefits

Loans for Wisconsin veterans of World War II and the Korean and Vietnam conflicts are available from the Department of Veterans Affairs, Room 700, State Office Building, 1 West Wilson, Madison, Wisconsin 53702 .

Information about the Cold War GI Bill, a program of assistance for veterans, may be obtained from the Veterans Administration, Regional Office, 342 North Water Street, Milwaukee, Wisconsin 53202.

The War Orphans Educational Assistance Act has been amended to provide educational benefits for children of permanently disabled veterans as well as children of deceased veterans. The veterans must have died or have become disabled as a result of service in the Armed Forces during the Spanish-American War, World War I, or since September 15, 1940. If you think you may be eligible for such financial assistance, apply to the nearest Veterans Administration office.

Vocational Rehabilitation Services

Vocational rehabilitation services are available to qualified students. Eligibility is based upon mental or physical im-

pairments and with decisions resting with counselors in the various districts throughout the state. Offices are in Eau Claire, Fond du Lac, Green Bay, LaCrosse, Madison, Milwaukee, Oshkosh, Racine, Sheboygan, Superior and Waukesha. Services may include tuition, books, counseling, physical and psycho therapy, physical restoration, artificial prosthesis, transportation, evaluative services and maintenance. Some of these services are based upon the student's ability to pay.

Social Security Benefits

Students whose parents are retired, disabled or deceased may be eligible to receive Social Security benefits if they are unmarried, full-time students under age 23. For complete information on eligibility and benefits, contact the nearest district Social Security office.

Financial Aids Counseling

If you would like to discuss your college finances or if you have any special problems regarding financial aids, you may make an appointment to see the campus financial aids adviser.

ACADEMIC INFORMATION AND REGULATIONS

Your college career becomes a focal point in a continuous process of education; it is the foundation on which you can build a full and satisfying life. Successful achievement in college demands that you concentrate on your academic program. You should be aware of the academic information and regulations included in this chapter. Faculty members, and particularly the advisers in the student affairs office at your campus, will help you interpret course requirements and plan a well-balanced program. Consult them often to find the most your University has to offer you.

Classification

When you receive your Permit to Register, you will notice that a combination of letters and numbers, such as BA 1, has been typed on your permit. You will be asked to use this in completing forms at registration time. The letters represent the course you plan to follow; the numbers are "1" for freshmen, "2" for sophomores. The letter abbreviations are:

AGR—Agricultural Sciences, Life Sciences and Natural Resources
ART—Art Education and Applied Art
BA—General Education in Liberal Arts
CM—Conditional Matriculant
ENGR—Engineering
HEC—Home Economics
MUS—Music
NUR—Nursing
PED—Physical Education
PRB—Pre-Business
PRED—Pre-Education (Elementary, Secondary, and Special)
PRP—Pre-Pharmacy
SPL—Special

If you did not indicate any specific course or major on your application blank, you will be classified as BA 1. You may change this classification on your registration materials if it does not apply to your educational plans.

Credits for Graduation

A credit represents one hour of class work per week for one semester, or its equivalent in other forms of instruction, together with the necessary preparation. Two or sometimes three hours of laboratory work are considered as the equivalent of one hour of class work. If you are in a program requiring 120 credits for graduation, you must average 15 credits a semester to make normal progress toward a degree.

The number of credits required for graduation from a four-year campus of the UW varies from 120 for a B.A.-General Course degree in the College of Letters and Science to 158 in the School of Pharmacy.

"Sixty-credit rule." Since the Center System offers only freshman-sophomore level work, you will probably transfer to a four-year degree granting campus after you have completed your sophomore year. Normally, the last half of the total number of credits required for graduation must be earned after transfer to the college which grants your degree. This regulation is commonly called the "60 credit rule" since 60 credits represent the first half of the minimum number of credits required for graduation from the UW. Any work taken at any college before registration at a Center campus is counted in the first 60 credits. For example, a student might take 14 credits at Madison, 15 at Milwaukee, 3 by correspondence and then register at a Center campus for 30 credits. He would have a total of 62 credits counted as the first half of the work required for a degree and would be expected to take 60 more credits for a degree which requires 120 credits.

Your adviser can explain any exceptions to this regulation. The number of credits which you may earn toward a degree while attending a Center campus is determined by the school which grants your degree.

Sophomore and Junior Standing

To be classified as a sophomore, you must have at least 24 credits and 48 grade points; as a junior, 58 credits and 116 grade points. However, if you plan to transfer to the College of Engineering at the Madison campus, you will need 28 credits and 56 grade points for sophomore standing, 60 credits with a C average in all work attempted for junior standing.

Grading System

Semester grades are reported by letter only. Each letter grade carries a specified number of points per credit; thus a B in a 3-credit subject would yield 9 points. The scale of grades and points follows:

Grade	Points per credit
A (Excellent)	4
B (Good)	3
C (Fair)	2
D (Poor)	1
F (Failure)	0

The general quality of your work is expressed in terms of a grade-point average, which is defined as the total number of grade points earned divided by the total number of credits attempted. The highest possible quotient is 4.0, which represents a grade of A in every subject; the lowest, zero or F.

The lowest degree of satisfactory work is, in general, an average of C: that is, grade points equal to twice the number of credits. "Passing" grades of D (poor) are not good enough to keep you in the University.

University Identification Cards

A University ruling adopted by the Board of Regents on September 19, 1969, requires that any student attending a University of Wisconsin campus must have in his possession a University photo identification card. ID cards are issued to Center System students by the campus student affairs offices as part of registration procedures.

A student's registration is not considered complete until he has obtained an ID card; students not obtaining cards will not be allowed to register for subsequent semesters.

Credit Load

The majority of full-time students carry 15 or 16 credits per semester. The UW Center System defines a full-time student as one carrying 12 or more credits. As a new student you may carry a maximum of 17 credits for a semester and nine credits for a summer session, with one exception—if you are an engineering major, you may begin with a program of 18 credits. In succeeding semesters, engineering majors may take up to 21 credits a semester; other majors up to 19 credits, providing their average for the preceding semester was grade B or better on a minimum of 14 credits.

You are advised that many, if not all, schools and colleges of The University of Wisconsin will not accept toward a degree more than six credits in music participation courses such as band, orchestra, chorus and ensembles, and may not award any credit for courses in physical education.

Students who are working should seriously consider registering for reduced loads. Experience has indicated that a program load of 16 credits can be roughly equated to a full-time job. On this basis, the following table is suggested:

Credits	Employment Hours per Week
15	10
14	13
13	16
12	19
11	22
10	25
9	28
8	31

Most students would be wise to adhere closely to the

work-study load above, especially first semester freshmen.

Concurrent Registration

You may find it necessary in planning your program to take classes at more than one campus of the University. To enroll concurrently, notify the student affairs office at the Center campus well in advance of registration. Your official registration and payment of fees should occur at only one campus, listing all classes taken within The University of Wisconsin. It is your responsibility to sign up for a specific class on each campus attended.

Independent Study (Correspondence Courses)

The University of Wisconsin Extension offers a wide range of courses that may be taken through the mail. You may wish to take one of these courses during any semester that you cannot attend classes. To obtain a catalog listing courses available and their cost, contact the campus in your community or write to Independent Study Department, University Extension, 432 N. Lake Street, Madison, Wisconsin 53706.

If you are enrolled at the campus and have paid the full semester fee, you may take one correspondence course for credit without paying the course fee, **provided that the course is needed to complete your class schedule that semester.**

The following regulations apply toward such enrollment:

1. Class credits plus correspondence credits may not exceed the maximum number of credits which you are allowed each semester;

2. You may not add a correspondence course after the second week of classes nor drop it after the eighth week of classes;

3. Failure to complete the correspondence course taken under these conditions within 30 days after the close of the semester in which you are enrolled will result in recording either a grade of Incomplete or Failure. To receive an Incomplete, you must be doing passing work in the course and present a valid reason for failure to complete it. Request for permission to remove the Incomplete will be considered by the student affairs director at your campus. If permission is granted, you must pay a $5 reinstatement fee to the Independent Study Department.

If you plan to take a correspondence course in conjunction with a class program, your adviser will inform you of the registration procedures. You may purchase textbooks from The University of Wisconsin Extension by including the

order and payment for them with your application. In addition to your application, you will also be asked to complete a form certifying that you have registered and paid your fees at the campus.

Summer Session

The Center System campuses, as well as all the other University campuses, offer an eight-week summer session from mid-June to mid-August. The summer session gives you the opportunity to shorten the number of years you spend in college, make up credits you have lost, orient yourself to college life or lighten your fall class load. Many students combine summer study with a part-time job. You may carry one-to-nine credits and adapt a schedule to fit your needs.

Credit-No Credit

The Center System offers students the privilege of taking courses on a credit-no credit basis. (Some schools call this the pass-fail system.) The purpose is to permit you to take elective courses to explore a field or subject without regard for the letter grade earned in the course. The results of any course taken on this basis will not affect your grade-point average.

If you elect to take a course on this basis, you must pick a course outside of the basic degree requirements and preferably outside of any field in which you might major. Many four-year degree-granting colleges will not accept courses taken on a credit-no credit basis to meet degree and major requirements; they will accept such courses as electives to apply toward the total number of credits required for graduation. Please check the regulations of the college from which you plan to obtain your degree. Some colleges (for example, the UW College of Agricultural and Life Sciences) restrict the credit-no credit privilege to juniors and seniors.

All students new to The University of Wisconsin and all continuing students with at least a 2.0 grade-point average are eligible to elect one course per term (including summer) with a maximum of two such courses per year while you are a freshman, and two courses while a sophomore.

Instructors will report letter grades for all students. If you are taking a course on the credit-no credit basis, the registrar will convert letter grades of A, B or C to Credit (CR), and a D or F to No Credit (NC). CR or NC grades will not be counted in your grade-point average for any purpose. Credits in a course for which you receive a CR will count toward graduation.

If you elect to take a course on this basis, you must do so during the first two weeks of classes in a semester, or the first week of a summer session. You may not change the basis on which you are taking the course after that time; you may drop the course completely, subject to the usual restrictions for dropping a course. If you should sign up for a course on the CR - NC basis and be found not eligible to take a course on this basis, your registration will be changed automatically to a regular grade basis and you will be notified accordingly.

Scholastic Honors

The Center System recognizes high scholastic achievement during the freshman-sophomore years by publishing sophomore honors and high honors, which require a minimum grade-point average of 3.25 and 3.75 respectively for two years' work based on normal class loads.

During the freshman year, you may be invited to join one of the freshman national honor societies, Phi Eta Sigma for men or Sigma Epsilon Sigma for women. Both societies require a grade-point average of 3.5 or above. Men are invited to join on the basis of their first semester records (or the record for the year, if the first semester average does not meet the standard). Women are eligible after completing a year's work.

At the close of each semester, each campus publishes a Dean's List, honoring students who have attained at least a 3.25 grade-point average for that semester. If you earn a 4.00 (straight A) average, you will be given highest honors; a 3.75 to 3.99 merits high honors, and a 3.25 to 3.74 brings honors.

Auditing a Course

You may audit a course only if the instructor consents. Courses which consist principally of student participation, such as some of the music or speech courses, may not be audited since auditing a class means that you simply attend the lectures. Courses which are audited are not counted in determining full-time attendance.

Audited courses are included in determining the amount of fees to be paid on the same basis as if the course were taken for credit.

You may switch from audit to credit status during the first two weeks of classes, or from credit to audit during the first eight weeks of classes by following the procedures used for adding and dropping a course.

Taking a Course For 0 Credit

Some courses are listed in this catalog as "0-1 credit." If you take such a course for 0 credit, a letter grade will be recorded. You are expected to do all of the assigned work in a course taken for 0 credit.

Repeating a Course

If you wish to repeat a course which you have failed, or one which you have passed, or to strengthen your background in a subject, the course will be counted as part of your class load and a grade will be recorded. The credits and grade points will be entered on your record and used in determining your grade-point average. You may not count credits twice for the same course in determining the total number of credits earned toward your degree. This applies to repeating courses previously taken in college (at The University of Wisconsin, or another school if UW credit was granted) as well as toward repeating work which is a duplication of work taken in high school in a foreign language or in mathematics.

Changes in Program

You may find that you need to change courses after you have registered. You may obtain a change of program form in the student affairs office. This form should be completed by you to indicate the desired change. The form must be signed by the instructors concerned and by your adviser.

Adding Courses

You may add a course to your program only during the first two weeks of classes in a semester and during the first week of a summer session with the written permission (signature on the change of program form) of the instructor of the course and an adviser. After the two weeks' deadline, you may add only courses normally prerequisite to the course for which you originally registered. (For example, you registered for Math 221 and then found you should have been placed in Math 112, which is prerequisite to Math 221.)

Dropping Courses

You may drop a course during the first eight weeks of the semester and the first four weeks of a summer session without incurring failure by filling in the proper change form and securing the signature of an adviser and the instructor in the course. A full-time first semester freshman may reduce his program below 12 credits. If you are not a first semester freshman, you may not reduce your program to less than 12 credits. Exceptions may be made only in extenuating circumstances.

Students who originally registered as part-time students (less than 12 credits) do not need permission to reduce their programs but must make any program changes within the time limit.

Withdrawing From All Classes

You may withdraw completely from the University at any time prior to the last three weeks of classes during a regular semester or before the last two weeks during a summer session by first consulting with an adviser and then filling out the proper withdrawal forms. Students who do not complete the withdrawal form will receive grades of failure.

Absence from school during the last three weeks of the semester and/or failure to take the final examination will result in grades of failure.

Incompletes

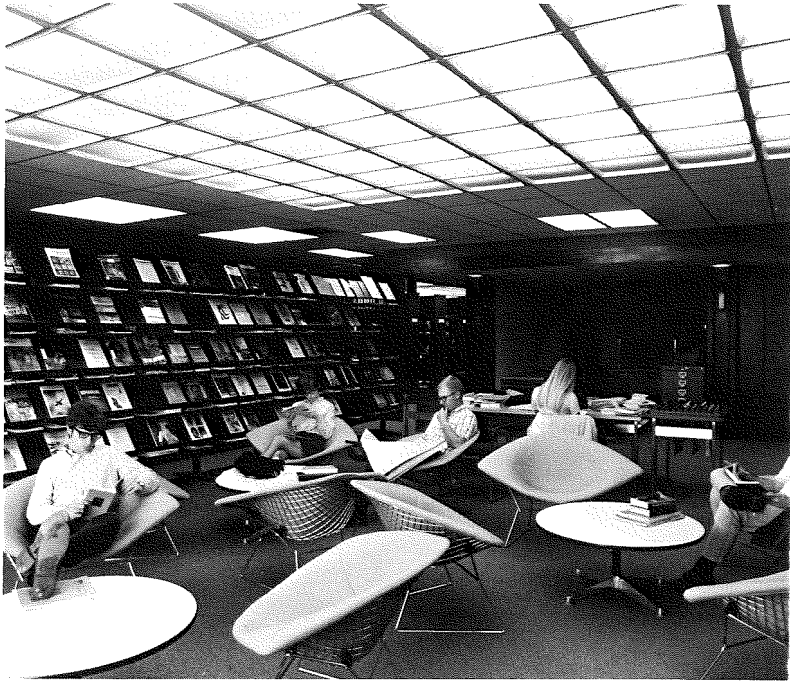
If, because of some unusual, substantiated reason beyond your control, you are unable to take or complete a final examination or a limited amount of course work, you may arrange with your instructor to be given an Incomplete in the course. You must be earning a passing grade in the course at the time. The following is a quotation from the Faculty Handbook of the Center System:

"You may give a grade of Incomplete if a student who has maintained a passing grade is not able to complete his work due to some factor beyond his control. If a student stays away from a final exam, his grade shall be 'F' unless he proves that he was prevented from taking the exam by

some factor beyond his control, in which case he is given an Incomplete. However, if you know from his term work that he could not have passed for the semester if he had taken the final exam, his grade shall be 'F' regardless of his reason for not taking the final."

Incompletes must be made up during your next semester in the University, or the Incompletes will be lapsed into a Failure. An instructor may set a shorter time limit for removal of the Incomplete if circumstances warrant. If your eligibility to continue at the campus depends on removing an Incomplete, you may be required to do so immediately. All students with Incompletes are required to secure permission to continue, regardless of the student's academic record, from the student affairs office.

Students are not permitted to remove an Incomplete by repeating the course. If you should repeat a course in which you received an Incomplete, your record will show that the original Incomplete lapsed into a Failure. An exception to this regulation may be made if you have been absent from the University for two years or more after



receiving the Incomplete. You may then request permission from the Academic Actions Committee to have the Incomplete remain on your record and not lapse into a Failure.

After five years absence from school, you cannot remove Incompletes unless you have special permission in advance from the student affairs director. Such Incompletes remain on the record and do not lapse into Failure.

Failures

You are required to remove Failures only in courses specifically needed to complete your degree or major. You may not remove a Failure by taking that course or a similar course in a college other than The University of Wisconsin, except with prior permission of the student affairs director.

Class Attendance

You are expected to attend each class in which you are registered, and to be present from the beginning to the end of the semester. Any absence from class is a matter between you and the instructor in the course. As you might expect, excessive absence from class may result in a failing grade.

Honesty

Strict standards of honesty are expected from you. The course work you submit must be your own, completed according to rules and instructions given. A plea of ignorance of such instructions cannot be accepted. Questions of dishonesty in class work are handled by the instructor or department in charge of the course.

Academic Actions

Each campus has a faculty Academic Actions Committee which functions in an advisory capacity to the student affairs staff in all cases where academic actions may be warranted. It also hears student appeals in cases of probation and drop actions, considers cases of readmission and hears student appeals from all administrative decisions concerning the academic regulations as stated in this section of the catalog.

You have a right to appeal any academic actions to this committee. All academic actions are taken at your campus and are a part of your official record within the University.

Probationary Actions

Failure to earn a 2.0 (C) grade-point average results in a probation status. The following regulations apply:

1. Generally, a first semester freshman who earns less than a 2.0 but at least a .5 grade-point average is on probation. A grade-point average less than .5 during your first semes-

ter results in a drop status. You may not register for classes if you have incurred a drop status.

2. If you are other than a first semester freshman and not already on probation, you put yourself on probation with a grade-point average of less than a 2.0 but at least 1.0. You incur the drop status by averaging less than a 1.0 in a semester.

3. If you are already on probation and earn less than a 2.0 but at least a 1.5 during any semester you are placed on final probation.

If you average less than a 1.5 in a semester, you will be dropped.

4. If you are on final probation, you must keep at least a 2.0 grade-point average each following semester to avoid the drop status.

Probationary Actions For Part-Time Students

If you carry less than eight credits a semester and earn less than a C average, you may be warned of your academic deficiency. In normal situations, no formal probationary action will be taken until you have been registered for at least two semesters. However, if you began the semester as a full-time student and earn less than a C average, you are subject to probationary action.

Probationary Actions For Summer Session Students

Summer session students are subject to probationary actions under the same conditions as students registered during the regular school year. However, if you take only one course in a summer session, and this session is your first enrollment in the University, no probationary action will be taken until you have completed another summer session or a semester. Your total record will be considered if and when any probationary action is placed on your record.

Removing the Probation Status

You may earn removal from probation or final probation when your cumulative grade-point average is at least 2.0 on all work attempted at The University of Wisconsin and you have at least a 2.0 in any semester after you were placed on probation. If you were admitted to the University on probation, you must earn at least a 2.0 on 24 credits to be removed from probation.

If you transfer to another school or college within the University, that school may apply its own probation standards and place you back on probation upon admittance to that school. Each school has its own probation and drop regulations.

Dropped Status

If your grades are such that you are dropped from school, you may appeal for readmission after staying out of school at least one semester. If you are dropped a second time, you must stay out of school at least one year. Appeals from the dropped status must be made through an adviser in the student affairs office.

Re-entry

To re-enter a campus after a lapse of one or more semesters, obtain Record of Residence and Application to Re-enter forms from the student affairs office. File them at least six weeks before classes begin. If you attended another school after leaving the campus, you must submit a transcript of your work. Send it to: Office of the Registrar, University Center System, 602 State Street, Madison, Wisconsin 53706.

If you have been out of school for two years or more, you will also be asked to have another physical examination. The health form will be mailed to you or you may get one from the student affairs office.

If you were on dropped status after your last semester, you will need to be formally readmitted before you can be given a Permit to Register. Also, no permit will be issued to a student who has delinquent fees or accounts with the University.

Associate in Arts or Science Certificate

If you have earned one-half the credits and grade points necessary for the bachelor's degree, you may be awarded an Associate in Arts or Science Certificate, at your request.

Transfers Within the University From Center System Campuses

If you are planning to transfer from a Center System campus to another UW campus, you should obtain an Application to Transfer form at your campus. This form should be completed and filed well in advance of the term for which you plan to transfer. The deadline dates for filing are the same as the dates for filing for admission to the University (see p. 30). Copies of your record will be forwarded automatically with the transfer form to the proper campus.

If you are receiving financial aid from the University, you should notify the Center System Financial Aids Office of your plans to transfer. You should also make a separate application for aid with the financial aids office at the campus to which you are transferring.

The requirements of the various schools and colleges of the UW are described in another section of the catalog (p. 30). If you meet these requirements at the time you

apply for transfer, you will be sent a Permit to Transfer with information about registration procedures. After you transfer, your academic record card is also transferred to the proper campus.

Transferring on Probation

It is possible to transfer from one campus of the University to another while on probation. If you are given a Permit to Transfer, you will be admitted to the new campus according to the probation regulations of the new school. It is also possible that you may have cleared probation on one campus and be put back on probation at the next campus. Your academic record will be treated on the new campus in the same manner as the record of students who have always been on that campus.

If you were dropped from any part of the University, you must be readmitted by the school from which you were dropped before applying for transfer.

From a Four-Year Campus to a Center System Campus

You may transfer from a four-year campus to a Center System campus by filing an Application to Transfer form (available at the registrar's office of any UW campus). If you are eligible to register at the campus last attended, you will be sent a Permit to Transfer. You should not transfer to a freshman-sophomore campus after you have attained junior standing. If an unusual circumstance arises and you would like to register at a two-year campus as a junior or senior, you will need permission from your home campus dean to be sure that the credits earned at the two-year campus will count toward graduation.

If you wish to transfer to a Center System campus and you have an Incomplete on your record, you must make arrangements to remove the Incomplete on the campus where the Incomplete was incurred. To remove a Failure incurred while you were in the College of Letters and Science on the Madison or Milwaukee campus, you must have permission from the associate dean of that college to repeat the course at the Center System campus.

From One Center System Campus to Another

If you plan to transfer from one Center System campus to another, please notify the student affairs office at either campus in advance of the registration period. Your records will then be transferred accordingly. If you were dropped from one campus and wish to attend another, you may appeal your dropped status to the student affairs office at either campus.

You should notify the Center System Financial Aids Office of your plans to transfer. You should also make a separate application for aid with the financial aids office at the campus to which you are transferring.

Transcripts

To obtain a transcript of your Center System work, fill out a Transcript Request card (available at the student affairs office on your campus) and send it to: Transcript Office, University Center System, 602 State Street, Madison, Wisconsin 53706. No transcript will be furnished to any student who owes the University any fine or other money.

There is no charge for any transcript.

Selective Service

The student affairs office will supply you with any certifications of attendance or student status that you may need to give your selective service board. It is your responsibility to inform your board of any changes in your status; the University does not communicate directly with your board. The University will certify a student who is in full-time attendance if he is carrying 12 or more credits. However, you should be aware that 12 credits are the minimum and will not assure your graduation in the normal time required for a degree.

A pamphlet containing draft information is available in the student affairs office.

CAMPUS LIFE

When a student goes away to college, he tends to adopt the campus community as his new world, his new environment. He has been forced, if only by physical distance, to leave his high school world behind. As he adapts to his new surroundings, he begins to think in terms of college ties, both inside and outside the classroom.

A Center System student faces a somewhat different situation. Because he commutes, life may not seem to change very much—he lives at home, keeps the same part-time job and often continues to socialize with only his high school friends. There is no factor other than his own interest to make him become a part of the campus community, and unless he is willing to make some effort to participate, he may feel that college really isn't any different from high school.

The students who are involved, however, find their activities are a way of amplifying the learning process of the classroom; activities provide the kind of informal learning that comes from associations with new people and new experiences. Getting involved doesn't have to mean joining every group on campus or being the first to volunteer for everything; students who concentrate energies on one or two organizations or projects usually find they have time to do a good job without having classwork or other responsibilities suffer.

A Center System student can find many opportunities for involvement. Each Center System campus offers many diverse activities—student government and student-faculty committees, drama and theater groups, student newspapers and yearbooks, forums and discussions, fine arts programs, sports and social events. The Center System campuses recognize the need to offer students something more than just two years of classrooms; it is hoped that each student will take advantage of the opportunities to make his college years as complete an educational experience as possible.

Student Government

As a student you are represented through a campus student association; its legislative body, often called a Student Senate; and the many student government committees which plan all-campus activities.

The student association requests that each student pay a voluntary activity fee to support the campus' student government. This student government activity fee often supports other student activities and organizations, as well as providing funds for social and educational programs of particular interest to students.

A student affairs staff member serves as faculty adviser to the student government.

Responsibilities as a student begin with electing representatives to your student government, and continue through your years as a campus student. You can be an active citizen of your campus by being informed, asking questions, actively participating and generally supporting your student association.

Student Organizations

Each Center System campus has many student organizations. Registered student groups at most campuses include language clubs, service sororities and fraternities, political and social action clubs, drama and music clubs and activities, and religious interest groups. If no club fits your interests you are free to organize a group.

Campus student organizations must be registered by the student government under policies of the student-faculty Student Life and Interests Committee (SLIC).

Publications

The student newspaper is an effective communications channel carrying campus news, editorials and features. Coverage also includes intercampus activities.

Membership in the student body qualifies you for a position on the staff. Staff officers and editors are elected by a publications board; the faculty adviser is also selected by this board or the dean.

Literary magazines are published at some campuses; they offer an outlet for creative writing in the fields of poetry, the essay and the short story. Other campuses have yearbooks.

Fine Arts Activities

Professional theater and ballet, as well as student productions, are performed at all campuses. You are invited to take part in dramatic performances under the guidance of experienced faculty.

Exhibitions of the work of famous artists and of students are shown regularly at all campuses. Both students and professionals present concerts of folk, jazz and classical music.

Distinguished American and foreign films are sponsored by the campus Lectures and Fine Arts Committees and various student groups.

Forum and Discussion Programs

World famous political figures and specialists from varied areas of interest are brought to a Center System campus by the Lectures and Fine Arts Committee, student government, student organizations and University departments. Informal student-faculty discussions on national, local and campus issues are also sponsored by various organizations. Most of these programs are free to the students and faculty.

Athletics Intramurals

Center System campuses offer varied intramural programs depending upon facilities available. The following are activities offered at some of the campuses: archery, badminton, baseball, basketball, bowling, curling, fencing, golf, gymnastics, handball, paddleball, soccer, softball, swimming, table tennis, touch football, cross country, volleyball, weight training and wrestling. These activities are supervised by the athletic director or faculty staff members.

You are eligible to participate in your campus' intramural program after you have paid your registration fees, have had medical clearance and have shown proof of adequate health and accident insurance.

Wisconsin Collegiate Conference

Your campus is a member of the Wisconsin Collegiate Conference (WCC), which is comprised of the seven UW Center System campuses, the two-year campuses of UW-Green Bay and the two-year branch campuses of the Wisconsin State Universities. The WCC provides varsity competition in basketball, fencing, golf, soccer, tennis, wrestling and cross country.

Participants who fulfill the necessary requirements receive the Varsity Campus award. All campuses have basketball, cross country, golf and tennis competition. Fencing, soccer and wrestling competition depends upon facilities, staff and student interest.

Cheerleaders are selected under campus athletic policies.

All participants in conference activities must have either the student insurance policy offered by the Center System or show evidence of some other kind of health and accident insurance policy.

The Wisconsin Collegiate Conference

Northern Division:	Southern Division:
Barron County	Baraboo-Sauk County
Fond du Lac	Richland Center
Fox Valley	Rock County

Marathon County
Marinette County
Manitowoc County
Marshfield-Wood County
Sheboygan County
Washington County
Waukesha County

Inter-Campus Conferences and Workshops

Forensic Tournament

Every year the University Center System speech department cooperates with one of the campuses in conducting a forensic tournament. Contestants from each campus compete for honors in the following fields: discussion, oratory, extemporaneous speaking and interpretive reading. The three contestants receiving the highest ratings in each event are awarded medals.

Music Workshop

Student vocalists and instrumentalists have an opportunity to exercise their skills at the annual music workshop. The workshop, presented in cooperation with one of the campuses, is conducted by directors selected by the University Center System music department.

Student Government Conference

At the annual student government conference, representatives elected by campus student governments meet to discuss ideas and methods of solving common problems.

The conference is sponsored by the University Center System in cooperation with an inter-campus student planning committee to improve student government and to assure continuity of leadership at each campus.

Drama Workshop

The Center System speech department drama workshop is held each fall in Madison or at one of the campuses. The participants are interested drama students from each of the campuses.

At this workshop the students engage in such activities as acting and directing exercises and technical theater demonstrations and discussions, many of which are led by experts in all phases of the theater. There is also the opportunity to view and later discuss one or more full length productions.

Editors' Conference

Each fall the University Center System Office of Student Affairs sponsors a workshop for student publications staffs and advisers. Participants discuss problems of writing, advertising, layout and photography and listen to suggestions for improvement from publications experts.

Student-Faculty Committees

You have many opportunities to contribute to campus life. Students and student groups help determine University policy both by recommendations to the faculty and by representation on faculty-student committees.

The University Center System has a Faculty Senate which sets policy frameworks for all campuses. The Senate committees, some of which include students as members, help in making Center System policy as well.

While ultimate authority lies with the Board of Regents and the faculty, you can exert positive influence on the policy making of your campus.

Each campus has several faculty-student committees. Students are generally interviewed by the student association in the spring of each school year; a panel of names for each committee is sent to the dean or other appropriate University official for selection and appointment to faculty committees. Students participate broadly in the decision-making process of their campuses through these faculty committees. The student voice is welcomed and contributes to the important functions and policies of the committees and the campuses.

Student government channels recommendations on policy changes in the area of extracurricular life and interests to the Student Life and Interests Committee (SLIC). This is the faculty committee designated to work in the field of extracurricular activities and is composed of students and faculty-administrative members. SLIC sub-committees have equal student-faculty representation.

The committee's range of concern includes defining eligibility requirements for participation in all phases of student activities (except athletics); counseling with student organizations and groups; and establishing policies, rules and regulations governing student social and group life. It often works in conjunction with student government and other student groups and is empowered to discipline organizations which fail to follow the established rules and policies.

Questions of dishonesty in class work are handled by the instructor or department in charge of the course or are referred to the Committee on Student Conduct and Appeals, made up of faculty members, with two students appointed by student government on the appeals division of the committee. Other questions of individual misconduct are handled by the committee also, often through the Office of Student Affairs.

Other faculty committees which include student members are the Lectures and Fine Arts Committee, Student Financial Aids and Athletics. In addition, each campus may have special faculty committees which include student members.

Office of Student Affairs

Your director of student affairs and his staff members stand ready to help you achieve the maximum benefits from your college experience. While the ultimate responsibility is yours, you can receive assistance in improving your study habits and reading skills, counseling on vocational objectives, financial advice, help in arranging your academic program, information on current University degree requirements and advice on personal problems. Answers to questions pertaining to selective service regulations and the enrollment of veterans are also available. In addition to these duties, the student affairs staff works closely with the student body in all phases of student government, social activities, inter-campus events, and other phases of student life.

CENTER SYSTEM COURSE OFFERINGS

On the following pages you will find a list of courses offered at the Center System campuses. Since each course is not given each semester at every campus, you should obtain an individual listing of current offerings from the campus you plan to attend.

When selecting courses keep in mind your plans to transfer to a four-year degree-granting institution after completing your freshman and sophomore years at a Center System campus. As a freshman and sophomore you should be taking many of the basic courses required for your degree. Degree requirements vary greatly for different fields of study and major; to avoid taking unnecessary courses or losing credits when you transfer it is wise to map out your total college program as early as possible: probable major or field of study, degree requirements, number of elective courses allowed, etc.

Information on the academic programs at The University of Wisconsin's degree-granting campuses (Green Bay, Madison, Milwaukee and Parkside) is given in the next section, Programs of Study. Information on academic programs at other colleges and universities may be obtained by writing to the student affairs offices at those institutions.

Note: The number following the department name is the curricular area number; it serves as a code number for the department or field of study.

Agronomy • 132

100. Principles and Practices in Crop Production. 4 credits. Survey of plant science and applications to agronomic practice.

Anthropology • 156

Anthropology is characterized by a comparative point of view, a focus on man in all his variation and similarity, and the verifiable conviction that history, biological endowment, environmental situation, way of life and language are all related in discoverable patterns.

Anthropology includes archaeology — the investigation and analysis of remains of past cultures, through excavation; physical anthropology — the study of the origin and evolution of the biological characteristics of man and the genetic diversity of contemporary races; cultural anthropology or ethnology—a study of the development and functioning of cultures, social systems, institutions, customs and arts, and the relation of these to human mentality and psychological needs; and linguistics — the analysis of varieties of human speech and the relationships between them.

100. General Anthropology. 3 credits. A course planned to give the student a general understanding of man in relation to the cultures he has built. Deals with man's evolutionary development, his capacity for society and the development of the world's major cultures. Open to freshmen. May not be taken by those who have taken ILS 121.

105. Introduction to Human Biology. 3 credits. The genetic basis of morphology, physiological and behavioral variation within and between human populations, and their origin and evolution. Open to freshmen. Prerequisite: one year high school or one semester university biology.

200. Cultural Anthropology. 3 credits. Variations of human cultures throughout the world and the comparative study of human institutions. Prerequisite: sophomore standing or Anthro. 100.

202. Prehistoric Archeology — Origins of Civilization. 3 credits. Development of human culture from its earliest beginnings to the historic period in the Old World as revealed by archeological studies. Prerequisite: sophomore standing or Anthro. 100.

204. Survey of World Ethnography. 3 credits. Ethnographic survey of representative primitive people and their cultures in recent times; major regions of the world considered in turn, with some attention to environmental factors and culture area classifications. Prerequisite: sophomore standing or Anthro. 100.

299. Independent Reading in Anthropology. 1, 2, or 3 credits. Prerequisite: sophomore standing and consent of instructor.

Anthropology staff members at the various campuses may be offering additional courses for three credits in their areas of special competence. The prerequisites for these courses will be sophomore standing and either Anthro. 100 or Anthro. 200 or consent of instructor. A student may take only one such course during his sophomore year. See the respective campus timetable for specific offerings.

Art • 168 The art courses serve three basic purposes:

1. They afford intensive training in small classes under the direction of mature and competent practicing artists, in a stimulating environment, to professional majors in this discipline. Majors will be able to complete, at most Center

System campuses, the first two years of their major requirements (34 credits).

2. They bring to students having to fulfill basic art requirements in other disciplines (elementary education, occupational therapy, recreation, etc.) a valid and creative art environmental experience.

3. They afford a needed opportunity to students in all disciplines to experience our culture, an experience so necessary for successful existence in today's world.

Art majors **must** enroll, preferably in the freshman year, in all courses marked below with an asterisk. Any deviation from this must be made in consultation with the faculty of the art department.

Art majors **must** enroll, for a total of 18 credits during their sophomore year, in any of the courses numbered above 132. Any deviation from this must be made in consultation with the faculty of the art department.

The following courses are open to Letters and Science students in the same way as regular Letters and Science subjects. Freshmen may elect Art 101, 102, 121, 122, 131 and 132; others may elect advanced courses if departmental prerequisites are met. (A maximum of 10 credits in art may be applied to a degree in Letters and Science.) **Art 104 and 106 will not count toward a degree in Letters and Science.**

For elementary education majors Art 100 will satisfy the art requirement. Elementary education majors intending to concentrate in art education as a field of specialization will want to use the following to satisfy this requirement: Art 101 or 131; 121 or 122; 151; 221 or 531.

100. Design and Drawing. 2 credits. A broad course in the elementary principles of design in the space arts. Applications are made in the basic craft materials, drawing and printing media. It is a laboratory-lecture course that meets four hours per week. **It will not apply for a major or minor in art and art education.** Majors and minors in that field should take the 101-102 and 131-132 sequence instead. It will satisfy the art requirement for elementary education majors.

***101. Basic Drawing I. 3 credits.** This course embraces basic linear perspective with an introduction to aerial perspective (light and shade). Emphasis is on the qualities of line, texture, and volume for its expressive qualities. Work is

done from the actual object and the human figure. This course will substitute for Drawing and Painting 106 in the elementary education curriculum at UW-Milwaukee. The course meets for six hours per week as a workshop. Open to freshmen.

*102. **Basic Drawing II. 3 credits.** This course continues the study of aerial perspective as applied to more complex objects and pictorial situations. There is a thorough exploration of many drawing media. This course meets six hours a week in a workshop. It will satisfy the art portion of the creative arts requirement in the elementary education curriculum. Prerequisite: Art 101. Open to freshmen.

104. **Contemporary Arts. 2 credits.** A study of painting, sculpture, architecture and the related arts. Emphasis is given to design composition and the analysis of representative works of art. **It will not apply for a major or minor in art or art education.** Prerequisite: Art 100.

106. **Drawing and Painting. 2 credits.** Elements of drawing and painting. Use of various drawing and painting media. **It will not apply for a major or minor in art or art education.** Prerequisite: Art 100.

*121. **Art Survey I. 2-3 credits.** A lecture and discussion course covering the more expressive contemporary visual arts (painting, sculpture, graphic arts and popular arts) from the standpoint of the creative artist. There is a special emphasis on the interpretations that the creative artist makes of the sociological concepts of this time.

Basic aesthetic principles are also stressed. This course may be substituted for Art 104 in the elementary education curriculum at UW-Milwaukee. A field trip is a required part of the course. Open to freshmen.

*122. **Art Survey II. 2-3 credits.** A lecture-discussion course covering the functional contemporary visual arts, community planning and architecture, interior design, product development and communication design with special emphasis on the study of these arts in relation to the creative artist and his time. Basic aesthetic and technological concepts are stressed. A field trip is a required part of the course. Open to freshmen.

*131. **Creative Design I. 3 credits.** This is a lecture-laboratory course that meets six hours per week. It deals with the basic elements of design in materials. This course will sat-

isfy the art portion of the creative arts requirement in the elementary education course. Open to freshmen.

*132. **Creative Design II. 3 credits.** This is a lecture-laboratory course that meets six hours per week. It gives the student the basic elements of design as applied to three-dimensional materials. This course will satisfy the art portion of the creative art requirement in the elementary education course. Open to freshmen.

151. **Introduction to Painting. 3 credits.** A lecture-laboratory course that meets six hours per week. Introduces the basic painting media — oil, watercolor, casein, etc. Prerequisite: Art 102.

161. **Life Drawing and Anatomy I. 3 credits.** A study of the human figure as a basic skill for all art expression. Investigations are made into fundamental bone and muscle structures as they apply to the visual arts. It is a laboratory course that meets six hours per week and draws from the living model. Prerequisite: Art 102.

162. **Life Drawing and Anatomy II. 3 credits.** A continuation of Art 161. A laboratory course meeting six hours per week. Prerequisite: Art 161.

171. **Lettering. 3 credits.** Proportions of the classical letter, contemporary layout and letter adaptations. Prerequisite: sophomore standing.

201. **Watercolor I. 3 credits.** A laboratory course exploring watercolor as a medium of expression. The course meets six hours per week. Prerequisites: Art 102 and 151.

202. **Watercolor II. 3 credits.** A continuation of Art 201. The course meets six hours per week. Prerequisite: Art 201.

211. **Oil Painting I. 3 credits.** A laboratory course exploring oil as a medium of expression. The course meets six hours per week. Prerequisites: Art 151 and 161.

221. **Sculpture I. 3 credits.** A laboratory course that meets six hours per week. Prerequisite: Art 132.

222. **Sculpture II. 3 credits.** A laboratory course that meets six hours per week. Prerequisite: Art 221.

261. **Ceramics I. 3 credits.** The introduction to the methods of

pot production stressing slab, coil and simple wheel construction. It is a laboratory course meeting six hours per week. Prerequisite: Art 131 and 132.

300. Graphic Arts. Introduction. 3 credits. Studio survey course in relief printing, intaglio and lithography. History, slide print study, criticisms. Prerequisite: Art 102.

301. Graphic Arts. Relief Printing. 3 credits. Aspects of relief printing; wood cut, collage print, linoleum cut and wood engraving; introduction to relief printing in full color. Prerequisite: Art 151 or consent of the instructor.

302. Graphic Arts. Lithography. 3 credits. Various aspects of lithography; direct drawing on the stone with crayon and tusche, transfer techniques, lithographic color processes. Prerequisite: Art 151 or consent of the instructor.

304. Graphic Arts. Etching. 3 credits. Studio work in intaglio techniques, including dry point, engraving and various etching procedures; fine printing is stressed. Prerequisite: Art 151 or consent of the instructor.

306. Graphic Arts. Serigraphy. 3 credits. Materials and techniques of the silk-screen process; investigation of various types of stencils and resists used in serigraphy. Prerequisite: Art 151 or consent of the instructor.

441. Advanced Creative Design. 3 credits. Experimentation in visual phenomena. Studio practice with lectures and readings in perception, design theory, philosophy and history of design. Prerequisites: Art 131 and 132 and consent of instructor.

531. General Crafts. 3 credits. Leatherwork, blockprinting, plastics, stenciling, papier mache, chip carving and other crafts involving materials and processes. This is a laboratory session meeting six hours per week. Prerequisites: Art 132 and consent of instructor.

541. Materials Workshop (Design). 2-3 credits. Exploration of materials as they apply to industrial production, emphasis on new applications for existing materials in three-dimensional problems in which both hand and power tools are used. This is a laboratory session that meets six hours per week. Prerequisites: Art 132 and consent of instructor.

Astronomy • 188

100. Survey of Astronomy. 4 credits. Descriptive survey of astronomy for students with little background in mathematics and physics; the physical nature of the universe; the solar system, stars, nebulae, galaxies; telescopic observations, lab demonstrations and discussions of astronomical methods; not open to students who have had the prerequisites required for Astronomy 200. Prerequisite: minimum mathematical preparation.

200. General Astronomy. 4 credits. Survey of astronomy for students with some background in mathematics and physics: the physical nature of the universe; the solar system, stars, nebulae, galaxies; telescopic observations, lab demonstrations and discussions of astronomical methods; not open to students who have taken Astronomy 100. Prerequisite: Physics 106 or 202.

Bacteriology • 192

101. General Survey of Bacteriology. 4 credits. An introduction to the fundamental principles and techniques of microbiology and their application to public health practices. The subjects of microbial genetics, evolution, taxonomy, anatomy and metabolic pathways are discussed. Prerequisite: an introductory chemistry course; Chemistry 102 or 103 is recommended.

Biochemistry • 200

201. Survey of Biochemistry (same as Chemistry 201). 3-4 credits. Lectures and demonstrations on the chemical make-up and metabolism of living organisms presented at an elementary level for non-science majors. Main emphasis on proteins, enzymes, nature of enzyme action, carbohydrates and fats as energy sources, metabolic processes involved in energy production, nucleic acids, biochemistry of genetic information transfer and protein bio-synthesis. Not accepted toward requirements for undergraduate or graduate degrees in biochemistry. May be taken for 4 credits when laboratory work is offered. Prerequisite: Chemistry 108 or equivalent.

Botany • 208

The decisions eventually to be made by students as private persons, family members, husbandmen of the environment, citizens of the city, state or world . . . will benefit from an understanding of living things at all levels of biological organization. The increase of such understanding is one of the main goals of this department. A second goal is the preparation of students for further study in the biological and related sciences. The introduction of the techniques of science, the major fundamental concepts and the presentation of selected examples of the body of knowledge illustrating them, are the tasks of the staff of scientist-teachers.

100. Survey of Botany. 3 credits. Structure, functions and life histories of representative plants throughout the plant kingdom.

130. General Botany. 5 credits. An introduction to plant sciences including the structure, development and physiology of plants. The relation of the major plant groups and the principles of biology. Illustrated with plant material.

160. Heredity (see Genetics 160 and Zoology 160). 3 credits. A general course in genetics designed especially for students

not specializing in science; principles of heredity with applications to plant, animal and human inheritance; current advances in genetics and their bearing on the life sciences; lecture, demonstrations and discussion. Prerequisites: An elementary biology course and sophomore standing are recommended.

400. **Classification of Cultivated and Native Plants. 3 credits.** Representative families and genera of flowering plants, use of keys and manuals, lecture and lab. Prerequisite: introductory course in botany.

Business Administration • 216

The overall objective of the department of business administration is to provide a formal education that will contribute to a student's capacity to achieve high standards of performance in the economic, political and social institutions of the environment in which he finds himself. A more specific objective is the formal learning program designed to help the student understand the concepts and techniques essential to professional business and/or government achievement and graduate study — providing him with the tools that are essential when it comes to making managerial decisions.

200. **Introductory Accounting. 3 credits.** Fundamental principles of accounting; basic business terminology, techniques and practices; books and accounts, and statements for retailing and wholesaling concerns; treatment and presentation of sole proprietorship, partnership and introductory corporation accounts. Open to second semester freshmen; sophomore standing recommended. May not be included in credits for graduation in the College of Letters and Science.

201. **Intermediate Accounting. 3 credits.** Accounting theory, principles, concepts and procedures as they apply to balance sheet and income statement accounts; presentation and interpretation of financial reports, including the problems of terminology, manufacturing valuation and analysis. Prerequisite: Business 200.

Chemistry • 224

The department of chemistry offers a program in chemistry designed to meet a wide variety of needs. Students completing a sequence of general, organic and analytical chemistry may transfer to a four-year institution and complete their undergraduate training as a chemistry major in the usual number of semesters. Course offerings also meet the needs of students entering into applied science fields such

as engineering, medicine, nursing and medical technology. A course is available for those students requiring only one semester of a physical science to meet science requirements for graduation. All campuses have excellent facilities and make use of the latest developments in lecture, classroom and laboratory. There is ample opportunity for a student to have individual counseling and guidance by experienced teachers.

102. General Chemistry. 5 credits. Two hours of lecture; two hours of recitation; one three-hour laboratory or two two-hour laboratory periods. A course in general inorganic chemistry, beginning with the study of nonmetals and of the fundamental principles of chemistry.

103. General Chemistry. 4 credits. Introductory college chemistry. The subject matter is equivalent to Chemistry 102, the introductory concepts being covered more rapidly and with different lab experiments. Serves as a prerequisite for Chemistry 104; lecture, lab and discussion. Prerequisite: course in high school chemistry.

104. General Chemistry and Qualitative Analysis. 5 credits. Two hours of lecture; two hours of recitation; one three-hour laboratory or two two-hour laboratory periods. Continuation of Chemistry 102. Prerequisite: Chemistry 102 or 103.

107. Numerical Problems in General Chemistry. 1 credit. Open to all students who expect to take further courses in chemistry and required of chemistry course and chemical engineering students who cannot take Chemistry 110. Prerequisite: Chemistry 104 or concurrent registration.

108. General Chemistry. 5 credits. For the student who will take only one semester of chemistry. Two hours of lecture; two hours of recitation; one three-hour laboratory or two two-hour laboratory periods. A one semester course with extra emphasis given to organic chemistry. Does not serve as a prerequisite for second semester general chemistry.

201. Survey of Biochemistry (same as Biochemistry 201). 3-4 credits. Lectures and demonstrations on the chemical make-up and metabolism of living organisms presented at an elementary level for non-science majors. Main emphasis on proteins, enzymes, nature of enzyme action, carbohydrates and fats as energy sources, metabolic processes involved in energy production, nucleic acids, biochemistry of genetic information transfer and protein bio-

synthesis. Not accepted toward requirements for undergraduate or graduate degrees in biochemistry. May be taken for four credits when laboratory work is offered. Prerequisite: Chemistry 108 or equivalent.

223. **Elementary Quantitative Analysis. 4 credits.** Two hours of lecture, two three-hour laboratories. A course in the essentials of quantitative analysis. Analysis of naturally occurring ores and commercial materials. For chemistry course students, chemistry majors and chemical engineering students. Satisfies requirements for Chemistry 221. Prerequisite: General Chemistry, including qualitative analysis.

341. **Elementary Organic Chemistry. 3 credits.** Three hours of lecture. A one semester course for those students not planning to take Chemistry 345. Prerequisite: Chemistry 104, 106, 110, or consent of instructor.

343. **Introductory Organic Chemistry. 3 credits.** Three hours of lecture. Covers the chemistry of the paraffin and unsaturated hydrocarbons, cycloalkanes, alkyl halides, polyhalogen compounds, alcohols, ethers, monocarboxylic acids and their derivatives, aldehydes, ketones, amines, carbohydrates, proteins, benzene and its homologues, halogenation, nitration and sulfonation of aromatic hydrocarbons; aromatic amines; an introduction to resonance stereoisomerism and tautomerism. Prerequisite: Chemistry 104, 106, or 110.

344. **Introductory Organic Chemistry Lab. 2 credits.** Six hours of laboratory. Includes the qualitative tests for elements found in organic compounds, the preparation, purification, and properties of a number of representative and important organic products, including ethylene, ethylene dibromide, butanone, ether, ethyl bromide, ethyl benzoate, acetyl chloride, acetic anhydride, aniline, acetanilide, nitrobenzene, sulfanic acid and methyl orange, and reactions of aldehydes, ketones, carbohydrates and proteins. The principles and techniques involved with the various processes stressed. Prerequisite: concurrent registration in or credit for Chemistry 343.

345. **Intermediate Organic Chemistry. 3 credits.** A continuation of Chemistry 343 covering derivatives of benzene and its homologues, polynuclear hydrocarbons and their derivations, polyhydroxl alcohols, polybasic acids, optical isomerism, further studies in proteins, sugars, starch, cellulose and its derivatives, heterocyclic compounds, synthetic

drugs and alkaloids. Considerable emphasis is placed upon physiological applications of organic compounds. Prerequisite: Chemistry 343.

Computer Sciences • 246

In little more than twenty years the electronic digital computer has reshaped the world. It has affected, either directly or indirectly, virtually every person on earth, and has been one of the machines essential to freeing man from the earth. It is such a basic fundamental device that in the immediate future nearly every area of human endeavor will begin to be or continue to be involved with the computer. Whether one thinks of art, business, music, sociology, engineering, education, mathematics, agriculture, library science, medicine, languages, law — one could go on indefinitely — one can see untapped computer power waiting in the wings. Probably no discovery of man, including things as fundamental as the wheel or fire, has such wide potential and application, most of it as yet unused.

132. Introduction to Computing Machines. 3 credits. How computers work, communicating with computers, areas of application and significance, simple FORTRAN programming, elementary data processing and problem solving. An intensive and demanding survey course. The class meets four hours each week to allow the instructor to supervise student programming efforts. Prerequisite: intermediate level high school mathematics or a course in college mathematics.

Dairy Science • 292

101. Livestock Production (same as Meat and Animal Sci. 101). 4 credits. General principles of livestock physiology, feeding, genetics and breeding, marketing and management; lectures, demonstrations and discussion; short field trips as part of lab.

Economics • 296

Everyone lives in an economic environment and faces a continual succession of economic problems. The study of economics, an important and necessary element of a liberal education, provides students with an understanding and appreciation of contemporary economic problems both national and international. In dealing with such problems, the department of economics attempts to describe their historical evolution and provide alternative theories and techniques that may be applied in attempting their solution.

101. General Economics. 3-4 credits. A study of the economic system, emphasis on problems and policies for students not planning to major in economics. Economic institutions, markets and prices, income distribution, business fluctuations, economic growth, comparative economic systems. May not be taken for credit by students who have had or are currently enrolled in Economics 103 or 104.

103-104. Principles of Economics. 3 credits. Designed for students planning to major in economics and commerce or for students who desire a broad basic one-year course in economics. Economics 103 covers economic methodology, national income, business fluctuations, monetary and fiscal policies and economic growth. Economics 104 covers economic problems related to households, firms and market structures and emphasizes value, price and distribution of income. Economics 103 may not be taken by students who have taken Economics 101. Should a student elect Economics 104 prior to Economics 103, the second course in his economics sequence must be Economics 103.

330. Money and Banking. 3 credits. Monetary and banking principles and practice; price theories; banking systems and their operation. Prerequisite: Economics 101 or 103.

Engineering Graphics • 343

Engineering is the application of natural phenomena for utilization by man. It embraces all phases of human activity. The water you drink, the pigments of the artist, the transistor radio and computer; the bicycle and the space-

craft—all involve engineering. The courses offered by the department of engineering augment physics, chemistry and mathematics offerings to provide the first two years towards the B.S. degree in most of the engineering disciplines.

102. **Elements of Descriptive Geometry. 3 credits.** Orthographic projection and its application to the analysis and solution of three-dimensional problems involving points, lines, planes and solids; axonometric projections for pictorial representation with engineering applications. The class meets six hours each week to allow the student to do most of his drawing under the supervision of the instructor. Prerequisite: intermediate math preparation or consent of instructor.

113. **General Engineering Graphics. 3 credits.** Advanced principles of projection and perspective, sectional views, dimensioning, freehand sketching, isometric and oblique pictorials, graphs, maps, structures, machines, assembly drawings and individualized problems designed to serve the requirements of the several engineering curricula. The class meets six hours each week to allow the student to do most of his drawing under the supervision of the instructor. Prerequisite: Engineering Graphics 102 or consent of instructor.

Engineering Mechanics • 346

Engineering is the application of natural phenomena for utilization by man. It embraces all phases of human activity. The water you drink, the pigments of the artist, the transistor radio and the computer, the bicycle and the spacecraft — all involve engineering. The courses offered by the department of engineering augment physics, chemistry and mathematics offerings to provide the first two years towards the B.S. degree in most of the engineering disciplines.

101. **Statics. 3 credits.** Principles of mechanics, force systems, equilibrium, structures, distributed forces, moments of inertia of areas, and friction. This course will serve the requirements of the several engineering curricula. Prerequisite: Mathematics 221.

102. **Dynamics. 3 credits.** Kinematics, force-mass-acceleration relations, work and energy, impulse and momentum, moments of inertia of mass. This course will serve the requirements of the several engineering curricula. Prerequisites: Engineering Mechanics 101 and Mathematics 222.

English • 350 The three basic purposes of the courses offered by the department of English are:

1. To enable students to improve their ability to use the English language clearly and effectively as an instrument of written communication;

2. To provide students with the opportunity of improving their skill in using the English language as an art form;

3. To enable students to read literature with understanding and appreciation of its distinguishing characteristics, and to acquaint them with some of the most significant literary productions in one of three areas—English literature, American literature and contemporary British and American literature, where they will find exemplified the ways in which one can gain through the study of literature an understanding of the society in which the literature is produced and a greater insight into the nature of man.

The department recognizes its obligation to offer courses that not only are valuable in themselves but also provide students with a sound foundation for advanced work in the field of English and related subjects.

101. Fundamentals of Writing. 3 credits.

102. Introductory Writing. 3 credits. Basic courses which endeavor to develop ability to write clearly and effectively. Exemption from English 101 will be granted on the basis of a student's performance on the placement examination taken as part of the registration procedures.

200. Introduction to Literature. 3 credits. Intensive analysis of poetry, drama and fiction, using representative types from several periods of English and American literature. Prerequisite: completion of English 102 or its equivalent, or the departmental waiver of this prerequisite based on placement test scores.

201. Expository Writing. 3 credits. The theory and practice of informative and persuasive writing. Prerequisite: completion of English 102 or its equivalent, or the departmental waiver of this prerequisite based on placement test scores.

203. Introduction to Creative Writing. 3 credits. Chiefly devoted to writing and studying the short story. Prerequisite: English 102 or its equivalent.

204. Critical Writing. 3 credits. Study and written analysis of examples of various types of literature in English. Prereq-

uisite: completion of English 102 or its equivalent, or the departmental waiver of this prerequisite based on placement test scores.

205. English Literature. 3 credits. A study of representative work by the most outstanding English writers. Prerequisite: English 200 or one semester of sophomore literature other than English literature.

209. Twentieth Century Literature. 3 credits. An approach to literature through significant and representative modern prose and poetry. Prerequisite: English 200 or one semester of sophomore literature other than twentieth century literature.

211. American Literature. 3 credits. A study of representative work by the most outstanding American writers. Prerequisite: English 200 or one semester of sophomore literature other than American literature.

227. Introduction to Shakespeare. 3 credits. Ten-to-twelve representative plays and the sonnets are read. Prerequisite: completion of six credits of literature.

251. Studies in Dramatic Literature. 3 credits. An exploration of some aspect of drama or the theory of drama, of the internal history of the genre or the distinctive character of the mode, and its application in practical criticism to an appropriate body of English and American literature. Prerequisite: six credits of literature.

253. Studies in Narrative Literature. 3 credits. An exploration of some aspect, problem or distinctive variety of narrative or the theory of narrative, in such forms as the novel, the epic, the romance, and its application in practical criticism to an appropriate body of English and American literature. Prerequisite: six credits of literature.

Additional courses may be offered by members of the department of English in the areas of their special competence.

French • 400 The department of French offers the work of the first three years of language study and an introduction to the study of literature. First and second-year courses are designed to develop, as rapidly and thoroughly as feasible, basic skills in speaking, listening comprehension, reading and writing. Third-year courses introduce the student to the study of

French literature and further develop skills in speaking and writing the language.

103. First Semester French Non-Intensive. 4 credits. For students who have had no previous training in the language. Emphasis on oral practice, grammar and reading.

104. Second Semester French Non-Intensive. 4 credits. Prerequisite: French 103 or one year of high school French.

203. Third Semester French. 4 credits. Intensive and extensive reading; grammar review; elementary composition and development of oral facility. Prerequisite: one year of college French (or equivalent) or two years of high school French.

204. Fourth Semester French. 4 credits. A continuation of French 203. Prerequisite: three semesters (or equivalent) of college French; or three years of high school French.

221. Introduction of French Literature. 3 credits. Masterpieces in the novel, drama, poetry and essay (17th and 18th century authors). Lectures, discussion, exercises in translation and interpretation. Prerequisite: French 204 or equivalent.

222. Introduction to French Literature. 3 credits. Masterpieces in the novel, drama, poetry and essay (19th and 20th cen-

tury authors). Lectures, discussion, exercises in translation and interpretation. Prerequisite: French 204 or equivalent.

227. Conversation and Composition (Intermediate Level). 2 credits. Development of facility in oral and written French. Prerequisite: French 204 or equivalent with consent of instructor. May be taken concurrently with French 221 or French 222.

228. Conversation and Composition (Intermediate Level). 2 credits. Continuation of French 227. Prerequisite: French 227 or consent of instructor. May be taken concurrently with French 222 or French 221.

299. Intermediate Independent Reading. 2-3 credits. For exceptional students in lieu of a regular course. Readings, discussions, reports, papers to be determined by individual instructor. Meetings to be arranged. Prerequisites: French 204 or equivalent and consent of instructor.

Genetics • 412

160. Heredity (see Botany 160 and Zoology 160). 3 credits. A general course in genetics designed especially for students not specializing in science; principles of heredity with applications to plant, animal and human inheritance; current advances in genetics and their bearings on the life sciences; lecture, demonstration and discussion. Prerequisites: An elementary biology course and sophomore standing are recommended.

Geography • 416

Instruction in the geography department gives a basis for understanding aspects of the varied and changing character of the earth's surface. Course offerings may be grouped into two categories: physical geography courses in which major emphasis is placed on phenomena and processes of the natural environment, and cultural geography courses in which emphasis is placed on man and his works as set within the natural framework. Implicit in both course categories are descriptions of observable features, understanding of location and variation in patterns of arrangement, and analysis of functional relationships and processes.

Geography 120, 123, and 124 are laboratory courses in natural science. Geography 125 gives natural science credit but not laboratory credit. Geography 101, 110, 115, 350, 510, 514 and 521 carry social science credit.

Students with any other course in physical geography or in ILS 132 may not take course 120 or 125 for credit, or either semester of 123-124.

101. Introduction to Cultural Geography. 3 credits. An examination of world distribution patterns of population, settlement and cultural forms and their causal relationships. Open to freshmen.

110. The World: Peoples and Regions. 3 credits. Introduction to cultural geography through the study of representative and significant regions and nations. Open to freshmen.

115. Economic Geography. 3 credits. Analysis of location of population and the distribution and character of the leading economic activities (agriculture, fishing, forestry, mining, manufacturing, transportation and trade) in major world regions. Open to freshmen.

120. Survey of Physical Geography. 3 credits. Characteristics and world distribution of physical factors which in combination form the natural environment: elements of weather and climate, climatic types, earth materials, landforms and earth resources. Two hours of laboratory per week. Open to freshmen.

123. Physical Geography. 5 credits. The form of the earth; earth-sun relationships; elements of climate; characteristics, distribution and significance of climatic types; the seas; natural vegetation; soils. Laboratory and field trips. Open to freshmen.

124. Physical Geography. 5 credits. Introduction to maps; characteristics, distribution and significance of landform types; the continental margins and the sea floors, water resources of the land; mineral resources. Laboratory and field trips. Open to freshmen.

125. Survey of Physical Geography. 3 credits. Content similar to that of Geography 120 listed above except that 125 has no laboratory work. Open to freshmen.

350. Conservation of Natural Resources. 3 credits. Problems arising from man's use of earth resources. Principles of management that make for a continuation of natural resource adequacy. Emphasis on the United States. Sophomore standing.

510. The United States and Canada. 3 credits. Physical and cultural aspects of the regions of the United States and Canada preceded by a study of overall characteristics of the climate, surface configuration and natural resources. Sophomore standing.

514. Wisconsin. 3 credits. The physical features, resources, population, land utilization and economic development of the state. Sophomore standing.

521. Middle America. 3 credits. Description and analysis of the physical and cultural landscape of Mexico, Central America and the West Indies. Sophomore standing.

Geology • 420

Instruction in geology gives a basis for understanding and appreciating the natural physical world and in addition may serve as a step in the preparation for a professional career, not only in geology, but also in the fields of anthropology, archeology, ethnology and the biological sciences.

Geology 100, 101 and 102 are laboratory courses in the natural sciences.

100. Survey of Geology. 3 credits. A brief study of minerals, rocks and the processes which create and modify the surface features of the earth; field trips and laboratory. Not open to those who have had Geology 101, 102 or 105. Open to freshmen.

101. General Geology. 5 credits. Geologic processes in operation on and beneath the surface of the earth; lecture, laboratory, field trips. Students who have had Geology 100 may receive only two credits. Open to freshmen.

102. Geologic Evolution of the Earth. 5 credits. Physical history of the earth in relationship to the orderly development of life throughout geologic time; lecture, laboratory and field trips. Prerequisite: Geology 100 or 101.

German • 424

The department of German offers the work of the first three years of language study. Elementary courses are designed to develop basic skills in speaking, listening comprehension, reading and writing as rapidly and thoroughly as feasible; courses at the intermediate level seek to introduce the student to German literature and further develop skills in speaking and writing the language. In a very broad sense, the department aims to lay the groundwork for its students' future understanding of and appreciation for the German-speaking peoples' contributions to the whole of western civilization.

103. First Semester German. 4 credits. For students with no previous knowledge of German. Emphasis on reading, oral practice and grammar.

104. Second Semester German. 4 credits. Continuation of German 103. Prerequisite: German 103 or equivalent.

203. Third Semester German. 3 credits. Intensive reading, grammar review and continued oral practice. Prerequisite: German 104 or equivalent.

204. Fourth Semester German. 3 credits. Continuation of German 203. Prerequisite: German 203 or equivalent.

215. Elementary Conversation. 2 credits. May be taken concurrently with German 203. Prerequisite: German 104 or equivalent.

216. Intermediate Conversation. 2 credits. May be taken concurrently with German 204. Prerequisite: German 215 or consent of instructor.

221. Introduction to German Literature. 3 credits. Selected readings from German literature of the last two centuries; discussions; transition from language study to study of literature. Prerequisite: German 204 or equivalent.

222. Introduction to German Literature. 3 credits. Continuation of German 221. Prerequisite: German 221 or equivalent.

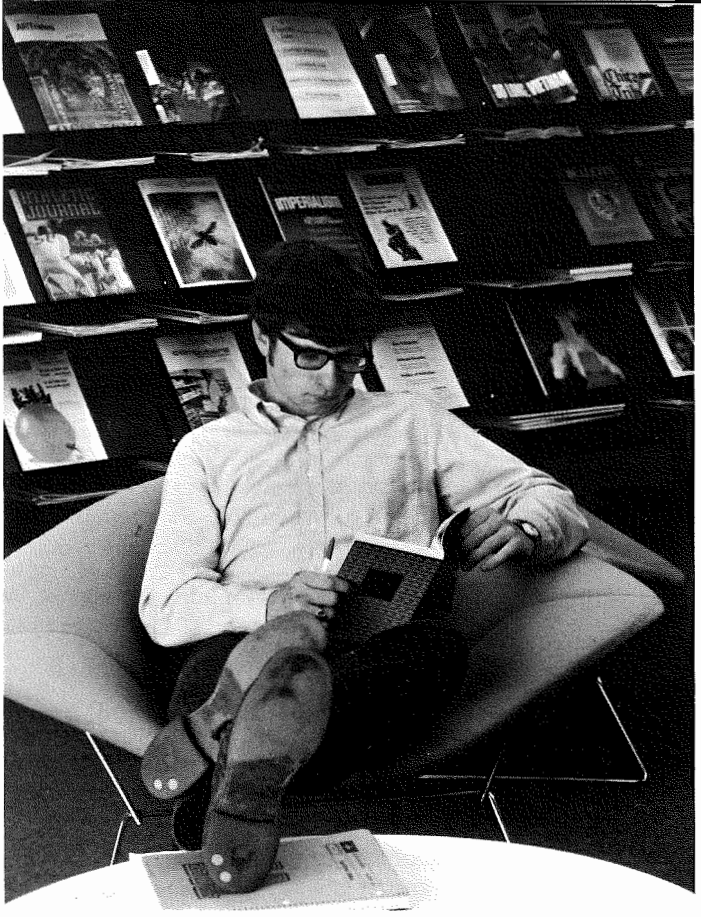
225. Intermediate Composition and Conversation—First. 3 credits. Grammar review and conversation. Extensive composition practice. Prerequisite: German 204 or equivalent.

226. Intermediate Composition and Conversation — Second. 3 credits. Continuation of German 225. Prerequisite: German 225 or equivalent.

History • 448

There is no dearth of definitions of history. "History is philosophy teaching by examples," said Henry Bolingbroke. "History is a fable agreed upon," retorted Napoleon Bonaparte. Americans have generally sided with Bolingbroke. Typically they have looked for some utilitarian values in the study of history and find them in the often quoted words of George Santayana: "A nation that does not know history is fated to repeat it." An American humorist of a generation ago, Irvin S. Cobb, voiced the sentiments of those who can remember as far back as the Hoover Administration: "The trouble with the young is that they haven't read the minutes of the last meeting."

History as the "knowledge of things said and done" seems



a bit unmanageable. The "facts" of history are equally elusive. History as fact cannot be reconstructed like an experiment in chemistry or physics yet we often hear of a science of history. As the phrase suggests there is a discipline involved in the study of history. It is the understanding of this discipline and the difficult art of discovering meaning in what remains of the past as fact that we have in mind when we speak of history as a field of study. History gives perspective to other related subjects, particularly the humanities and the social sciences.

In this age of increasing specialization most historians are trained in European or United States history as broad fields within which they concentrate upon narrower specialties. A minority of historians in the United States concentrate upon other geographic areas: Latin America, Africa, the Far East, the Middle East, India and even Southeast Asia. Traditionalists consider these fields somewhat exotic. But, in a sense, to study Western European and United States history is to know yourself: not a bad starting place.

101. American History 1607-1865—the Origin and Growth of the United States. 3 credits. Survey of American political, economic and social development from the founding of the colonies to the Civil War.

102. American History, 1865 to the Present. 3 credits. Survey of American political, economic and social development from the Civil War to the present.

119. The Making of Modern Europe, 1500-1815. 3 credits. An introduction to the principal developments in the history of Europe from the Renaissance to the fall of Napoleon.

120. Europe and the Modern World, 1815 to the Present. 3 credits. A general survey of the political, economic, social and cultural history of modern Western civilization.

227. The World in the Twentieth Century. 3 credits. Survey of the major trends in Europe, Asia, Africa and the Americas since 1900; the two world wars, the social and political revolutions of our time; Fascism and Communism; the new states of Africa and Asia. Prerequisite: sophomore standing.

225. Problems in American History. 3 credits. Discussions, reports on reading, research papers; meet in weekly two-hour sections; enrollment limited. Prerequisite: sophomore standing with overall grade-point average of 3.0 and/or consent of instructor.

355. Problems in European History. 3 credits. Discussions, reports on readings, research papers; meet in weekly two-hour sections; enrollment limited. Prerequisite: sophomore standing with overall grade-point average of 3.0 and/or consent of instructor.

390. History of Wisconsin. 3 credits. History of Wisconsin from the beginning of the historical period to the present, with emphasis on the economic and social aspects of Wisconsin history since 1815. Prerequisite: sophomore standing or consent of instructor.

Other freshman and sophomore courses in history may be offered at individual campuses dependent upon faculty fields of interest and schedules. Descriptions of such courses may be found in the Letters and Science catalog of the Madison campus.

Horticulture • 476

120. Survey of Horticulture. 3 credits. Survey course for the beginning student; scientific basis for horticultural practices; scope of the field of horticulture; introduction to propagation, culture, management, improvement, storage and marketing of flowers, fruits, ornamentals and vegetables.

Journalism • 512

The department of journalism provides core instruction and counsel in the study of the media, audiences and effects of news and public affairs communication and in the techniques of gathering, reporting and writing news and feature material for mass media publication and broadcast. An additional goal of the department is to assist in the development of a professional attitude toward the practice of journalism through the counsel and example which are provided by academically trained and professionally experienced journalism instructors.

100. Journalism Laboratory. 0-1 credit. Practical application of the principles of observing, reporting, writing, photographing, editing and management for journalistic publications or newscasts. Students work for a campus publication and submit copies and reports of their work to the instructor for evaluation and critique. Specific requirements are made by the instructor. Open to all students every semester by consent of instructor.

201. Mass Communications: Role and Effects of Press, Radio, Television and Film in Modern Society. 3 credits. How the mass media are organized and how they function in modern society; their technological bases, economic and political foundations, social implications. Required for journalism majors on the Madison campus.

202. Mass Media and Contemporary Issues. 3 credits. Analysis of contemporary public issues as reported in the mass media, with emphasis on news and feature content of radio, television, newspapers and other periodicals. Techniques of content analysis. Specific issues for study to be determined at the time the course is offered. Prerequisite: Journalism 201 or consent of instructor.

203. News and Informational Writing. 2 credits. Instruction and practice in written communication of factual materials under close supervision of instructor. Course treats writing for news media, but spends time on procedures and techniques which are basic for all informational writing. Required for journalism majors. Center System students may take this course through independent study (correspond-

ence) if not currently available at their campus. Prerequisites: satisfaction of freshman English requirement and Journalism 201 or concurrent registration for journalism pre-majors on the Madison campus, or consent of instructor.

204. News Reporting. 3 credits. Emphasis on the gathering of news and interviewing. Field work in the community. Required for journalism majors in the news-editorial sequence. Prerequisite: Journalism 203.

Mathematics • 600

Mathematics has traditionally held an important and unique place in the liberal arts as well as the scientific curriculum. However, only relatively recently has the importance of mathematics to research areas, such as biology, social sciences and certain of the humanities become evident. In addition to the expanded range of mathematical applications, there has also been an enormous growth in the pure mathematical sciences.

The courses offered by the department are designed for the preliminary training of students interested in careers in mathematics, and are also aimed at providing the necessary mathematical background for students in other disciplines.

All courses offered by the department of mathematics require mathematical preparation consisting of a minimum of one unit of algebra and one unit of geometry.

101. Introductory College Algebra. 2 credits. Basic properties of the rational and the real number systems; the fundamental operations of algebra; linear and quadratic equations and inequalities; graphing linear functions, direct and inverse variation. Primarily for students who have had elementary preparation (normally two years of high school mathematics including elementary algebra and geometry). Course will carry two credits for students who have had less than three years of mathematical preparation in high school (one to one-and-a-half years of algebra and one year geometry). Course carries no credit for students who have had three years or more mathematical preparation or for students in engineering. Prerequisite: a satisfactory score on the numerical section of the CQT examination.

107. Introductory Mathematics of Finance and Probability. 4 credits. Mathematical characteristics of currently used financial growth laws; annuities; amortization; sinking funds and bonds; the algebra of sets; elementary logic and probability; Bayes theorem; independence of events.

Does not count as part of the mathematics requirement for the B.A. or B.S. degree but may be taken as an elective course for credit by students who are candidates for either of these degrees. Prerequisites: Mathematics 112 or equivalent; or advance mathematics preparation and a satisfactory score on the placement examination.

110. Elementary Statistical Analysis. 3 credits. Elements of probability theory; collection and presentation of sample data; basic problems of statistical inference; applications, including quality control; regression; elements of statistical design. Prerequisite: Mathematics 221 or equivalent.

112. College Algebra. 3 credits. Non-linear functions and graphs, including logarithmic and exponential functions; systems of linear equations; theory of polynomial equations; complex numbers; mathematical induction and the binomial theorem; arithmetic and geometric progressions.

Primarily for both engineering and non-engineering students who have had intermediate mathematical preparation (one-and-a-half to two years algebra and one year geometry). Not open for credit to students who have the prerequisites for Mathematics 221 or for students in engineering. Prerequisites: two units of high school algebra and one unit of high school geometry and a satisfactory score on the placement examination; or Mathematics 101.

113. Plane Trigonometry. 2 credits. Trigonometric functions, their basic properties and graphs; trigonometric identities and equations; geometric applications of trigonometric functions; trigonometric form of complex numbers and DeMoivre's Theorem.

Primarily for both engineering and non-engineering students who have had two years of algebra and one year of geometry in high school. Not open for credit to students in engineering. Prerequisites: two units of high school algebra and one unit of high school geometry and a satisfactory score on the placement examination; or Mathematics 112; or concurrent registration in Mathematics 112.

115. Mathematics for Elementary Teachers. 4 credits. Basic concepts of set theory and logic; structure of mathematical systems, development of number systems; systems of numeration; development of the basic algorithms of arithmetic. Prerequisites: one unit each of high school algebra and geometry; sophomore standing and registration in the Program for Preparation of Elementary School Teachers.

211. Calculus and Related Topics. 4 credits. Primarily for students in Letters and Science who wish to acquire some knowledge of the development of mathematics and its use in the modern world. Topics include the essential concepts of differential and integral calculus and of linear algebra (matrix theory) with applications. Students who are preparing for further study in advanced mathematics (e.g., majors in mathematics, physics, etc.) should take the sequence Mathematics 221, 222, 223. Prerequisites: Mathematics 112 and 113, or four units of high school mathematics and a satisfactory score on the placement examination.

212. Calculus and Related Topics. 4 credits. Continuation of 211. Prerequisite: Mathematics 211.

221. Calculus and Analytic Geometry. 5 credits. An introduction to differential and integral calculus and plane analytic geometry, with applications. Prerequisites: Mathematics 112 and 113, or four units of high school mathematics and a satisfactory score on the placement examination.

222. Calculus and Analytic Geometry. 5 credits. Continuation of Mathematics 221. Further topics in analytic geometry and calculus; transcendental functions and vectors; techniques and application of integration; improper integrals. For both engineering and non-engineering students. Prerequisite: Mathematics 221.

223. Calculus and Analytic Geometry. 5 credits. Continuation of Mathematics 222. Solid analytic geometry; partial derivatives; multiple integrals; infinite series; introduction to differential equations. For both engineering and non-engineering students. Prerequisite: Mathematics 222.

251. Topics in College Mathematics. 4 credits. A development in depth of several problems from concrete examples to a mathematical theory. Emphasis placed on both the method of abstraction and the theory itself. Prerequisites: Mathematics 112 and 113, or four units of high school mathematics and a satisfactory score on the placement examination.

320. Linear Mathematics. 3 credits. Introduction to linear algebra, including matrices, linear transformations and eigenvalues. Linear systems of differential equations. Numerical aspects of linear problems. Prerequisite: Mathematics 223.

Meat and Animal Science • 604

101. Livestock Production (same as Dairy Sci. 101). 4 credits. General principles of livestock physiology, feeding, genetics, and breeding, marketing and management; lectures, demonstrations and discussion; short field trips are part of the lab.

Music • 660

The Center System music department has two functions in the life of the campus student.

There are the performing musical organizations, band, choir, orchestra and instrumental and vocal ensembles open to all campus students regardless of major academic field. There are also offerings in music literature for general cultural development.

There are class offerings for the music major or minor interested in obtaining degrees in music performance or teaching.

Some of the music courses listed below are open to all students; others are offered primarily for students who wish to work for a degree in elementary education; still others are open only to students who plan to major or minor in music.

Students wishing to major or minor in music must confer with the chairman of the music department at their campus. In addition to meeting the general University requirements, each music major or music minor student should be able to demonstrate his qualification for the specific music curriculum of his choice.

The following courses may be taken by all students with a major or minor in music: 121-122, 211-212, 221-222, 241, 243, 245, 246.

The following courses may be taken by all students: 40, 55, 62, 201, 202, 265, 267, 268, 269. Students may count only six credits of work toward a degree in "organization" courses, for example, Music 40, 55 and 62.

The following courses are designed to fill requirements for the elementary classroom teacher: 101, 201. The student is advised to take Music 201 before Music 101.

40. Band. 0-1 credit. Open to all students by tryout. Band training, study and performance of standard band literature.

55. Chorus. 0-1 credit. Open to all students by tryout. Choral vocal training, study and performance of concert literature.

62. **Orchestra. 0-1 credit.** Open to all students by tryout. Playing of music from symphonic repertoire.

101. **Fundamentals of Music. 2 credits.** This course is designed to acquaint the student with the fundamentals of music through experiences with the keyboard, rhythm instruments, singing, listening, note reading and so forth, so that he will be able to teach and supervise his class music program. Not accepted as part of a music major or minor or towards a degree in Letters and Science at Madison or Milwaukee. Class meets for three hours.

121. **First Year Theory. 4 credits.** Studies in basic notation; intervals, scales and modes; rhythm; contrapuntal harmony, written and keyboard; sight singing and ear training; selected music for harmonic and form analysis. Open only to music majors and minors. It is recommended that students have a background in piano before taking this course. Class meets for five hours.

122. **First Year Theory. 4 credits.** A continuation of Music 121.

201. **Introduction of Music Literature. 2 credits.** A guide to musical enjoyment and understanding; includes listening experiences in the various styles and forms of music, through assigned readings, the use of recorded music and sound films and attendance at concerts. Not accepted as part of a music major or minor. Class meets for three hours.

202. **Introduction to Music Literature. 2 credits.** A continuation of Music 201.

211. **History of Western Music. 3 credits.** A survey of the historical development of musical style and theoretical concepts from ancient Greece to the present. Prerequisite: freshman theory or its equivalent or consent of instructor. Class meets for four hours.

212. **History of Western Music. 3 credits.** A continuation of Music 211. Class meets for four hours.

221. **Second Year Theory. 4 credits.** Aural and written harmony; keyboard harmony and figured bass; harmonic counterpoint; sight singing and sight playing; ear training analysis. Prerequisite: First year theory. Class meets for five hours.

222. **Second Year Theory. 4 credits.** A continuation of Music 221.

241. Vocal Technics. 2 credits. Theory and practice in fundamentals of singing. Prerequisite: consent of instructor. Class meets for three hours.

263. Ensemble-Vocal. 1-2 credits. Assignments in performing ensemble literature. Prerequisite: consent of instructor. Class meets for two hours per credit.

265. Ensemble-Woodwind. 1-2 credits. Assignments in performing ensemble literature. Prerequisite: consent of instructor. Class meets for two hours per credit.

267. Ensemble-Brass. 1-2 credits. Assignments in performing ensemble literature. Prerequisite: consent of instructor. Class meets for two hours per credit.

271. Ensemble-Jazz. 1 credit. A performance and laboratory group. Prerequisite: consent of instructor. Class meets two hours for one credit.

Music Applied • 664

Applied music courses are available to freshmen majoring in music, occupational therapy and recreation. The prerequisites for courses in applied music beyond the fundamental level are successful completion of the preceding course in a sequence and consent of instructor. Normally, a student taking an applied music course should be registered concurrently for Music 121-122 or 221-222.

All students registered for applied music courses will be assessed the full semester fee regardless of the number of credits carried.

It should be noted that applied music on **all** instruments and voice is not available from Center System staff. In such cases, an accredited and approved teacher in the area will give this instruction.

The student must consult with the music adviser on his campus before registering for these applied courses.

Music Applied Chart (curricular area number 664) for Piano, Organ and Voice:

Course	Cr.	Piano Number	Organ Number	Voice Number
Fundamentals	2	001*	.....	005
Fundamentals	2	002*	.....	006
Elementary	2	041*	.....	.....
Elementary	2	042*	.....	.....
Intermediate	2	043	.....	.....
Intermediate	2	044	.....	.....

First Year	2	101	103**	105
First Year	2	102	104	106
Second Year	2	201	203	205
Second Year	2	202	204	206

*Admission contingent upon eligibility for Piano 101.
**May be taught as a class or as private lessons.

Music Applied Chart (curricular area number 664) for Wind and String Instruments, Elementary Level:

Course	Cr.	Number	Course	Cr.	Number
Flute	1	007	Tuba	1	025
Oboe	1	009	Percussion	1	027
Clarinet	1	012	Violin	1	031
Saxophone	1	014	Viola	1	033
Bassoon	1	015	Cello	1	035
Horn	1	017	String Bass	1	037
Trumpet or Cornet	1	019	Harp	1	040
			Guitar	1	046
Trombone	1	021			
Baritone	1	023			

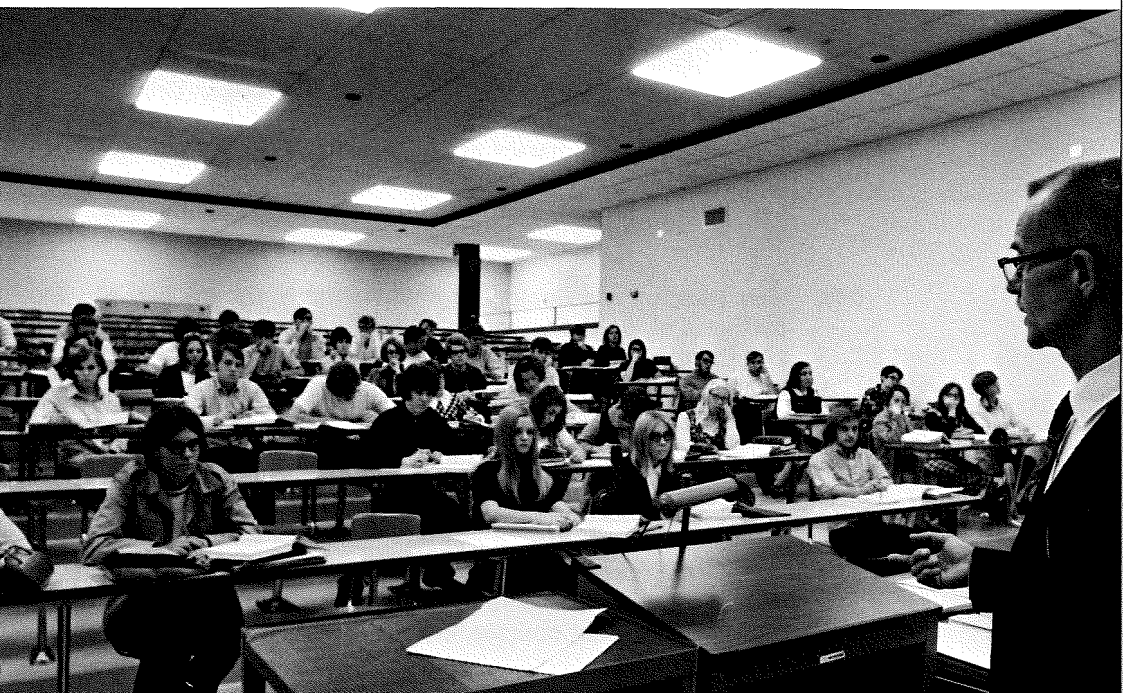
Music Applied Chart (curricular area number 664) for Wind and String Instruments; Intermediate, First Year and Second Year Levels:

Course	Cr.	Intermed.		1st Year		2nd Year	
Flute	2	047	048	107	108	207	208
Oboe	2	049	050	109	110	209	210
Clarinet	2	051	052	111	112	211	212
Saxophone	2	053	054	113	114	213	214
Bassoon	2	055	056	115	116	215	216
Horn	2	057	058	117	118	217	218
Trumpet or Cornet	2	059	060	119	120	219	220
Trombone	2	061	062	121	122	221	222
Baritone	2	063	064	123	124	223	224
Tuba	2	065	066	125	126	225	226
Percussion	2	067	068	127	128	227	228
Violin	2	071	072	131	132	231	232
Viola	2	073	074	133	134	233	234
Cello	2	075	076	135	136	235	236
String Bass	2	077	078	137	138	237	238
Harp	2	079	080	139	140	239	240

Philosophy • 736 Philosophy is traditionally defined as the love of wisdom. It involves reflection on and understanding of all phases of human activities. The courses offered by the department deal, among other things, with the nature of knowledge, reality, morality, society, art and aesthetic experience, as well as science, politics and religion. These courses are designed to help the student develop his own capacity to reflect intelligently on questions of fundamental and lasting significance.

101. Introduction to Philosophy. 3 credits. Introduction to philosophic thinking through examination of the problems of freedom, knowledge and what is worthwhile. Open to freshmen and sophomores who have had no previous philosophy courses other than Philosophy 211.

102. Introduction to Social Philosophy. 3 credits. Studies of opposing philosophical views about man and his political and social life. Prerequisite: Philosophy 101 or sophomore standing.



CENTER SYSTEM COURSE OFFERINGS

103. Belief, Knowledge and Truth. 3 credits. Study of the grounds of rational belief and knowledge and the methods used for obtaining them, with particular emphasis on problems of evidence and truth. Prerequisite: Philosophy 101 or sophomore standing.

211. Elementary Logic. 3 credits. Principles, standards and methods of distinguishing good reasoning from bad, as applied to deductive and inductive inferences. Nature and detection of fallacies, and linguistic pitfalls affecting reasoning. Open to freshmen and sophomores.

226. Philosophical Ideas in Literature. 3 credits. A study of philosophical and moral ideas as embodied in selected works of literary art: aesthetic analysis of their structure and content. Prerequisites: sophomore standing and three credits in philosophy.

241. Introductory Ethics. 3 credits. Nature of moral problems and of ethical theory, varieties of moral skepticism, practical ethics and the evaluation of social institutions. Prerequisite: Philosophy 101 or sophomore standing.

253. Philosophy of the Arts. 3 credits. Production, appreciation and criticism of works of art; sources and use of standards. Prerequisite: Philosophy 101 or sophomore standing.

254. Social Problems of Contemporary Art. 3 credits. Critical consideration of problems raised by the activities and productions of contemporary artists, such as freedom, censorship, uses of art, function of artists in society, social benefits of art. Prerequisite: Philosophy 101 or sophomore standing.

258. Man, Religion and Society. 3 credits. Study and critique of the views of theistic and secular writers concerning religion and its relationship to individual and social problems. Prerequisite: Philosophy 101 or sophomore standing.

520. Philosophy of the Natural Sciences. 3 credits. Nature and function of science; the logic of scientific method; clarification of such concepts as cause, law, theory, probability, determinism, teleology. Prerequisites: sophomore standing and three credits in philosophy.

Philosophy staff members at the various campuses may be offering additional courses in their areas of special competence.

Physical Education-General (Men • 740) (Women • 741)

Students may elect to take activity courses as offered at the various campuses. The offerings may include such activities as water safety, weight training, basketball, handball, etc. These courses may be elected for one credit. Whether this additional course work will count as degree credit depends on the regulations of the school or college from which the student seeks his degree (credit in these courses will not count toward a degree in Letters and Science or Business).

If you are interested in an activity course, please consult with the physical education instructor before registering, to determine your eligibility for the activity.

Professional Physical Education (Men)* • 742

Courses offered in this department are designed to prepare students to be teachers in elementary and secondary schools or non-school agencies such as YMCA's, clubs and institutions. To be certified for a State Teaching Certificate to teach in elementary or secondary schools, students must have a 2.5 grade-point average by their junior year. Students who by their junior year do not have a 2.5 G.P.A. will be directed into non-school agencies.

Starting in the junior year, students may concentrate in one of the following: elementary school physical education, secondary school physical education, coaching, scientific research, non-school agencies or adapted physical education.

*Credit in these courses will not count toward a degree in Letters and Science or Business.

101. Orientation and Introduction to Physical Education. 2 credits.

102. Physical Education Activities. 2 credits. Tumbling and individual sports.

103. Techniques and Materials for Individual Activities. 2 credits. Tennis, badminton, paddleball, handball, squash and gymnastics.

104. Techniques and Materials for Individual Activities. 2 credits. Winter sports, fencing and golf.

105. Techniques and Materials for Team Activities. 2 credits. Wrestling and basic swimming.

106. Advanced Techniques and Materials for Team Activities. 2 credits. Swimming, waterfront safety course.

109. Physical Education Fundamentals for Teaching. 2 credits. Laboratory instruction and teaching.

110. Basketball Fundamentals, Theory and Team Play. 2 credits.

201. Nature, Function and Organization of Play. 2 credits. Organization and administration of playgrounds. Open to men and women.

211. First Aid. 1-2 credits. The one-credit course informs the student how to handle common emergencies and injuries; the two-credit course prepares students to become instructors in first aid upon completion of course with a grade of B or better. Open to men and women.

Physics • 754

The physics department provides a variety of introductory courses. One sequence of three semesters (201, 202, 205) is designed for students desiring to major in a physical science or in an applied science such as engineering. Students in this course sequence must have a strong background in mathematics. Another sequence (105, 106) consists of two semesters and is designed for those with less preparation in mathematics. This sequence meets the needs of students in applied science fields such as medicine and dentistry and in natural sciences such as botany, zoology and geology. Students may also select this sequence in order to satisfy a physical science requirement. A one semester course in introductory astronomy is a recent addition at several campuses.

Note: The physics courses are not always numbered identically in the Center System, Madison and Milwaukee catalogs. For example, the Center System's courses 201-202 are comparable to courses 207-208 on the Madison campus. Compare course descriptions and prerequisites to determine which Center System courses correspond to those offered on the Madison and Milwaukee campuses.

105. General Physics. 4 credits. Studies in mechanics, heat, wave, motion and sound. Three hours of lecture, three hours of discussion-laboratory. Recommended for students majoring in business, elementary education, medical technology, pharmacy, physical education, pre-dentistry and pre-medical studies. Prerequisites: one unit of high school algebra and one unit of high school plane geometry.

106. General Physics. 4 credits. A continuation of Physics 105. Electricity and magnetism, light and modern physics. Three

hours of lecture, three hours of discussion-laboratory. Prerequisite: Physics 105.

201. General Physics for Engineers. 5 credits. Studies in mechanics; wave motion, sound and heat. Required of sophomores in civil, chemical, mechanical and mining engineering. Prerequisite: Mathematics 222 or concurrent registration.

202. General Physics for Engineers. 5 credits. Studies in magnetism, electricity and light. Continuation of Physics 201. Prerequisite: Physics 201.

205. Modern Physics for Engineers. 3 credits. Introduction to atomic, nuclear and solid state physics. Prerequisites: Physics 202 and consent of instructor.

Physiology • 762

104. Anatomy and Physiology. 4 credits. Lectures, recitation and laboratory dealing with the structure of the human body and the physiology of the organ systems. Prerequisites: general chemistry or concurrent registration in general chemistry with consent of instructor; biology or zoology.

Political Science • 778

The department has two objectives: to disseminate knowledge about the political phenomenon, both domestic and foreign, to students; and to produce new knowledge about politics through research endeavors of its departmental members. The teaching function is geared to the level of freshman and sophomore instruction, but advanced courses are offered when needed. The content and structure of the courses serve a two-fold purpose of acquainting students with the political processes and issues of this country to provide them with means for making rational individual judgments, and to give those who seek to major in political science a conceptual foundation for their future work. The format of the instruction is diverse. Aside from regular classroom presentation, the department sponsors symposia, colloquia, seminars and public lectures in which outside speakers participate.

101. Introduction to Politics. 3-4 credits. Approaches to political inquiry; basic problems common to all political systems; issues and practices of American politics. Open to freshmen and sophomores.

105. **State Government and Public Policy. 3 credits.** Studies in the federal system constitutional basis and structure of state and local governments, domestic functions of all levels of government. Open only to freshmen and sophomores.

106. **Comparative Government and Politics. 3 credits.** A comparative analysis of the political systems of major European and other selected nations of the world, stressing comparison of institutions, processes and methods of comparative analysis. Open to freshmen.

175. **International Relations. 3 credits.** A survey of conditions determining power and policies of individuals; nation-states; conflicting national policies; and international institutions. Open to freshmen.

201. **Introduction to Political Theory. 3 credits.** A survey and analysis of historical and recent ideas relating to political systems and values. Prerequisite: previous course in political science or consent of instructor.

213. **Urban Politics. 3 credits.** Organization and politics of city government; changing political structures and leadership patterns in urban policy problems. Prerequisite: previous course in political science or consent of instructor.

222. **Politics, Parties and Pressure Groups. 3 credits.** An analysis of the nature and functions of political parties; organization and leadership structure of political parties and pressure groups; nominations and elections; voting behavior; and survey research techniques. Prerequisite: previous course in political science or consent of instructor.

223. **Proseminar in Political Science. 3 credits.** The nature and subject of this course to be announced by instructor. Prerequisite: previous course in political science or consent of instructor.

243. **Public Administration. 3 credits.** An introductory study of the role and principles of administration in modern government; an analysis of the organized processes of government for the effective utilization of human and material resources to attain the goals of society. Prerequisite: previous course in political science or consent of instructor.

Social Science 201 may be elected as a political science course.

Political science courses are available for honors credit on an individual basis.

Psychology • 820

Present day psychology, as an academic discipline, undertakes the study of the intellectual, emotional and social characteristics of human behavior, through scientific means. Courses in the department summarize information developed principally from experimental research on the biological basis for behavior, human development, learning, memory and intellectual capacity, motivation and emotional behavior, language and thought, and the characteristics of behavior important in inter-personal and social relationships. In addition to emphasizing a general understanding, attention is given to the differences among individuals. Some applications of this basic information are briefly covered, but the complexity of the subject matter severely limits practical applications. Instead the student can expect to gain some appreciation of methods employed and viewpoints developed in this field, and may find these provide a useful framework and background in relation to his other educational and intellectual efforts at the University.

CENTER SYSTEM COURSE OFFERINGS

201. Introduction to Psychology. 4 credits.

202. Introduction to Psychology. 3 credits. Development of human behavior in infant and child; motivation, frustration, emotion and biological functions; intelligent behavior; learning, retention and forgetting; social behavior, language and thinking; personality; efficiency. Prerequisite: advanced freshman standing.

204. Experiential Introduction of Concepts of Human Behavior. 3 credits. Lecture/discussion presentation of concepts of human behavior will be related to concurrent experiences in community agencies — e.g. schools, welfare department, county hospital. Agency placements involve a minimum commitment of five hours per week and will provide some direct contact between the students and agency clients. Two hours of lecture and discussion will be required, with opportunity for additional individual discussion. Prerequisite: consent of instructor.

205. Psychology of Human Adjustment. 3 credits. Personality adjustment and maladjustment in normal persons; need, frustration and conflict; adjustive techniques; analysis and rehabilitation. Prerequisite: Psychology 201 or 202. This is designed as a terminal course for individuals in other areas of concentration, and **does not count toward the major in psychology.**

210. Psychometric Methods. 3 credits. Calculation and interpretation of measures of central tendency, variability and correlation in psychological research; hypothesis testing and estimation from large and small samples. Prerequisite: Psychology 201 or concurrent registration.

225. Experimental Psychology. 5 credits. Psychophysical methods; sensory and perceptual functions, learning, transfer and forgetting; emphasis on research techniques and methodology; lecture, demonstration and experiments. Prerequisite: Psychology 201 or 202.

507. Psychology of Personality. 3 credits. Modern approaches to the organization and development of personality. Prerequisite: Psychology 201 or 202.

530. Introductory Social Psychology. 3 credits. Introduction to the general area of social psychology covering such topics as motivation, attitude, value, communication, leadership, etc. Prerequisites: Psychology 201 or 202, or Sociology 101

or Anthropology 100; also sophomore standing or consent of instructor.

560. Child Psychology. 3 credits. Learning principles; motor, language, emotional and social development of the child. Emphasis on experimentation and systematic investigation. Prerequisite: Psychology 201 or 202.

561. Psychology of Adolescence. 3 credits. Physical development, intellectual, emotional and social behavior, and the problems of adjustment which accompany and follow the physiological changes in puberty. Prerequisite: 201 or 202.

Social Science • 890

201. Proseminar on Developing Nations: Asia. 3 credits. A comparative analysis of economic, political and social problems confronting Asian states, stressing the factors leading to change and affecting the development of modern institutions and processes. Prerequisites: any course in the social sciences (history, sociology, etc.) and consent of instructor. Course may be elected for credit in economics or political science.

Sociology • 900

Sociology is the science of those aspects of human behavior dependent on the fact that man lives within groups. The sociologist studies the systems of interpersonal relations identifying social aggregates; the patterns of interaction between these groups; the major institutional structures and functions; and the components of personality determined by group membership. In some courses, the emphasis is on fundamental knowledge; in others, it is on the application of this knowledge to the problems of our own and other societies.

Specialization in sociology may lead to graduate study, preparatory to a variety of public and private research positions, or teaching. Sociology may provide a valuable supplement to training in the other behavioral sciences and in professional fields like business, law, journalism, industrial relations, international affairs, social work and personnel administration. In addition, the study of sociology contributes insight and understanding to the responsible member of society.

101. Man in Society: An Introduction to Sociology. 3 credits. A course in interrelationships of personality, society and culture; social processes, structures, institutions and functions

as they affect the building up and tearing down of society. Open to freshmen.

*120. **(Formerly Soc. 260) Marriage and the Family. 3 credits.** Nature of the family. Processes of courtship and marriage interaction. Correlations of physiological, psychological, economic and sociological contributions to marriage and family life. Open to freshmen.

*125. **(Formerly Soc. 278) Contemporary American Society. 3 credits.** Patterns of contemporary social life in the United States and Canada; cultural orientation, social structures and dynamics of social change. Open to freshmen.

*130. **(Formerly Soc. 102) Social Disorganization. 3 credits.** Conditions and processes in personal and social maladjustment; nature of social problems, their relation to social change and basic ideological, technological and institutional structures and processes. Open to freshmen.

*134. **(Formerly Soc. 224) Problems of American Minority Groups. 3 credits.** The nature, problems and adjustments of American racial, religious, ethnic and nationality groups; proposals for reduction of intergroup tensions. Open to freshmen.

*170. **Introduction to World Population. 3 credits.** Determinants and consequences of population size and growth. Changing levels of birth rates and death rates and their future social and economic implications. Fertility regulations and population policies in countries at various stages of development. Open to freshmen.

*A student can count only two of these five courses toward credit for a sociology major at UW-Madison. Other divisions of The University of Wisconsin as well as other colleges are also likely to limit the number of courses taken at the freshman-sophomore level which they would accept for transfer as counting for credit in fulfilling the requirements should sociology be the student's major field.

Most colleges (including UW-Madison and UW-Milwaukee) do provide, at the junior-senior level, opportunities for initial study in these areas if not taken during the freshman-sophomore years.

299. **Independent Reading in Sociology. 1, 2, or 3 credits.** Prerequisites: sophomore standing and consent of instructor.

357. **Methods of Sociological Inquiry. 3 credits.** Scientific methods and their application in the analysis of society; pro-

cedures in testing sociology theory; problem definition, hypothesis construction, collection and evaluation of data. Prerequisite: sophomore standing and an introductory level course in sociology.

530. Introductory Social Psychology (same as Psychology 530). 3 credits. Introduction to the general area of social psychology, covering such topics as motivation, attitude, value, communications, leadership, etc. Prerequisites: sophomore standing and either Soc. 101 or Anthro. 100, or Psychology 201 or 202.

Sociology staff members at the various Center System campuses may be offering additional three-credit courses in their areas of special competence. The prerequisites for these courses will be sophomore standing and either Soc. 101 or consent of instructor. A student may take only one such course during his sophomore year. See the respective campus timetable for specific offerings.

Spanish • 912

The department of Spanish offers the work of the first three years of language study. Courses of the first four semesters are designed to develop basic skills in speaking, listening comprehension, reading and writing as rapidly and thoroughly as feasible. Courses in literature are devoted to the study of Spanish literature as such, and the third-year composition and conversation courses offer additional practice in these two phases of language work.

Thus, the department provides the basic knowledge essential for later more advanced and specialized work in Spanish. In addition, the department aims to increase students' awareness of the importance of literary-cultural studies as a means toward the fullest possible realization of the individual's potential.

103. First Semester Spanish. 4 credits. Spanish grammar, elementary reading, oral practice and cultural background. For students who have had no Spanish.

104. Second Semester Spanish. 4 credits. A continuation of Spanish 103. Prerequisite: Spanish 103 or one year of high school Spanish.

203. Third Semester Spanish. 4 credits. Grammar review; intensive class reading; study of vocabulary, idioms and syntax; oral and composition practice. Prerequisite: Spanish 104 or two years of high school Spanish (or equivalent).

204. Fourth Semester Spanish. 4 credits. A continuation of Spanish 203. Prerequisite: Spanish 203 or three years of high school Spanish.

221. Elementary Survey of Spanish Literature. 3 credits. Introduction to the study of Spanish literature; readings, discussions, literary history. Twelfth to seventeenth centuries. Prerequisite: Spanish 204 or equivalent.

222. Elementary Survey of Spanish Literature. 3 credits. A continuation of Spanish 221. Eighteenth to twentieth centuries.

225. Third-Year Conversation and Composition. 3 credits. Emphasis on oral and composition practice. Prerequisite: Spanish 204 or equivalent.

226. Third-Year Conversation and Composition. 3 credits. A continuation of Spanish 225. Prerequisite: Spanish 225 or equivalent.

299. Intermediate Independent Reading. 2-3 credits. For exceptional students in lieu of a regular course. Readings, discussions, reports, papers to be determined by individual instructor. Meetings to be arranged. Prerequisites: Spanish 204, or equivalent, and consent of instructor.

Speech • 920 The department of speech offers basic courses dealing with the theory and practice of communication in its many forms, including public address, group discussion, oral interpretation, broadcasting and theater. The courses are designed to sharpen the student's awareness of the crucial role of communication in the modern world and to help him develop and improve his communication skills. Complementing the formal instruction is a co-curricular program in forensics and theater which provides students the opportunity to practice their skills in competition and public performance.

099. Forensic Laboratory. 0-1 credit. The practical application of the principles of forensics through the preparation for and the participation in intercollegiate speech experiences. This includes debate, discussion, extemporaneous speaking, oratory, interpretative reading, impromptu speaking. Credit will not count toward a degree from the UW-Madison. Open to all students with consent of instructor.

100. Theater Laboratory. 0-1 credit. Practical application of the principles of acting, directing, stagecraft and/or management through actual participation in dramatic productions. Specific requirements will be made by the instructor depending upon area or areas assigned. Credit will not transfer to the UW-Madison, but the course will count toward Theater Division practicum requirements. Open to all students every semester with consent of instructor.

101. Fundamentals of Speech. 3 credits. Instruction in the principles of preparing and presenting effective public messages. Application of these principles in the analysis of contemporary speeches and in the presentation and critique of student speeches. Open to freshmen. Not open to those who have had Speech 105 or 181.

130. Introduction to Dramatic Arts. 3 credits. Study of the nature of drama, important plays and presentation on stage, in motion pictures, by television. Open to freshmen.

160. Speech and Human Behavior. 3 credits. Consideration of the nature of public discourse through the study of leading theorists, examination of fundamental problems and concepts, and analysis of examples of public discourse. Open to freshmen.

230. Fundamentals of Oral Interpretation. 2 credits. Emphasis on understanding literature through study of meaning,

imagery, mood and theme. Analysis and development of techniques in presentation. Prerequisite: sophomore standing; for speech majors a beginning speech course. Open also to second semester freshmen who have successfully completed Speech 101, 105, or 181, and with consent of instructor.

231. **Elements of Dramatic Production. 3 credits.** Play analysis, fundamentals of acting, directing, staging, lighting, costuming and make-up, theatre organization and business management. Not open to theatre concentration majors. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 130, or 181, and with consent of instructor.

232. **Fundamentals of Acting. 3 credits.** Action, voice and analysis of character for portrayal of realistic roles in proscenium and arena. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 130, 181, and with consent of instructor.

241. **European Drama and Theatre: Ancient Greece to the 17th Century. 3 credits.** Drama and theatre in Europe from 500 B.C. to 1642. Prerequisite: sophomore standing. Also open to second semester freshmen who have successfully completed Speech 101, 105, 130, 160 or 181, and with consent of instructor.

242. **European Drama and Theatre: From the 17th Century. 3 credits.** A continuation of Speech 241 but may be taken as an independent unit. Drama and theatre in France, England, Germany, Italy and Scandinavia from the 17th Century to the present. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 130, 160, or 181, and with consent of instructor.

250. **Survey of Radio, Television, Film as Mass Media. 3 credits.** A survey and analysis of the history, regulation, scope, social implications and problems of American radio, television and film as mass media. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 130, 160 or 181, and with consent of instructor.

266. **Theory and Practice of Group Discussion. 3 credits.** Study of the structure and dynamics of small group decision-

making. Includes critical and creative problems in group interaction processes. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 160, or 181, and with consent of instructor.

343. **Continental Drama—Late Nineteenth Century. 3 credits.** A study of the development of modern realistic drama, its nature, trends and impact, through the plays of Buchner, Ibsen, Zola, Strindberg, Chekhov, Hauptmann and others. Prerequisite: sophomore standing.

344. **Continental Drama—Twentieth Century. 3 credits.** The development of realism and expressionism in the plays and dramatic theory of Wedekind, Pirandello, Anouilh, Nietzsche, Ionesco and Brecht. Prerequisite: sophomore standing.

464. **Theory and Practice of Persuasion. 3 credits.** Consideration of principles, processes and methods of persuasion with practice in the preparation and delivery of various types of persuasive speeches; includes critical and creative problems in both oral and written forms. Prerequisite: sophomore standing. Open also to second semester freshmen who have successfully completed Speech 101, 105, 160 or 181, and with consent of instructor.

Courses in which the Speech Proficiency Requirements for the University Teaching Certificate may be met are: 101, 230, 232, 266, 464. Also 130 at certain campuses.

University Forum • 943

101. **University Forum. 1 credit.** A lecture-discussion course designed to introduce students to current problems and significant issues. Open to freshmen and sophomores. May be taken twice for a total of two credits.

Zoology • 970

The decisions eventually to be made by students as private persons, family members, husbandmen of the environment, citizens of the city, state or world . . . will benefit from an understanding of living things at all levels of biological organization. The increase of such understanding is one of the main goals of this department. A second goal is the preparation of students for further study in the biological and related sciences. The introduction of the techniques of science, the major fundamental concepts and the presentation of selected examples of the body of knowledge

illustrating them, are the tasks of the staff of scientist-teachers.

101. Animal Biology. 5 credits. General biological principles — structure and function of cells, histology, embryology, heredity and evolution; survey of the animal kingdom; and structure and function of the vertebrate body.

125. General Zoology—TV. 5 credits. Selected areas of biology treated in depth. Lecture-demonstrations by means of television, laboratory taught by audio tutorial method.

160. Heredity (see Botany 160 and Genetics 160). 3 credits. A general course in genetics designed especially for students not specializing in science; principles of heredity with applications to plant, animal and human inheritance; current advances in genetics and their bearing on the life sciences; lecture, demonstration and discussion. Prerequisites: An elementary biology course and sophomore standing are recommended.

170. Human Anatomy and Physiology. 3 credits. Anatomy and physiology of the human body. Demonstration and discussion section designated to emphasize anatomy and basic physiological principles; three hours lecture (given as Physiology 762-104), one hour demonstration and discussion. Prerequisite: General chemistry and biology or general zoology are recommended. Does not carry credit toward zoology major.

300. General Invertebrate Zoology. 3 credits. Structure, function, classification and life histories of the major groups of invertebrates. Prerequisites: introductory course in zoology and sophomore standing.

515. Conservation of Aquatic Resources—Limnology. 2 credits. General limnology; study of lake and stream communities and their conservation. Prerequisite: introductory course in zoology or botany.

PROGRAMS OF STUDY AT THE UNIVERSITY OF WISCONSIN'S DEGREE-GRANTING CAMPUSES

The University of Wisconsin is a university in the truest sense of the word, offering courses in almost every field of knowledge. A university is made up of several individual schools and colleges. The University of Wisconsin has four campuses which grant degrees; each of those campuses has more than one school or college. The campuses are Green Bay, Madison, Milwaukee and Parkside. A wide choice of courses and majors is offered at each of the four campuses.

This section of the catalog is designed to give you an introduction to the campuses and a brief summary of the programs offered. You are urged to consult the appropriate campus catalogs and timetables for a complete explanation of program content and requirements.

Definitions Before you begin reading about the various programs available, study the definitions below. They are provided to help you understand the material in this section.

Course A specific subject such as English 101-Freshman English.

Humanities Specific courses which meet the humanities requirements for a degree. The specific courses and course numbers for a degree may vary from one school to the next. Examples of such courses are Survey of English Literature and Music Literature.

Major An emphasis on a particular area of study within a program, such as a major in English in the College of Letters and Science, or a major in accounting in the School of Business.

Natural Sciences Specific courses which meet the natural sciences requirement for a degree. The specific courses acceptable under this definition may vary from one school to the next. Examples are General Botany and Physical Geography.

School and College The words differ in meaning only in a technical way, and refer to a division of The University of Wisconsin such as the School of Education, College of Letters and Science, College of Engineering, etc.

Social Studies Specific courses which meet the social studies requirement for a degree. The specific courses acceptable under this definition may vary from one school to the next. Examples are Principles of Economics and Economic Geography.

The University of Wisconsin - Green Bay

With a curriculum based on two fundamental ideas—an emphasis on man and his environment and the concept of "communiversity," a true working relationship between university and community—The University of Wisconsin-Green Bay is one of the first universities in the nation to focus on what has been called the most urgent task of the present decade: saving the environment for the future generations of man.

Students at Green Bay and freshman-sophomore campuses at Manitowoc, Marinette, and Menasha (Fox Valley) study under a "4-1-4" calendar — two four-month semesters separated by a January "practicum" period for intensive study and field work projects.

In 1970-71 about 3000 students will attend classes on the 600-acre campus located on a wooded bluff above the waters of Green Bay. The campus, which opened in 1969, consists of three major buildings: Laboratory Sciences, Environmental Sciences and Instructional Resources, all designed and equipped for effective multi-media learning. A fourth building, the Library-Learning Center, is slated for completion by fall, 1971. The Shorewood Club, overlooking the soccer field and a golf course on the University site, houses a dining facility as well as providing the focus for after-hours social life of students and faculty.

Adjoining the campus is the Ecumenical Center, an interfaith project organized and supported by local churches, and a conference-workshop center used by small groups for classes and seminars. Student apartments newly constructed by a private developer also border on University grounds.

The campus, only a short drive from downtown Green Bay, is closely linked with the community through the visits of guest lecturers from business, industry, and the professions; volunteer work by students in community agencies; and off-campus student projects and jobs. Community educational and cultural resources supplementing campus classes, lectures, concerts, films, and drama programs include the central library for Brown County, the Neville Public Museum, the National Railroad Museum, the Green Bay Symphony Orchestra and three community theater groups.

An adventurous academic program, a lively campus, a progressive community — at UWGB these ingredients blend comfortably into an educational experience geared to the needs of the contemporary student.

Academic Organization

Programs offered at The University of Wisconsin-Green Bay have been developed from a central academic focus—that of ecology, or the study of man in relation to his environment. Because this focus is unique among American colleges and universities, the organization of UWGB differs from that of more traditional institutions. College names reflect environmental "themes" rather than groupings of academic disciplines or fields of study. In place of the usual designations — such as College of Letters and Science, School of Business, School of Fine Arts, for example — UWGB is organized into four colleges, each of which emphasizes one aspect of the total human environment.

The College of Environmental Sciences is concerned with problems and challenges of the natural or physical environment. The College of Community Sciences focuses on problems of the social environment, or community. In the College of Human Biology attention is centered on man's ability to adapt to the natural and social environment. The College of Creative Communication emphasizes human identity — how an individual finds and asserts his identity through creativity and communication. A fifth unit of the University — the School of Professional Studies — offers professional applications of work taken in the four colleges.

Academic Plan

Each student's program is founded on the study of a broad environmental problem rather than a single field of interest. Thus in addition to selecting a disciplinary **major,** such as chemistry, political science, music or biology, the UWGB student selects an interdisciplinary **concentration** that combines several disciplines and provides him with a kind of inclusive background he needs to study and solve today's complex problems.

For example, the student majoring in chemistry alone cannot begin to cope with the problems of pollution—of our air, our water or our land. He also needs a solid background in physics, biology, geology, mathematics, the whole area of earth sciences. At UWGB the student will get this kind of background by selecting a concentration in environmental control.

Similarly, the student interested in studying the problems of the cities needs knowledge of a number of disciplines, including anthropology, economics, geography, political science, psychology and sociology. He will get this cross-disciplinary background through a concentration in urban analysis.

The University has developed 11 such concentrations, giv-

ing the student a wide choice of interdisciplinary studies.

Disciplinary programs, called **options,** are also a part of the academic plan. Basically they complement the concentrations by providing a narrower focus on a specific field. For example, the student who wishes to study the chemical aspects of pollution might select a chemistry option to complement his environmental control concentration. And the student interested specifically in the economic problems of cities could combine his concentration in urban analysis with an economics option.

Programs with a professional focus, called **collaterals,** are offered for those students interested in professional applications of work taken in one or more of the theme colleges. Also available are preprofessional programs leading to graduate study and careers in such areas as law, engineering and medicine.

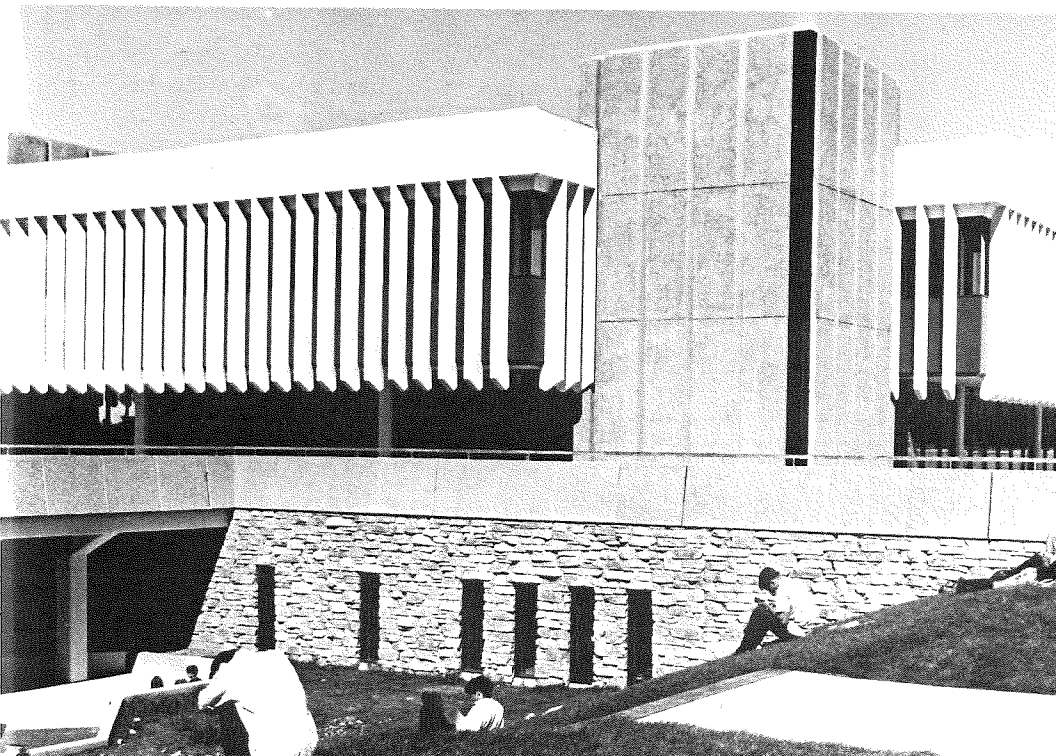
Degrees and Requirements

The University of Wisconsin-Green Bay offers the Bachelor of Arts or Bachelor of Science degree in five areas: Environmental Sciences, Community Sciences, Human Biology, Creative Communication and Administration. For graduation, 124 semester hours are required. A semester's minimum load for a full-time student is 12 credits; the maximum load is 18 credits, although qualified students may submit a petition for permission to take a heavier load. A normal student load is 15 or 16 credits.

All-University Requirements

1. **The Concentration**—Each student must select a concentration, as defined in an earlier paragraph. A concentration requires 30 credits at the junior-senior level. A student may also select an option or a professional collateral. In a concentration-option combination, normally 36 credits are required at the 300 and 400 (junior and senior) course levels, with 24 of the 36 chosen to relate the concentration to the option.

2. **Liberal Education Seminars**—Every student takes a four-year series of Liberal Education Seminars, six credit hours each year, through which he (a) as a freshman examines his beliefs and values and receives an introduction to the ecological viewpoint; (b) as a sophomore studies an environmental problem in an off-campus setting in the Northern Great Lakes region; (c) as a junior studies a problem related to his concentration in an "other culture" comparison, either in the United States or abroad; (d) as a senior integrates what he has learned with his beliefs, values and personal commitment to problem solving.



3. **Distribution Subjects** — In order to encourage as much breadth as possible in the undergraduate experience, the University requires each student to take at least five or six hours of work in each of the theme colleges.

4. **Tool Subjects** — Skill courses — foreign language, data processing, mathematics, studio courses in the visual or performing arts—are required to familiarize students with different forms of communication and analysis. However, a student may write off any or all of the tool requirements by demonstrating his competence in the subject area or areas. If a tool course is not in the student's area of concentration, it may be taken on a pass-fail basis.

Residence Requirements

In order to graduate from The University of Wisconsin-Green Bay, at least one year of residence (31 credits) is required in the junior and senior year. A student must take at least half of the advanced work in his concentration or concentration-option in residence, and he must take at least two years (four semesters) of the Liberal Education Seminars. Provided they are UWGB-administered, all courses count toward residence whether taken at night, during the summer, during the January Special Studies Period or during the two regular semesters.

Requirements for Transfer Students

A student transferring to UWGB as an advanced freshman must meet all the requirements of the University and his theme college. A student transferring as a sophomore or junior must meet all requirements except the year or years of the Liberal Education Seminar he has missed. Such a student will normally be given credit for meeting the distribution and tool subject requirements if he has taken courses that, although not equivalent, meet the spirit of the requirement.

Courses of Study at the University of Wisconsin-Green Bay

Concentrations

College of Environmental Sciences
Ecosystem Analysis
Environmental Control

College of Community Sciences
Modernization Processes
Regional Analysis
Urban Analysis

College of Human Biology
Growth and Development
Human Adaptability
Population Dynamics
*Nutritional Sciences

College of Creative Communication
Analysis-Synthesis
Communication-Action

Options

Administration (business administration, public administration)
Anthropology
Biology (botany, ecology, entomology, microbiology, physiology, zoology)
Chemistry
Communication Arts and Sciences
Earth Sciences
Economics
Geography
History
Literature and Language (English-American, French, German and Spanish)
Mathematics
Performing Arts (dance, drama, music)
Philosophy
Physics
Political Science
Psychology
Sociology
Visual Arts

Professional Applications (Collaterals)

Education (leading to teacher certification at the early childhood, elementary and secondary levels)
Business Administration
Public Administration
*Mass Communications
Leisure Sciences
Social Services

*awaiting CCHE approval

Preprofessional Programs

Nursing
Engineering
Law
Medicine
Dentistry

Other preprofessional programs are also available.

Bulletins and Catalogs

For more information about:	Write to: (Green Bay 54305)
Admissions, Financial Aids, Housing	1567 Deckner Avenue
Honors Program, Summer Sessions	120 S. University Circle Drive
Counseling (Student Development Center)	120 S. University Circle Drive
Catalogs, general information, campus visits (Office of High School Relations)	120 S. University Circle Drive

The University of Wisconsin-Madison

The oldest of The University of Wisconsin campuses, Madison is also the largest, both in enrollment and size. The campus, founded in 1849, covers some 560 acres of wooded hills overlooking Lake Mendota, one mile west of the state capitol. Other University property includes a beautiful 1217-acre arboretum in Madison.

A major characteristic of the campus is growth; construction sites dot the campus as the University continues to meet the expanding needs of its student population, which last year totaled over 35,500. Among the buildings under construction are a student union to serve the south campus, an undergraduate library and a communication arts building, which will house the journalism, library science and speech departments.

Libraries are one of the Madison campus' most important resources. Students have access to 1.3 million volumes at the Memorial Library and an additional 1.4 million volumes in 19 other libraries located in the various schools and colleges on campus.

Some 150 undergraduate majors are offered in the three colleges (Agricultural and Life Sciences, Engineering, Letters and Science) and five schools (Business, Education, Family Resources and Consumer Sciences, Nursing, Pharmacy). In addition, the Madison campus has the largest concentration of graduate, professional and research programs in the state.

The Madison campus provides its students with a variety of services and financial aids. A pioneer program, the 5-Year Tutorial and Financial Assistance Program, makes educational opportunities available to students from minority and poverty backgrounds. Other assistance for university students comes from Student Financial Aids, the University Counseling Center, Career Advising and Placement Services, University Health Service and Student Housing.

Madison campus students live in a variety of accommodations: university residence halls, sororities and fraternities, scholarship co-op houses, private dormitories and off-campus rooming houses or apartments. In their free time they can attend concerts, special lectures, recitals, movies, plays and social events sponsored by the University, the Wisconsin Union and the many clubs and organizations operating on campus.

The University of Wisconsin-Madison — a large, diverse campus full of opportunities for education, involvement, growth and service.

College of Letters and Science

The College of Letters and Science at Madison requires students to take a number of basic courses to assure a well-rounded education in the liberal arts. In addition, as a student in this college, you will be expected to select one area of specialization, or a major. The majors available at the Madison campus are listed on p. 136 of this catalog.

Requirements for the Bachelor of Arts degree in the College of Letters and Science are shown on the Requirements Work Sheet. You should try to meet most of the requirements under 1, 2 and 3 during your freshman and sophomore years.

You may receive a Bachelor of Science degree, if you prefer, by completing the B.A. degree requirements and earning 60 or more college credits in mathematics and natural sciences.

Requirements Work Sheet for Letters and Science Degree B.A. General Degree (Optional B.S. General Degree)

	(1)*	(2)*	(3)*
1. Meet requirements A., B., and C. in this section			
A. English Composition: English 101 exemption.	-----	-----	-----
B. Intermediate Mathematics: Three years high school math (algebra, geometry and/or trigonometry); or two years high school math (alg. & geom.) and one semester of college algebra (Math 101); or two years high school math (alg. & geom.) and one semester of college logic (Philosophy 211)	-----	-----	-----
C. Foreign Language: (See Note 2 under explanatory notes) 14 credits in one foreign language; or 16 credits in two languages only when two years of high school Latin and eight credits of any other language are offered	-----	-----	-----
VERY IMPORTANT. In Section 1., all credits of university work beyond a total of 14 will NOT count toward graduation, but will be recorded and may result in graduation with more than 120 credits.			
2. Meet either requirements A. or B. in this section.			
A. Foreign language: 24 crs. in one or 28 crs. in two foreign languages, including foreign language credits used for 1-C above. (See Note 3 under explanatory notes)			

Language: .....; Crs. from 1-C above ..... ----- ----- -----

Additional crs. ..... ----- ----- -----

B. Mathematics: A year of college level calculus (Math 221-222) or equivalent ----- ----- -----

3. Meet requirements A., B., and C. in this section.
(See Note 5 under explanatory notes).

A. Humanities: 12 credits
Must include 6 crs. of any combination of English or American literature. Comparative Literature 207, 208, and/or literature courses beyond the intermediate level in foreign languages (for example, the 221-222 series.)
Not more than 6 crs. of any combination of English, American, or Comparative Literature may be counted toward the 12 credit Humanities requirement.
Humanities courses: ----- ----- -----

B. Social Studies: 12 credits
Social Studies courses. ----- ----- -----

C. Natural Sciences: 12 credits
If no unit of high school chemistry or physics, a college semester of either is required.
Natural Science courses: ..... ----- ----- -----

4. Major Study: Credits for 1., 2. and 3. may also apply toward the major but each degree credit counts only once toward total degree credits.
Credits from above: .....;
Other major courses: ..... ----- ----- -----

5. Electives: All degree credits not listed above.

Total Degree Credits: 120 (incl. not more than 14 from 1. above). ----- ----- -----

*(1) Enter high school achievement; *(2) Enter college credits earned; *(3) Enter credits to be completed.

Explanatory Notes for Requirements Work Sheet

1. You can meet requirements in section 1 in whole or in part by high school courses, by attainment examinations or both. If you take little or no foreign language or mathematics before college, you will need more than 120 credits to graduate. For example, you could take 3 credits of col-

lege logic (Philosophy 211) and 14 credits of foreign language in college to meet the requirements of this section. Only 14 of these 17 credits, however, would count toward the total of 120 required credits.

2. All students wishing a degree in Letters and Science (BA or BS) must satisfy the minimum requirement in foreign language (1-C from the worksheet). Foreign language credits in 1-C and 2-A may include both high school and college work. One unit (one year) of high school foreign language is equivalent to four course credits. You may also meet these requirements by attainment examinations. See the Madison campus Letters and Science catalog for an explanation of attainment examinations; they are not the same as placement examinations. Foreign language courses taken in high school count toward degree requirements, but do not count toward the total number of credits required for graduation.

If you took a foreign language in high school and, for example, have two high school units, and do not want to take more work in that same language in college, you may take 14 credits of a new language to satisfy Section 1 requirements. For Section 2 requirements, you may then count the high school units as part of the "28 credits in two languages."

If as a result of a placement examination for the recommendation of the department, you are asked to repeat a foreign language course, you may receive one semester's credit for repeated work. This provision is effective for students who enroll for the first time on any campus of the University in September, 1967, or later, for the College of Letters and Science on the Madison campus. Please see **L & S Guidelines** (Madison campus) for a full explanation.

3. In section 2, you are required to continue with either foreign language or mathematics.

4. Not more than 10 credits from any one department may be counted in section 3. No course can be counted toward more than one sub-group. Courses acceptable toward satisfaction are identified as humanities, social studies or natural sciences in the current Madison timetable each term. All courses offered in a department do not necessarily meet any requirement of this section.

5. At least 100 credits of the total number presented for the B.A. or B.S. degree (General Course) must be in Letters and Science subjects. Credits not to be included in this 100-credit minimum are those earned in agriculture, air science, business, education (including art, art education

and physical education), engineering, home economics, law, library science, medicine, military science, music, naval science, nursing and pharmacy. Credits in addition to the 100 may include up to 10 credits in any one of these departments, schools or colleges, except in music where the maximum is 20 credits, including up to 6 credits in orchestra, chorus and band, and except in air science where the maximum is 15 credits. See the current Madison timetable for details.

Center System Courses Which Fall Into the Categories of Humanities, Social Studies, Natural Science

The following are the courses which are listed in this catalog that satisfy the requirements of Section 3. The Madison timetable should be consulted for a complete current listing of all courses offered each term in each department in Letters and Science. The course numbers used by the Center System are not completely identical with course numbers used at Madison. If you have any questions, check the course titles and then consult with a student affairs staff member at your campus.

Humanities

English: 200, 205, 209, 211, 251, 253, 255
French: 221, 222
German: 221, 222
Music: 201, 202, 211, 212
Philosophy: 226, 253, 258, 520
Spanish: 221, 222
Speech: 130, 160, 241, 242, 343, 344

Social Studies

Anthropology: 100, 200, 202, 204
Economics: 101, 103, 104, 330
Geography: 101, 110, 115, 350, 510, 514, 521
History: 101, 102, 119, 120, 127, 255, 355, 390
Journalism: 201
Philosophy: 101, 102, 103, 241, 254
Political Science: all courses listed
Psychology: 201, 202, 205, 210, 507, 530, 560
Sociology: 101, 120, 125, 130, 134, 530
Speech: 250

Natural Science

Anthropology: 105
Astronomy: 100, 200
Bacteriology: 101
Biochemistry: 201
Botany: 100, 110, 120, 130, 151, 152, 160, 200, 240, 400
Chemistry: all courses
Geology: 100, 101, 102
Geography: 120, 123, 124, 125
Physics: all courses
Physiology: 101, 104
Psychology: 225
Zoology: all courses

Majors

Following is a list of majors available in the College of Letters and Science on the Madison campus. The major is selected at the beginning of the junior year. A booklet entitled **Majors** is published by the College of Letters and Science and will be helpful to you in deciding on a major; the regular bulletin of the College of Letters and Science should also be consulted. Both are available at the student affairs office of your campus.

A total of 80 credits must be earned outside of one of the majors listed below.

African Languages and Literature
American Institutions
Anthropology
Arabic
Art History
Asian Studies
Astronomy-Physics
Bacteriology
Ibero-American Studies
Indian Studies
International Relations
Italian
Japanese
Journalism
Latin
Linguistics
Mathematics

Biochemistry
Biological Aspects of Conservation
Botany
Chemistry
Chinese
Classics
Communicative Disorders
Comparative Literature
Computational Methods and Statistics
Computer Sciences
Economics
English
French
French Area Studies
Geography
Geology
German
Greek
Hebrew Studies
History
History of Culture
History of Science
Humanities
Medical Microbiology
Medical Science (Pre-Med)
Meteorology
Molecular Biology
Music
Music—Applied
Music—History & Theory
Music—School Music
Philosophy
Physics
Polish
Political Science
Portuguese
Psychology
Russian
Scandinavian Studies
Social Welfare
Sociology
Spanish
Speech
Statistics
Zoology

Special Letters and Science Programs

The College of Letters and Science offers several special programs. The degree requirements of these programs differ somewhat from the requirements for the general B.A. degree in the College of Letters and Science. You may begin work at your campus in the special programs described below.

Applied Mathematics and Engineering Physics. This special program gives integrated basic training in related areas of mathematics, physics and engineering science. It prepares you for entry into the field of industrial research and provides a foundation for graduate work in mathematics, mechanics, physics and some fields of engineering. A strong high school background in mathematics is essential before entering this program.

During your first two years of college, you should take engineering graphics, physics, chemistry, mathematics and foreign language. The foreign language requirement, not as extensive as that for the general B.A. degree, requires a minimum of 8 college credits or two years in high school of German, Russian, French or Italian. If you plan to do

graduate work, you should have a reading knowledge in at least two of these languages. A close advising contact with the AMP committee is required, after you are on the Madison campus.

Chemistry Course. If you are interested in chemistry, you may follow the regular requirements for the B.A. degree with a major in chemistry, or you may enroll in the special chemistry course. The latter offers a broader basic training in chemistry.

The degree requirements for the chemistry course include: (1) a total of 130 credits for graduation; (2) Chemistry 107 taken concurrently with Chemistry 104; (3) Mathematics 223; (4) The equivalent of German 204 or Russian 202; (5) Physics 201 or 202; (6) English 201.

Admission to the junior year requires a grade-point average of 2.5 for the first two years' work in all chemistry, mathematics and physics courses.

If you plan to do graduate work in chemistry, a reading knowledge of a second language (French, German or Russian) is usually required.

Journalism. This program covers the broad field of mass communications and aims to give you a broad cultural base as well as technical competence in your profession.

In addition to taking basic required courses in news writing, reporting and editing, you may elect work in such fields as magazine writing, advertising, radio and television, public relations, community press, communications media and public opinion, photo journalism, business and industrial publications editing, and the development of the press here and abroad.

On the Madison campus, a total of 124 credits is required for graduation, including 30 credits in journalism and at least 40 of the remainder in social sciences or English. If possible, you should take Journalism 201, 203 and 204 at the Center System campus. You should also complete the following requirements during your freshman and sophomore years: any three of the following courses or their equivalents, including at least one from each of three departments (one of which must be economics or political science):

Anthropology 100; Economics 101 or 103; Geography 101; Philosophy 101; Political Science 101 or 106; Psychology 201; Sociology 101, 130 or 125. Before or soon after entering the University, you should become a competent typist.

You must be a junior and have a minimum grade-point

average of 2.3 in all work carried to enter the School of Journalism on the Madison campus. After admission to the School of Journalism, you must maintain a grade-point average of not less than 2.5 in journalism and advertising classes, and not less than 2.0 in other classes. If you fail to maintain the grade-point requirements, you will be advised to withdraw.

Medical Technology. This special four-year program, leading to the B.S. degree, emphasizes a broad background in the physical and biological sciences. Clinical subjects are taught in the senior year. The course is fully accredited by the Council on Medical Education and Hospitals of the American Medical Association. Upon graduation you are eligible to apply for board certification as medical technologist (ASCP).

Course requirements which should be completed in the first two years include: (1) foreign language — two years of one foreign language in high school or two semesters in college, or a combination; (2) Chemistry 102 or 103, 104, 221, 341 and 342; (3) Freshman English, 6 credits of English literature and 3 credits of English 201 or 203; (4) Mathematics 101 or 112, if you had less than 3 years of high school mathematics; (5) one year of physics; (6) Physiology 101 or 104; (7) Zoology 101 and 350 (Zoology 350 is offered during Summer Sessions on the Madison campus).

You must accumulate 90 credits with a grade-point average of 2.3 for admission to the senior year.

Music. The University offers three music programs: (1) the applied music major which prepares you for musical performance and studio teaching; (2) the music history and theory major, which prepares you for specialization in composition and arranging, or in music history and literature; and (3) the music education major, in which you register jointly in the School of Music and the School of Education. This program trains you for teaching music in the schools with emphasis in either the instrumental or vocal field.

The School of Music has more demands on its facilities and staff than it can meet. As a result, an audition procedure has been established for a student to qualify for studying music on the Madison campus. Students who plan to register in any of the music programs should consult the student affairs staff or the music department at the Center campus early during the semester preceding transfer.

Each music program is described fully in the Madison cam-

pus catalog. In general, you are expected to be proficient in music before entering the University. If you are majoring in applied music, you must take Freshman English, 6 credits of United States history and an additional 6 credits in either history or English. If you are majoring in music history and theory, you must take Freshman English and 6 credits in United States history. Both majors require work in foreign language with a minimum of 14 credits or its equivalent in one of these languages—French, German, Italian or Spanish. Music education majors are required to take a minimum of 40 credits in liberal studies to include 12 credits of English, 6 credits of science, 6 credits of social studies and either the intermediate mathematics or intermediate foreign language requirements as stated in Section 1 of the Requirements Work Sheet (p.132).

The Bachelor of Music degree requires a minimum of 130 credits, an overall grade-point average of 2.0 and a 2.5

average in music courses. The program in music education requires 130 credits and 325 grade-points for graduation. A grade-point average of 2.5 is necessary for admission to the School of Education.

Physical Therapy. The four-year special program in physical therapy, fully accredited by the Council on Medical Education of the American Medical Association, is administered jointly by the College of Letters and Science and the Medical School.

Academic work is followed by three months of clinical work in approved hospitals under the supervision of the faculty; a certificate is given by the Medical School at its completion. Although no academic credit is given for the work done during the summer months, it is required for completion of the program.

Enrollment in the course in the junior and senior year is limited by space and faculty.

A total of 124 credits is required for graduation. In your first two years you should meet most of the following course requirements: (1) English—either 12 credits of English, or 6 credits of English and 6 credits of history (either choice must include Freshman English); (2) either (a) foreign language — the equivalent of 14 credits in one foreign language, or (b) 14 credits of social science; (3) psychology—a total of 10 credits (Psychology 201 and 507 may be taken at the Center System campus); (4) science — a total of 43 credits, including courses in chemistry, physics and zoology; (5) speech — 6 credits. You are expected to maintain at least a 2.5 overall grade-point average.

College of Agricultural and Life Sciences

The College of Agricultural and Life Sciences offers a bachelor's degree in five broad curriculum options: natural science, agricultural business and industry, social science, agricultural production and technology, and natural resources. Graduation from the College of Agricultural and Life Sciences prepares you for a career in research, business, industry, education, technical and public services, conservation and recreation, communication and production farming. Nearly 60 different specific majors are available to undergraduates in the College through its 22 instructional departments under the five different curriculum options.

The College of Agricultural and Life Sciences requires at least 124 credits and 248 grade points for a degree. Regardless of the field in which you specialize, you will be

expected to meet the following minimum requirements generally within your first two years:

1. Introductory course in chemistry
2. Economics 101 or 103
3. English 101 and 102 unless excused by examination
4. A minimum of two to three credits in a written or spoken communication course such as Speech 101, Journalism 203 or English 201

Students in the College of Agricultural and Life Sciences may take courses on a pass-fail or credit-no-credit basis during the junior and senior years only.

Details about requirements for majors under each of the college curriculum options are available from the advisor to students at the Center campus or from Dean G. W. Sledge, 116 Agricultural Hall, College of Agricultural and Life Sciences, Madison, Wisconsin 53706. Students are encouraged to visit or correspond with this office to determine the most opportune time for transfer in order to complete degree requirements on schedule. Representatives of the College regularly visit Center campuses to consult with students enrolled in Ag-Life Science majors.

Undergraduate Majors and Programs Available in the College of Agricultural and Life Sciences, Madison

Department Specializations	Business & Industry	Natural Resources	Natural Science	Production & Technology	Social Science
Agricultural Economics	X	X		X	X
Agricultural Economics (Agr. Bus. Management)	X				
Agricultural Engineering (Professional)	X				
Agricultural Engineering (Equipment Merchandising, Power & Machinery, Structures, Building, Construction, Soil & Water)	X				
Agricultural & Extension Education	X	X		X	X
Agricultural Journalism	X	X	X	X	X
Agronomy	X	X	X	X	X
Bacteriology		X	X		
Biochemistry			X		
Dairy Science	X		X	X	
Entomology				X	
Food Science (Consumer Service in Foods, Food Administration, Food Chemistry, Food Science)	X		X	X	
Forestry (Forest Science)		X			
Genetics		X	X		
Horticulture	X		X	X	
Landscape Architecture	X	X			
Meat & Animal Science	X		X	X	
Nutritional Sciences (Dietetics)			X		X
Plant Pathology			X		
Poultry Science	X		X	X	
Rural Sociology		X			X
Soil Science	X	X	X	X	
Wildlife Ecology		X	X		
Veterinary Science	Pre-Vet, Grad. Study & Res.				
Conservation Major	Interdisciplinary				
Agricultural and Naval Science	Interdisciplinary				
Recreation Major	Interdisciplinary				
Pre-Theology Program	Interdisciplinary				

Also offered is a 15-week farm and industry short course and a two-year middle course.

School of Business

The Bachelor of Business Administration (BBA) degree curriculum is based upon a broad liberal arts program combined with courses in business and economics. Students with a grade-point average of 2.3 or better may enter the School of Business at the beginning of the junior year (58 credits or more) if they have completed the major portion (especially the mathematics, accounting and economics) of the following prebusiness course requirements:

	Credits
1. Communications Eng. 102, a literature course, a speech course and Bus. 218 on Madison campus (plus Eng. 101 if needed)	11-12
2. Mathematics Math. 101-112-113 (unless waived by placement scores) plus two semesters college calculus or one semester college calculus and Math 107	10-15
3. Natural Science (of 8 cr. required, 4 must be with lab)	8
4. Computer Science (132 or 302 or higher level computer course)	3
5. Business 100 Business in Society (on Madison campus)	2
6. Business 200-201 Introductory and Intermediate Accounting	6
7. Economics 103-104 Principles of Economics	6-8
8. Humanities* (6 cr.) and Social Studies* (6 cr.)	12

These are minimum credits and are usually completed freshman-sophomore years but may be completed junior-senior years.

Foreign language is not required for business degree; students who wish to take foreign languages as elective credits are encouraged to do so.

*As defined by the Madison campus College of Letters and Science.

Typical Program for Prebusiness Students During First Two Years:

First-Second Semesters	Third Semester	Fourth Semester
Eng. Composition & Lit.	Mathematics Bus. 200 Econ. 103	Mathematics (if not completed) Bus. 201

Mathematics	Humanities or	Econ. 104
Natural Science	Social Studies	Computer Science
Humanities or		Humanities or
Soc. St.		Soc. St.
Physical Education		
(one sem.)		

Suggested Program for Junior—First Semester at Madison:

(a) Required courses from above not completed—especially mathematics, accounting, economics and computer science

(b) Bus. 202 (assuming Bus. 201 completed)

(c) First course in your major (plus second course if shown):

If Accounting major: Bus. 202 **and** Bus. 300
If Actuarial Science major: Bus. 540 and math. and Stat. 313
If Finance major: Econ. 330 and Bus. 331
If Information Systems major: Bus. 620 (if Comp. Sci. completed)
If Marketing major: Bus. 440
If Quantitative Analysis-Operations Research: Stat. 313, (see bulletin)
If Public Utilities-Transportation: Bus. 500
If Real Estate-Urban Land Economics: Bus. 520
If Risk Management-Insurance: Bus. 540

(d) At least one course outside business-economics for diversity.

(e) If additional courses needed, see required junior level courses described in 1970-72 bulletin from School of Business.

Also see 1970-72 School of Business bulletin for description of junior-senior curriculum. Students may choose in their junior year from among the majors listed in part (c) above. Also, there are combined programs offered in business-agriculture, business-engineering, business-teacher education, construction administration, international business, law enforcement, ROTC — all described in School of Business bulletin.

Note: A total of 128 credits required for BBA degree must include 64 cr. outside bus. econ., 52 cr. in bus. econ., remaining 12 cr. in/out bus. econ.

School of Education

The School of Education offers a variety of progams. You may choose to teach at the elementary level or to teach such academic subjects as English, history, chemistry or special fields such as art, agriculture, behavioral disabili-

ties, physical education, home economics, journalism, kindergarten, music, speech correction or business. In addition to providing training for elementary and secondary teachers, the School of Education also includes non-teaching programs in applied art, occupational therapy, recreation leadership and dance.

Admission to and graduation from all programs which lead to a teacher's certificate or a degree in occupational therapy require a 2.5 cumulative grade-point average. Within the secondary program certain academic areas (English, history, political science and foreign languages) require for certification a 2.75 grade-point average in courses taken in that area. Certain non-teaching majors within the School of Education require a 2.0 for admission and graduation.

In addition to meeting the grade-point requirements, students going into the elementary program must have attained sophomore standing (24 credits) and those going into the secondary program must have attained junior standing (58 credits). During the freshman and sophomore years those planning to complete the secondary program will generally follow the basic B.A. degree program in the College of Letters and Science. Those preparing to become elementary teachers will follow the modified B.A. sequence as outlined in the elementary section of the School of Education catalog.

As a sophomore at a two-year campus definitely planning to go into the elementary program at Madison, you may want to choose one or two courses from the following three: Math 115, Art 100, Speech 130 or other creative arts courses as listed in the School of Education catalog.

Students majoring in art or physical education normally take professional courses during their freshman and sophomore years. Please note that some courses applicable to a degree in the School of Education will not count toward degrees in other colleges of the University of Wisconsin-Madison or on other campuses. You will be wise not to select these courses until you are reasonably sure that you want to prepare for teaching and that you will have the necessary grade point required for admission.

All teachers are expected to present evidence of ability to speak well. The School of Education has a proficiency requirement which can be met in one of several ways, typically by enrolling in a speech skills course such as Speech 101, 230 or 232.

The preceding description of School of Education programs

is very general and does not include all programs. If you are at all interested in the education program at the Madison campus, please check the School of Education catalog for additional programs and for specific requirements of each program.

College of Engineering

The engineering program provides opportunity for a thorough education in mathematics, the physical sciences, engineering principles and the application of these fundamentals to problems encountered in engineering practice. After a solid foundation of fundamentals, you may specialize in one of these fields on the Madison campus:

Agricultural Engineering*	Mechanical Engineering
Chemical Engineering	Metallurgical Engineering
Civil Engineering	Mining Engineering
Electrical Engineering	Nuclear Engineering
Industrial Engineering	Engineering Mechanics

If you wish to specialize in aeronautical engineering, you may begin by following the suggested program for engineering mechanics, or civil, electrical or mechanical engineering, depending upon your particular interest in the field, i.e., airframe structures, electrical systems or power plants. Combined courses are available in engineering and business or law or medicine or city planning or construction administration. Students interested in combined programs should plan them with their adviser early in their college careers. A Bachelor of Science degree in engineering can be used for admission to Law or Medical School or a graduate program in the School of Business.

As a freshman in engineering, you will complete the freshman English requirement, Chemistry 102 and 104 (except for mechanical and industrial engineers who need only one semester of college chemistry; they may take either Chemistry 102 or 108) and Mathematics 221 and 222. A thorough high school background in mathematics is essential since Mathematics 221 carries the following prerequisites: two years of algebra; one year of plane geometry; and one year of advanced mathematics. If you do not have sufficient background for Mathematics 221, you may take more elementary courses at the campus, but they will not carry credit toward your degree.

In addition, if you plan to specialize in chemical or nuclear engineering or engineering mechanics, you should take Chemistry 107. If civil, industrial, mechanical or mining engineering or engineering mechanics is your choice, you must take one or two courses in engineering graphics.

During your sophomore year you will take Physics 201 and 202 along with mathematics and engineering mechanics courses. Chemical engineers should take organic chemistry instead of mechanics courses.

Every curriculum in the College of Engineering requires at least 15 credits in liberal studies such as anthropology, history, economics, political science or foreign language. You may take some or all of these courses in your first two years.

Since the requirements, particularly the electives, vary for the different programs in engineering, you should consult the campus adviser to students when planning your complete program.

*Students in this field will register in the College of Agricultural and Life Sciences. The program is administered by that College in cooperation with the College of Engineering.

Cooperative Engineering Education

Cooperative engineering education is an educational program wherein regular periods of campus study (semesters or summer sessions) are alternated with training periods in a cooperating industry. The student benefits from early and planned experiences in engineering work in industry and also obtains a source of income to help carry him through his schooling. Many companies are supporting this program. The requirements for participation are:

1. The student must be completing or have completed his freshman year with a satisfactory grade-point average.

2. The selection of students will be made by the participating companies after suitable interviews.

3. The student's continuation in the program would be dependent upon the maintenance of a satisfactory academic and work record.

4. The student's senior year is to be conducted entirely on campus without an intervening work period.

Students who are interested and desire more detailed information should contact the cooperative engineering education program coordinator.

School of Family Resources and Consumer Science (Formerly Home Economics)

The School of Family Resources and Consumer Sciences offers many areas of professional specialization. The focus of undergraduate programs may be in scientific, educational, aesthetic and/or business areas. The degree of specialization varies with the purpose of the professional emphasis.

All programs are related by the common need for under-

standing the family. Four major areas of family concern are identified to fulfill the purpose of the School for the development of professional workers:

__Physical well-being
__Quality of material environment
__Management of consumer resources
__Development of family potential

Students may choose from the following majors:

Home Economics Education —choice from options in:
High School Teaching
Adult Education
Vocational Education
Education for the Disadvantaged
Extension
General Education (with Certification)

Child Development and Preschool Teaching
Preschool-Kindergarten Teaching (with Certification)
Home Economics Journalism
Family and Consumer Economics
Apparel Design
Interior Design

Related Art—choice from options in:
Costume Art
Crafts Design
Decorative Art-Museum Curator
Textile Design
General Related Art

Retailing
Textiles and Clothing—General Major
Textile Science
General Home Economics Major—Interdepartmental

Foods and Nutrition Areas —Choice of Options in:
Consumer Services in Foods
Dietetics
Food Administration
Nutrition

The following courses may be taken in the freshman and sophomore years to meet requirements regardless of major selected: 6 credits in English literature; Economics 101 or 103*; Psychology 201; a course in Sociology chosen from 101, 120, 125, 130, 134; Chemistry 102 or 108**.

*Economics 103 is recommended for the Family & Consumer Economics major.

**Requirements in Chemistry vary with majors. For some majors, the chemistry requirement is satisfied with high school chemistry.

Students may also elect additional courses from the humanities, the social sciences and the natural sciences, the selections being determined by the selected major. Some majors will require courses in mathematics.

Since no courses are presently offered by the School of

Family Resources and Consumer Sciences at the University Center System campuses, you may wish to transfer to the Madison campus at the end of your freshman year. This will permit a more flexible schedule during the remainder of your college program. If you wish assistance from the UW-Madison in your program planning, contact Mrs. Kathryn Beach, 140 Home Economics Building, The University of Wisconsin, Madison, Wisconsin 53706.

Students wishing foods or nutrition study with a focus on the family should take the majors by matriculation in the School of Family Resources and Consumer Sciences. Students with a preference for a science emphasis may prefer to take this program through the College of Agricultural and Life Sciences.

School of Nursing

The School of Nursing on the Madison campus offers a baccalaureate program in nursing for high school graduates and college students who wish to become nurses and for registered nurses who have graduated from diploma and associate degree programs. All students must apply for admission to the last two years of the program. Application should be made to the School of Nursing at the beginning of the sophomore year.

Please see the School of Nursing bulletin for a list of the courses of the first two years of the program. You are encouraged to consult an adviser at the School of Nursing, 1402 University Avenue, Madison, Wisconsin 53706, early in your freshman year for assistance in program planning.

Occupational Therapy

This four-year program, offered jointly by the Medical School and the School of Education, is followed by a period of 36 weeks of internship in a hospital treatment program. The program qualifies you to evaluate and treat patients, using carefully selected and supervised activities such as manual and creative arts, daily living skills and recreational or industrial activities.

During your freshman and sophomore years, you may take the following courses: (1) Freshman English and 6 credits of literature; (2) Zoology 101; (3) a course in Sociology; (4) Speech 101; (5) Art 131; (6) Physiology 104; (7) Psychology 201; (8) Chemistry 102 or Physics 105.

Please check the Occupational Therapy bulletin for additional courses which may be taken in the first two years.

To continue beyond the sophomore year, you must have an overall grade-point average of 2.5 or better. You must also earn a grade of "C" or better in Occupational Therapy 221,

Preclinical Practice. This course, O.T. 221, is not available at the Center System campuses. As a practical alternative, some hospital experience as a volunteer or nurse's aide would have some value in helping you decide on the feasibility of occupational therapy for you. The practical experience, of course, does not substitute for O.T. 221.

School of Pharmacy

The pharmacy program furnishes a scientific foundation for the pursuit of the profession of pharmacy in all its branches. It prepares you not only to operate a community pharmacy, but also to be a hospital pharmacist, do pharmaceutical research or enter some branch of the government service.

The University's pharmacy program offers the bachelor's degree after completion of five years of work—two years of pre-pharmacy and three years in the School of Pharmacy.

You should take the following courses during your freshman and sophomore years: (1) Freshman English; (2) Chemistry 102, 104, 343, 344, 345; (3) Math through 113; (4) Physics 105 and 106, or another year course in physics; (5) Botany 130 and Zoology 101; (6) Economics 103; and (7) electives to total 60 credits.

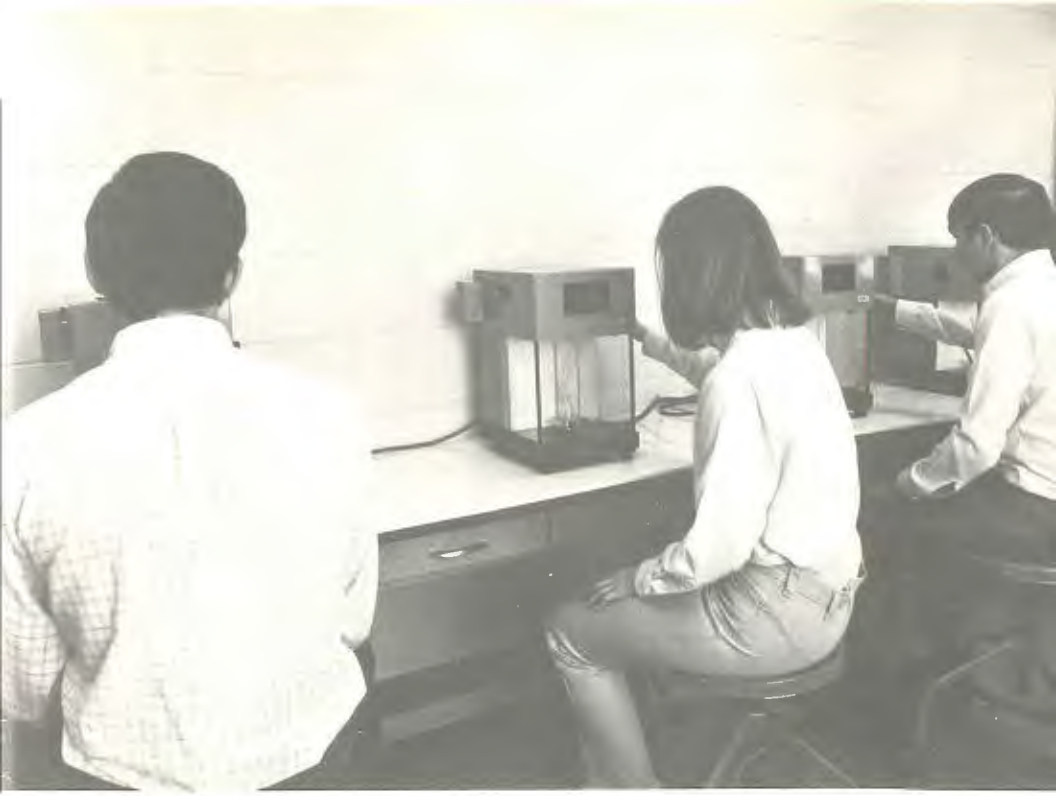
Armed Forces Reserve Officer Programs

A two-year Reserve Officers' Training Corps (ROTC) program is offered to students, particularly transfer students, at the beginning of their junior year. If you qualify for this program, you may obtain a commission in the U.S. Army, Navy, Marine Corps or Air Force by participating for two years on campus provided you attend a basic summer camp or cruise in the summer after your sophomore year.

A ROTC program is conducted on the Madison campus by each of the services and on the Milwaukee campus by the Army. These programs prepare you to enter into the military service of your choice in a leadership capacity as a commissioned officer.

To qualify for enrollment in the two-year program, you must:

1. Apply no later than March 1 of your sophomore year to a college or university offering such a program.
2. Apply for admission to the ROTC program.
3. Satisfactorily complete written aptitude examinations.
4. Satisfactorily pass the medical examination.
5. Be interviewed and recommended by an officer of the service of the ROTC in which enrollment is desired.
6. Attend a basic summer camp. (Information as to time and place will be given by the officer conducting the interview mentioned in (5) above.)



Advantages you will gain by participating in ROTC:

1. Development of qualities of leadership (organizing, motivating and leading others).

2. Pay of $50 per month for twenty months of the two years in the on-campus ROTC program ($1000) and additional pay for the summer camp(s) training.

Upon entering the advanced ROTC program you must agree to complete the two-year course of study, accept a commission and serve on active duty for the period required by the service of your choice (Army, two years; Navy, three years; and Air Force, four years) followed by the number of years in the ready and standby reserve forces to complete six years total service.

Reserve Officer Training Corps graduates desiring to earn graduate degrees currently may be deferred from active duty following commissioning until the work required for the degree is completed.

Further details about the ROTC programs may be obtained from the departments of military science, naval science or Air Force aerospace studies at The University of Wisconsin-Madison.

Junior Year Abroad Programs

As a UW Center System student, you are eligible to participate in junior year abroad programs in France, Germany, India, Mexico and England. (Future programs in other countries are also being considered.) The French program at the University of Aix-Marseille and the German program at the University of Freiburg are open to all students; the Mexican program at the Institute of Technology in Monterrey is open only to engineering students. The Indian program at New Delhi, Hyderabad and Varanasi is offered to serious students of India from all over the country. The English program is an exchange of undergraduate history majors. Wisconsin students will spend one semester at The University of Warwick and an equal number of British students will take their places at Wisconsin.

Although applications are accepted in mid-winter of the sophomore year for the following junior year, Center System freshmen are encouraged to contact the Office of International Studies and Programs to discuss their eligibility and courses which may be helpful. Basic language skills are best acquired at the high school level so that college years may be devoted to perfecting accents and fluency and gaining additional cultural knowledge. Because competition for the limited number of openings grows keener each year, students with the most preparation and highest overall academic records will receive the greatest consideration.

Essential costs of a junior year abroad do not greatly exceed those of an academic year at Wisconsin. Students in the programs will be eligible to receive the same scholarships or loans normally available. In addition, a limited number of special scholarships are available.

Center students accepted for the program must complete an application for transfer to the Madison campus. All students in the program register and pay fees on the Madison campus.

Additional information on these programs may be obtained from the Office of International Studies and Programs, 6239 Social Science, The University of Wisconsin, Madison, Wisconsin 53706.

Bulletins and Catalogs

The following bulletins are available from the director of students affairs at your Center System campus, or from the University News and Publications Service, 19 Bascom Hall, Madison 53706.

Preview (general information about Madison, Milwaukee, Green Bay, Parkside, the Center System and University Extension)
College of Letters and Science
College of Agricultural and Life Sciences
School of Business (includes the course in Construction Administration)
School of Education (includes art, art education, occupational therapy, physical education, recreational leadership, elementary and secondary education)
College of Engineering
Graduate School (request Social Sciences and Humanities, or Natural Sciences and Engineering)
Graduate School of Business
School of Family Resources and Consumer Sciences
Integrated Liberal Studies
Law School
Library School
Medical School
Medical Technology
Music at Wisconsin
School of Nursing
Occupational and Physical Therapy
School of Pharmacy
School of Social Work

For information and bulletins about Summer Sessions, (Madison), write: Summer Sessions, 602 State Street, Madison, Wisconsin 53706.

The University of Wisconsin-Milwaukee

The University of Wisconsin-Milwaukee exemplifies a recent development in education: the growth of urban universities to meet the needs of the cities. Located in a pleasant residential section of the city, the 90-acre campus is only minutes from downtown Milwaukee. Nearly 19,000 full and part-time students now attend UWM, and enrollment is expected to top the 20,000 mark during the 1970-71 academic year.

Most students attending the Milwaukee campus commute. Until recently UWM had limited dormitory facilities, but a new three-tower dormitory unit, the Carl Sandburg Residence Halls, provides living accommodations for nearly 2,000 students. The glass and concrete towers, 16, 20 and 26 stories tall, dwarf many of the older campus buildings.

Construction continues to alter the face of the Milwaukee campus. On the west side the Science Complex, scheduled for completion in 1970, will house the College of Applied Science and Engineering, mathematics department, Computer Center and the first stage of a science division library. In the east sector work has begun on an addition to the Union and an adjacent two-level underground parking structure.

As UWM physically grows the University is also broadening the scope of its education programs. Milwaukee is the only public educational institution in the state to offer studies leading to a master's degree in architecture; the School of Architecture accepted its first junior-level students in the fall of 1969. In addition, a criminal justice major, primarily for law enforcement and corrections personnel, has been established in the School of Social Welfare.

UWM students can turn to a myriad of activities and events, both on and off campus, to fill their free hours. The city of Milwaukee offers such diversions as museums and art galleries, parks and a zoo, theatre productions and concerts, as well as the many other cultural and social resources of Wisconsin's largest city. On campus the University, the Union and numerous clubs and organizations sponsor film series, special lectures and forums, recitals and concerts, plays and other events to entertain and educate.

The University of Wisconsin-Milwaukee — an urban university fulfilling the needs of today's students.

College of Letters and Science

The College of Letters and Science on the Milwaukee campus offers you an opportunity to obtain a well-rounded education in the liberal arts, and to major in a specific subject.

Requirements for the Bachelor of Arts degree are shown on the Requirements Work Sheet. You should try to meet most of the requirements under 1, 2 and 3 during your freshman and sophomore years. The degree requirements differ in some respects from the requirements on the Madison campus.

You may receive a Bachelor of Science degree rather than a Bachelor of Arts degree by following the B.S. degree requirements and earning 60 or more college credits in mathematics and natural science. A minimum of one year of calculus in college is required for the B.S. degree.

Requirements Work Sheet for Letters and Science Degree B.A. General Degree (Optional B.S. General Degree)

	(1)*	(2)*	(3)*
1. A., B., and C.			
A. Proficiency in English: English 101 and 102 or possible exemption	-----	-----	-----
B. Mathematics:			
Three years high school mathematics (algebra, geometry, and trigonometry); or	-----	-----	-----
Two years high school mathematics (algebra and geometry) and one semester college algebra (Mathematics 112); or	-----	-----	-----
Two years high school mathematics (algebra and geometry) and one semester basic mathematics (Mathematics 108); or	-----	-----	-----
Two years high school mathematics (algebra and geometry) and one semester college logic (Philosophy 211)	-----	-----	-----
C. Foreign Language:			
14 credits in one foreign language; or	-----	-----	-----
16 credits in two foreign languages (only when two years of high school Latin are offered in partial satisfaction)	-----	-----	-----
Total (A., B., and C.) may not be satisfied with more than 14 degree credits.			
2. Either A. or B.			
A. Foreign Language:			
6 credits numbered above 220 in one, or a total of 24 credits in two foreign languages, including foreign language credits used for 1-C above. When two languages are presented, at least 14 credits must be in one language and at least 8 credits in the second language.			
Language: .....; credits from 1-C above .....;	-----	-----	-----

Additional credits	.....	.....	.....
Language: .....; credits from 1-C above .....;			
Additional credits	.....	.....	.....
B. Mathematics:			
Two courses at or above the 200 level e.g., Mathematics 221 and 222	.....	.....	.....
3. A., B., and C.			
A. Humanities:			
12 credits. Must include 6 credits of any combination of sophomore level English or American literature courses, comparative literature 107 and 108, and literature courses beyond the intermediate level in foreign languages.			
Not more than 6 credits of sophomore level English or American literature may be counted toward the 12 credit humanities requirements.			
Humanities courses:	.....	.....	.....
B. Social Sciences:			
15 credits including 6 in history			
Social Science courses:	.....	.....	.....
C. Natural Sciences:			
15 credits including two semesters of laboratory science			
Natural Science courses:	.....	.....	.....
4. Major Study:			
Credits for 1, 2 and 3 may also apply toward the major but each degree credit counts only once toward total degree credits.			
Credits from above .....; other major courses;	.....	.....	.....
5. Electives:			
All degree credits not listed above	.....	.....	.....
Total Degree Credits: 120 (including not more than 14 from 1 above)			

*(1) First Column: enter work in high school or results of attainment examinations.
*(2) Second Column: enter college credits already earned.
*(3) Third Column: enter college credits to be completed.

Explanatory Notes for Requirements Work Sheet

1. You can meet requirements in section 1 in whole or in part by high school courses, by attainment examinations,

or both. Precollege achievement which satisfies requirements in this section will enable you to substitute courses of your own choice for the course requirements in this section, but will not reduce the total number of credits required for the degree. If you take little or no foreign language or mathematics before college, you will need more than 120 credits to graduate. For example, you could take 6 credits of English, 2 credits of mathematics and 14 credits of foreign language in college to meet the requirements of this section. Only 14 of these 22 credits, however, would count toward the total of 120 required credits.

2. You are required to elect English composition (6 credits), unless partially exempt, in your freshman year, and you should meet the mathematics-logic requirements and 6 to 8 credits of the foreign language requirement by the end of your sophomore year.

3. Foreign language credits in 1-C and 2-A may include both high school and college work. One unit (one year) of high school foreign language is equivalent to four course credits. You may also meet these requirements by attainment examinations. If as a result of a placement examination or the recommendation of the department, you are asked to repeat a foreign language course, you may receive credit only for the course immediately below the expected level of placement.

4. In section 2 you are required to continue with either foreign language or mathematics, previous achievement in either determining the additional credits required.

5. Not more than 10 credits from any one department may be counted in section 3. No course can be counted toward more than one sub-group. Courses acceptable toward satisfaction of the requirements in section 3 are identified as humanities, social science or natural science.

The following distribution shows the courses listed in this catalog which fall into the areas of humanities, social science and natural science at UW-Milwaukee. The two Colleges of Letters and Science (Madison and Milwaukee) differ in categorizing these courses. Please see the Milwaukee campus timetable for a complete listing of courses which are acceptable in these categories.

Humanities

English: 200, 205, 209, 211, 251, 253, 255
French: 221, 222
German: 221, 222
Philosophy: 253, 520
Spanish: 221, 222
Speech: 130

Social Science

Anthropology: All courses except 105
Economics: 101, 103, 104
Geography: 101, 110, 115, 350, 510, 514, 521
History: All courses
Journalism: 201
Philosophy: 101, 102, 103, 241
Political Science: All courses
Psychology: 201, 202, 205, 210, 507, 530, 560
Sociology: All courses
Speech: 160

Natural Science

Anthropology: 105
Astronomy: 100, 200
Bacteriology: 101
Biochemistry: 201
Botany: All courses
Chemistry: All courses
Geography: 120, 123, 124, 125
Geology: All courses
Mathematics: All courses except 107 and 115
Philosophy: 211
Physics: All courses
Psychology: 225
Zoology: All courses

Majors The following is a listing of majors in the College of Letters and Science on the Milwaukee campus. Some majors which are offered in the College of Letters and Science in Madison are offered in other schools or colleges at Milwaukee; as just one example, a music major at Madison is in the School of Fine Arts at Milwaukee.

Anthropology
Art History
Biological Aspects of Conservation
Botany
Chemistry
Communication (Speech Communication, Public Address, Speech Pathology and Audiology, Radio and Television)
Comparative Literature
Economics
English
French
Geography
Geological Sciences
German
Greek
Hebrew Studies
History
International Relations
Italian
Journalism
Latin
Linguistics
Mathematics
Philosophy
Physics
Political Science
Psychology
Russian
Sociology
Spanish
Zoology

Special Letters and Science Programs

Applied Mathematics and Physics. This course is identical in purpose with the course offered on the Madison campus. The degree requirements differ slightly in that 6 credits are required in history and no engineering graphics course is required.

Chemistry Course. The purpose of this course is to give students a strong professional training in chemistry.

This course differs from the major in chemistry in that German through 204 is required and by allowing more credits in chemistry to be counted toward graduation.

Admission to the junior year requires a 2.5 grade-point average for all chemistry, mathematics and physics courses.

Medical Technology. This four-year course leading to a bachelor's degree satisfies the requirements for admission to the examination given by the Board of Registry of Medical Technologists. Admission to the fourth year of study requires 90 credits with a grade-point average of 2.0. Application for the course is made before the second semester of the junior year. During your first three years, you must take freshman English, 6 credits of literature, 16 credits in chemistry and 16 in biology plus satisfying the foreign language requirement of the equivalent of one year in college in one language, and either three years of high school mathematics or 4 credits of college mathematics.

College of Applied Science and Engineering

The College of Applied Science and Engineering at The University of Wisconsin-Milwaukee offers a four-year program leading to the B.S. degree with professional options in computer science, electrical science, energy conversion, engineering mechanics, engineering science, industrial & operations science, materials science, mechanical design and structural engineering. The engineering science option can be arranged to cover special fields of interest such as computer science, chemical engineering, transportation engineering, etc. The program is planned to provide the student with:

1. Sound training in the basic sciences of mathematics, physics and chemistry.

2. A well organized common core of engineering science courses.

3. Integration of social and technological concepts.

4. An introduction to engineering design concepts that will serve to prepare the student for a specific field or will pave the way for further study and specialization through a graduate program.

The first two years of the program, most or all of which can be completed at The University of Wisconsin Center System campuses, are built around a common core of basic sciences with some required social study and humanities electives to add perspective. Portions of the sophomore year, as well as the junior year, emphasize a common core of fundamental applied engineering science courses. The last half of the junior year and the senior year permit a degree of specialization in one of the engineering option areas listed above.

A suggested curriculum sheet is available to assist students taking their freshman and sophomore work at the UW Center System campuses and planning to transfer to UWM.

For further information consult the current bulletin of the UWM College of Applied Science and Engineering.

Cooperative Engineering Education

Cooperative engineering education is an educational program wherein regular periods of campus study (semesters or summer sessions) are alternated with training periods in a cooperating industry. The student benefits from early and planned experiences in engineering work in industry and also obtains a source of income to help carry him through his schooling. Many companies are participating in this program.

The requirements for participation are:

1. The student must be completing or have completed his freshman year with a satisfactory grade-point average.

2. The selection of students will be made by the participating companies after suitable interviews.

3. The student's continuation in the program would be dependent upon the maintenance of a satisfactory academic and work record.

4. The student's senior year is to be conducted entirely on campus without an intervening work period.

Students who are interested and desire more detailed information should contact the cooperative engineering education program coordinator.

School of Architecture

The School of Architecture is newly established at UW-Milwaukee, and admitted the first students to the junior year in the fall of 1969. The professional program is six years in length and leads to a degree of Master of Architecture. Students who complete the first four years of the curriculum will receive a degree of Bachelor of Science in Architectural Studies.

Students are admitted to the School of Architecture in the junior year if they have completed 58 credits with a 2.0 cumulative grade-point average. This requirement is subject to change, with any change in grade-point average effective for the year following an announcement of change. Students are encouraged to gain experience in the physical and engineering sciences, the humanities and fine arts, and the social sciences. Because design depends on skills as well as information, you should be concerned with developing skills in some of the following areas: mathematics (calculus and analytical geometry), probability and statistics, computer science, logic, verbal communication (composition and public speaking) and visual communication (freehand drawing, drafting and typography).

You will be asked to present evidence of activities related to architecture by which the faculty may assess your inter-

est and commitment to the study of architecture. Such a portfolio might include the following kinds of documents:

1. Letters from architects, contractors, builders, planning offices or landscape architects indicating that the student had been employed by them in work related to architecture or an allied design or construction profession.

2. Drawings, photographs, painting or photographs of sculpture done by the student and done on the student's own initiative and not for a class or formal course of study. Skill in such work is not in question, since our concern is not with skill, but with interest.

3. An essay on an environment topic, for example, public housing, slum areas, pollution, public transportation, trailer parks, conservation of natural resources or the like.

4. Evidence of participation in advocacy activities, or service in the Peace Corps, VISTA, Head Start or the like.

5. Evidence of entrepreneurial activities, or political activities, or other leadership activities.

The principal thrust of such evidence should be to demonstrate the student's initiative, experience and willingness to accept decision roles, sensitivity to the visual world and relative maturity of judgment. Above all, the student should show interest in making changes in his environment.

School of Business Administration

A program leading to a BBA degree is offered at Milwaukee with professional options available in the following areas: accounting, finance, industrial relations, marketing, industrial operations management, quantitative analysis, real estate and urban development, and special options for specific needs of students.

For admission to the School of Business Administration at UWM, it will be necessary to have junior standing (a minimum of 58 credits) and a grade-point average of at least 2.0 on all work attempted. If you plan to work toward a degree in business administration at UWM, it is suggested that during your freshman and sophomore years at a Center System campus, you try to complete as much of the following as possible:

1. Completion of the freshman English requirement;

2. 12 credits in humanities and fine arts;

3. 12 credits in social sciences, at least 6 credits of which should be in one of the following fields: anthropology, sociology or psychology.

4. Economics 103 and 104;

5. 6 credits in physical or natural science—astronomy, botany, chemistry, geography, geology, physics or zoology.

It is recommended that you refer to the catalog of the UWM School of Business Administration for the specific requirements leading to the BBA degree. Particular attention is directed to the mathematics and accounting course requirements, part of which may be completed at your local campus.

The course Business 200, Introductory Accounting, is recommended for all business students and Business 201, Intermediate Accounting, is recommended for those planning to elect the accounting option at UWM and as an elective for others. If you have adequate mathematics preparation, you are encouraged to elect Mathematics 221 and 222 in the Center System in satisfaction of the UWM business mathematics requirement.

It is expected that on completion of sophomore work at the freshman-sophomore campus, you will be admissable directly to the UWM School of Business Administration.

School of Education

The School of Education offers curricula for the preparation of teachers and administrators and of students specializing in allied fields. There is a range of different study programs, depending upon which field is chosen for specialization.

Admission to the School of Education requires a cumulative 2.0 grade-point average, based on a minimum of 58 credits. Because a grade-point average does not demonstrate potential teaching effectiveness, the school requires each applicant to have a direct experience with children in an organized school/agency situation. Students on the Milwaukee campus during their freshman or sophomore year are expected to register for one of the field work courses offered by the School of Education. Students who transfer to UWM after they have junior standing have two alternatives in meeting this requirement: 1) register for the field work course and the professional courses in educational psychology, etc. pending admission to the School of Education, or 2) work in a school or agency dealing with children and present a recommendation, from a supervisor within that agency, concerning your effectiveness in working with children in situations such as summer camp counseling, playground work or as a teacher's aide.

The School of Education requires certification of proficiency in speech which can be met by enrolling in a speech skills course such as Speech 101 and requesting the cer-

tification while enrolled in the course. You are also asked to present proficiency in English. Such proficiency is determined by the UWM English Department. Students with an average of "A" or "B" in English courses, including at least one composition course, will ordinarily be certified as proficient. Further testing and/or course work may be required of students with lower grades in English.

Art Education

A curriculum leading to the B.S. degree and certification for teachers and supervisors of art is offered. (Students also may choose to receive the Bachelor of Fine Arts degree and enroll in the School of Fine Arts.)

Business Teacher Education

In cooperation with the UWM School of Business and the Madison Schools of Education and Business, students may take all of the work in the Business Teacher Education curriculum on the Milwaukee campus except the sixth and seventh semesters, which must be completed on the Madison campus.

Elementary Education

Two undergraduate curricula are offered for the preparation of elementary school teachers leading to the B.S. degree: (1) a curriculum to prepare teachers for nursery, kindergarten and primary grades (one, two and three); (2) a curriculum to prepare teachers for grades one through six.

Exceptional Education

The department of exceptional education offers four undergraduate curricula for training teachers of children who so deviate from the average as to require special educational procedures which cannot be carried out in regular classrooms. The curricula lead to the B.S. degree and satisfy the state certification requirements for teaching in the special fields of: (1) education of the deaf and hard of hearing, (2) education of the mentally retarded, (3) speech pathology and audiology and (4) behavior disorders.

Junior High/ Middle School (Early Adolescent)

A curriculum leading to the B.S. degree for those interested in preparation for teaching at the early adolescent age level is offered. Principal teaching areas are language arts, social studies, mathematics and science, although other fields are available.

Library Science

A 22-credit minor in library science is offered to prepare students for teacher-librarian positions and to meet the licensing requirements of the State of Wisconsin.

Music Education

A curriculum leading to the B.S. degree and certification for teachers and supervisors of music is offered. (Students also may choose to receive the Bachelor of Fine Arts degree and enroll in the School of Fine Arts.)

Physical Education

Students interested in the area of physical education are able to initiate study toward either a major or minor. The four-year program for majors in physical education provides an opportunity for men and women to qualify for certification as instructors or supervisors in the field of physical education at both the elementary and secondary levels.

Students wishing to minor in physical education must be enrolled in a teacher preparation program other than physical education. Students with a minor in physical education should note that certification to teach is given only for a period of seven years; should they wish to remain in the field of physical education they must complete a major.

Recreation Major This major is offered to students interested in becoming part of this growing and necessary public service. Recreation majors should also complete a major in another teacher program and qualify for certification to teach.

Secondary Education This program leads to the B.S. degree and certification to teach most of the usual high school subjects, with the option of choosing a major teaching field and a minor teaching field or one broad field area.

Theatre Arts A curriculum leading to the B.S. degree and certification is offered. (Students may also choose to receive the Bachelor of Fine Arts degree and enroll in the School of Fine Arts.)

School of Fine Arts The School of Fine Arts, composed of the departments of art, dance, music and theater arts offers four-year programs leading to the degree of Bachelor of Fine Arts. In addition to specialization in any of the four departments, the School of Fine Arts offers a degree in inter-arts. The inter-arts degree requires that courses be taken in your choice of three out of the four departments. Courses in creative writing are also offered in the School of Fine Arts.

The four departments of the School of Fine Arts offer the following degree programs:

Art Majors in: art education, painting, sculpture, graphics, art metal, ceramics, weaving and advertising design.

Dance Majors in: professional dance and dance notation.

Music Majors in: piano or organ, voice, instrumental, theory and composition, music history, music therapy, music education (vocal, instrumental, or combination).

Theatre Arts Majors in: acting and directing; design and technical theatre; history, literature, and criticism; playwriting and directing; theatre arts education.

Teaching programs in art, music and theatre arts are arranged in cooperation with the School of Education. You need a 2.0 cumulative grade-point average and 58 earned credits to be admitted to a certification program or the School of Education. In the education programs, you have a degree option: you may choose to receive a Bachelor of Fine Arts degree with certification from the School of

Education; or a Bachelor of Science degree in Education from the School of Education.

The School of Fine Arts requires 130 credits for graduation with the Bachelor of Fine Arts degree. Of the 130 credits, 45-50 must be taken in the basic core curriculum of academic studies. The required courses are: (1) English through 102; and (2) 27 credits from courses in the humanities, social sciences, science or mathematics. Nine credits are generally required in each group area.

All students are required to take courses not only in their major but in the other arts so that they have a comprehensive view of dance, music, theatre and visual arts, and their relationships.

For students going into any of the teaching programs, 3 credits in speech is required plus 6 credits in United States history. This total of 9 credits fulfills the required course in the social science area.

School of Nursing

The baccalaureate program is designed for high school graduates, college students and graduates of diploma and associate degree programs in nursing.

Students are admitted to the program at the beginning of the junior year with application made at the beginning of the sophomore year. A complete sequence of courses can be found in the UWM bulletin of the School of Nursing.

School of Social Welfare

The School of Social Welfare offers a bachelor's degree for those students interested in a liberal education as well as the professional study of social work.

You may apply for admission to the program after you have completed 58 credits. The general degree requirements to be followed differ from the general BA degree requirements at the Milwaukee campus. You will be expected to complete the BA requirements as shown in Section 1 of the Milwaukee work sheet, and section 3A of that same work sheet but you will not be expected to complete the other requirements shown on the work sheet. You will be asked to present 10 credits in natural science including two semesters of laboratory science, and either a continuous year course in history (History 101 and 102) or a semester of U.S. History plus another course such as Economics 103, Political Science 101 or 105, or Sociology 125.

The requirements of the major include a minimum of 20 credits in social welfare plus 30 credits in other social sciences; 15 of the 30 credits must be in one social science

field and the other 15 in at least two other social sciences. For this purpose, social sciences includes economics, political science, sociology, psychology and anthropology.

Bulletins and Catalogs

The following bulletins are available from the Office of Admissions and Records, 217 Mitchell Hall, Milwaukee, Wisconsin 53201.

General Information Brochure
College of Letters and Science Bulletin
College of Applied Science and Engineering Bulletin
School of Architecture Bulletin
School of Business Administration Bulletin
School of Education Bulletin
School of Library and Information Science Bulletin
School of Nursing Bulletin
School of Social Welfare Bulletin
Graduate School Bulletin
Summer Sessions Bulletin

The University of Wisconsin-Parkside

The nature and needs of highly industrialized southeastern Wisconsin are reflected in the development and growth of The University of Wisconsin-Parkside. Offering a broad educational program — the trademark of a UW campus — Parkside also stresses an academic program concerned with the economic, technological, scientific, social and cultural needs of a modern industrial society.

Named Parkside because of the adjacent Petrifying Springs Park, this new and growing campus is an example of modern urban planning principles in action. Buildings, which will be clustered around a library-learning center, the hub of the campus, are designed to blend with the beauty of the surrounding woodlands and prairies. Traffic is greatly restricted with parking facilities and most main roads located on the campus perimeter; the University provides shuttle bus service between parking areas and buildings. Other sections of the campus are used for recreation, sports and botanical study; much of the 700-acre site will be maintained as arboretums and natural prairies.

Actually, The University of Wisconsin-Parkside consists of three campuses: the new campus described above, where junior and senior level studies are offered, and the freshman-sophomore campuses at Racine and Kenosha, which will be phased out following the completion of additional buildings and expansion of facilities at the new central site. The two major buildings at the Parkside campus, Greenquist and Tallent Halls, provide classrooms, laboratories, offices and a student lounge. The library-learning center, communications arts building and multi-use physical education building are now in the planning and construction stage.

Although set in a rural location midway between Racine and Kenosha, Parkside is only 20 miles from Milwaukee and 60 miles from Chicago. UWP students have access to the recreational and cultural resources of both metropolitan centers, as well as those of Racine and Kenosha, two of southeastern Wisconsin's major industrial cities.

Approximately 5600 students will attend The University of Wisconsin-Parkside in 1971; the enrollment is expected to increase by some 1000 each year until 1980 as Parkside expands to meet tomorrow's challenge. Flexibility and innovation, so dominant in the development of both the campus and the academic program, will continue to be the key themes at Parkside.

Academic Units

Parkside has two principal academic units: the College of Science and Society, which offers a broad range of liberal arts and elementary and secondary education programs, and the School of Modern Industry, which offers programs in applied science and technology, business management and labor economics relating directly to the industrial, social and economic structure of the area.

The College of Science and Society consists of divisions of science, social science, humanistic studies and education. The School of Modern Industry includes divisions of engineering science, management science and labor economics.

In addition to the traditional single discipline majors, students may elect broad field majors such as earth science or life science. Instructional innovation and flexibility, especially appropriate to a new university, are accented at Parkside through early and continuous counseling, self-pacing provisions and special opportunities for work experience for credit in the student's major field.

With approval of the appropriate division, Parkside will accept for transfer a maximum of 90 credits from any accredited college or university; 72 credits from two-year campuses of The University of Wisconsin or Wisconsin State Universities; and up to one-half the credits required for a specific UWP degree from other accredited two-year institutions.

The University of Wisconsin-Parkside offers Bachelor of Art and Bachelor of Science degrees. A degree is awarded upon fulfilling the following requirements in either the College of Science and Society or the School of Modern Industry:

1. Completion of 120 credits.
2. Attainment of a minimum cumulative grade-point average of 2.0 on a 4.0 point scale.
3. Completion of a major of not less than 30 credits with a minimum 2.0 grade-point average in the major field.
4. Completion of 10 credits in natural sciences (including one lab course), 9 credits in social science and 9 credits in humanities.
5. Completion of two high school units in one foreign language or two college semesters in one foreign language. (One high school unit and one college semester in the same language are also acceptable.)
6. The course, The American Language, or its equivalent, i.e., freshman composition (unless exempt by examination).
7. A Divisional Seminar in a division other than the student's major.

All of the general degree requirements in natural science, social science, humanities, foreign language and the equivalent of the American Language course can be completed at the University of Wisconsin Center System campuses. The Divisional Seminar is waived for transferring students. Students should refer to The University of Wisconsin-Parkside catalog for details on major requirements. (Write John Elmore, Director of Admissions, The UW-Parkside, Wood Road, Kenosha, Wisconsin 53140, regarding questions on Center System and Parkside course equivalencies.)

The following distribution shows some of the courses offered at Center System campuses which fall into the areas of humanities, social sciences and natural sciences which will fulfill the above degree requirements.

Social Studies

Anthropology 100, 200, 204
Economics 101, 103, 104
Geography 110, 115, 350, 510, 514
History 119, 120, 201, 202, 255, 355
Political Science 101, 105, 106, 175, 201, 213, 222, 223, 243
Psychology 201, 202, 204, 205, 507, 530, 560
Social Science 201
Sociology 101, 102, 224, 260, 278, 530

Science

Astronomy 100, 200
Bacteriology 101
Biochemistry 201
Botany 100, 130, 160, 400, 450
Chemistry 102, 104, 107, 108, 201, 223, 341, 343, 344, 345
Genetics 160
Geography 120, 123, 124, 125
Geology 100, 101, 102
Physics 105, 106, 201, 202, 205
Physiology 104
Zoology 101, 125, 160, 300

Humanities

Art 104, 121, 122
English 200, 205, 209, 211, 251, 253, 255
French 221, 222
German 221, 222
Music 201, 202, 211, 212
Philosophy 101, 102, 103, 226, 241, 253, 254, 258, 520
Spanish 221, 222
Speech 130, 230, 231, 241, 242, 266, 343, 344

All credit courses taken in the University will apply toward the 120 credits needed for graduation.

The following chart indicates how the 120 credit requirement is composed.

General Education Requirements:		Min	Max
Social Science	9		
Humanities	9		
Nat. Sciences	10		
English	0-3		
Divisional Seminar	1		
Foreign Language	0-8		
	29-40	29	40
		Min	**Max**
Major (Some credits may count toward both major and general education requirements)		30	40*
		59	80
Electives		61	40
		120	120

*Except in the case of Applied Science and Technology where the major requires 58 credits and electives range from 28-43.

The generous elective range, from a minimum of 40 credits to a maximum of 61 credits, may be used at the student's discretion.

Following are some suggestions:

1. Additional work in major field.
2. Second Major (30-40) credits.
3. Teaching Minor (22 credits).
4. Education certification requirement.
5. Special program centering about student's individual interests.
6. Elective credit which doesn't fit into either major or general education requirements: i.e., home economics, agriculture, etc.

The College of Science and Society

The larger and more general educational unit of The University of Wisconsin-Parkside, this College embraces the sciences, social sciences, humanities, and elementary and secondary teacher certification program. Broad field majors representing combinations of disciplines as well as single-discipline majors are offered in the divisions of

science, social science and humanistic studies. The division of education offers elementary and secondary teacher certification programs to be combined with an academic major.

Division of Science

The constituent elements of this division are the life sciences, mathematics, the physical sciences (chemistry, earth science and physics) and psychology. Majors offered are chemistry, earth science, life science, mathematics, physics and psychology. Within each discipline a variety of options are available.

Division of Social Science

Included within the Social Science Division are programs in economics, geography, history, political science, sociology, anthropology, comparative modern industrial society and modern American society.

The division also provides for special off-campus internship programs for which the student earns academic credit. Presently, two programs are in effect: an internship program with welfare agencies in Racine and Kenosha which is open to sociology majors primarily and an internship program involving the Community Action Program in Racine for students majoring in the social sciences.

Comparative Modern Industrial Societies

This interdisciplinary major makes an integrated inquiry into the nature of modern industrial societies. A student will select his own emphasis and focus of study from such areas as comparative national methods of financing social services, a comparative study of government involvement in and regulation of business, and an analysis of the impact of industrialization on family life and structure. The program is flexible and is individualized for each student.

Modern American Society

This interdisciplinary major is a problem-oriented program of study which examines the foundation, structures and processes of contemporary American culture and its subcultures. A particular problem or topic can be analyzed through a variety of academic approaches. A student defines his own area of interest, develops methodological skills and selects a cluster of appropriate courses.

Students electing this major will have essentially the same postgraduate study and career objectives as students who enroll in conventional majors in political science, economics, history and sociology. They will be prepared for subsequent specialized work in law, social work and the teaching of the social studies. They will have access to positions

in government service, and they will be broadly prepared for graduate study in any of the social science fields.

Division of Humanistic Studies

The Division of Humanistic Studies includes language, literature, communications, philosophy, and the visual and performing arts. Exploration of significant human accomplishments in these and other fields encourages the student to develop heightened awareness, creativity, critical discrimination and a sense of enduring value and prepares him for various related professional fields. Majors offered are: art, communication, English, French, German, music, philosophy and Spanish.

Division of Education

The Parkside program offers teaching certification for elementary and secondary schools. It requires elementary and secondary students to have an academic major in addition to the education courses. The secondary education student will take 18 credits of education courses, a major of 34 credits and is encouraged to elect an additional academic major or minor. The elementary education student will take 27 education credits and a major of 30 credits.

The School of Modern Industry

Parkside's special mission to the industrial society of southeastern Wisconsin is highlighted in a comprehensive School of Modern Industry. Its objectives are to train executives who have a firm grasp of technology, to train engineers who understand business administration and to train labor economists who have had formal education in management and engineering.

The School has three divisions: the Division of Engineering Science, the Division of Management Science and the Division of Labor Economics.

Bulletins and Catalogs

For catalogs or other additional information, write: Student Affairs Office, The University of Wisconsin-Parkside, Kenosha, Wisconsin 53140.

ADMINISTRATION • CALENDAR • INDEX

ADMINISTRATION

University Center System Departmental Administration 1970-71 Academic Year

Instruction in the University Center System is supervised by the following departmental chairmen who are resident on the Madison or Center System campuses.

Anthropology and Sociology ..... Edward Rothstein
Art Education ..... James A. Schwalbach
Botany and Zoology ..... Delbert E. Meyer
Chemistry and Physics ..... Robert G. Splies
Economics and
Business Administration* .....
Engineering ..... Donald E. Gritzmacher
English ..... George B. Rodman
French and Spanish ..... Delbert L. Gibson
Geography and Geology ..... Robert W. Finley
German ..... Henry Geitz, Jr.
History ..... R. Gordon Goodrum
Journalism ..... James A. Fosdick
Mathematics ..... Marion B. Smith
Music ..... John A. Fitzgerald
Philosophy ..... Robert R. Ammerman
Physical Education ..... Carl E. Sanger
Political Science ..... Cedric Tarr
Psychology ..... Charles S. Bridgman
Speech ..... David F. Hundhausen

*This position was not filled at time of publication.

Administrative Officers, 1970-71 Academic Year

Fred Harvey Harrington ..... President of the University
Robert L. Clodius ..... Vice President of the University
L. H. Adolfson ..... Chancellor, University Center System
Durward Long ..... Vice Chancellor
Darwin A. Slocum ..... Assistant Vice Chancellor
Robert L. Borcherding ..... Director of Business Affairs
Mrs. Gladys S. Meier ..... Registrar and Director of Admissions
Ronald J. Nimmer ..... Acting Director, Center System Libraries
Arthur E. Mancl ..... Architect and Planner
Mrs. Trudi Stone ..... Secretary of the Faculty
David R. Stucki ..... Director of Institutional Studies
Miss Mollie E. Buckley ..... Director of Public Information
Antone F. Kucera ..... Coordinator of Student Financial Aids and Student Services

Administrative Staff, University Center System Campuses, 1970-71 Academic Year

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Miss Janet Schmidt, Librarian
Stanley Wayward

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Mrs. Georgiane Bentzler, Librarian

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Martin A. Stabb, Assistant Dean
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....., Director of Student Affairs*
Alex A. Nagy, Assistant to the Dean for Public Information
Mrs. Sue Westfall, Librarian

*This position was not filled at time of publication.

Leonard Zimney

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Harry J. Maxwell, Dean

ADMINISTRATION

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Roland A. Baldwin, Assistant to the Dean for Student Affairs
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Miss Mary Bleecker, Librarian

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Murray Deutsch, Dean
Delbert E. Meyer, Associate Dean for Academic Affairs
Wayne Knopf, Director of Student Affairs
Bruce P. Warner, Academic Counselor and Financial Aids Officer
Edward M. Stodola, Coordinator of Student Activities and New Student Orientation
Miss Arlene M. Wroblewski, Coordinator of High School/ College Relations
Robert W. Jozwiak, Director of Public Information
Mrs. Laraine O'Brien, Coordinator for Community Relations
Michael B. Pate, Librarian (On Leave)

CALENDAR

Summer Session 1971	Eight-week session begins	June 28 (M)
	Independence Day, legal holiday	July 4 (Su)
	Eight-week session ends	Aug. 21 (S)
First Semester 1971-72	Advance registration for new freshmen	June 21-July 30
	Registration	Sept. 15-17 (W-F)
	Instruction begins	Sept. 20 (M)
	Thanksgiving recess	Nov. 25-28 (Th-Su)
	Christmas recess	Dec. 18 (S, noon)
	Classes resume	Jan. 3 (M)
	Study period (no classes, no exams)	Jan. 19, 20 (W, Th)
	Final examinations	Jan. 21-29 (F-S)
Second Semester 1971-72	Registration	Feb. 1-4 (Tu-F)
	Instruction begins	Feb. 7 (M)
	Spring recess	Mar. 31-Apr. 9 (F-S)
	Memorial Day, legal holiday	May 30 (Tu)
	Study period (no classes, no exams)	May 31, June 1 (W, Th)
	Final examinations	June 2-10 (F-S)
Summer Session 1972	Eight-week session begins	June 26 (M)
	Independence Day, legal holiday	July 4 (Tu)
	Eight-week session ends	Aug. 19 (S)

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Office of the Registrar
The University of Wisconsin Center System
602 State Street, Madison 53706